Physiotherapy for Athletes with an Intellectual Impairment

Introduction:

According to the World Health Organisation, intellectual disability means a significantly reduced ability to understand new or complex information and to learn and apply new skills.

Intellectual impairment can be characterised by below average intelligence level (based on an IQ test) and by difficulties in ability to function in areas of everyday living such as communication, self-care and social situations.

People with an intellectual impairment can and do learn new skills, but they may develop more slowly than those with average or above average intelligence and adaptive skills. Note that there is a lot of individual variation in presentation and effects of intellectual impairment.

Common components of Intellectual Impairment

- Learning difficulties
- Poor literacy/numeracy skills
- Lack of decision making ability
- Poor short term memory
- Inability to think in abstract terms
- Lack of opportunity to be aware of their own physical capabilities
- Concentration not consistent
- Lack of self-esteem and generally poor attitudes to their own social competence

Common impacts of Intellectual Impairment

- Require longer time to learn and practice a skill
- Experience difficulty in learning complex skills
- Require skills and tasks to be broken down into 'small steps'
- Benefit from instructors to use simplified language and repeat instructions

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Physiotherapy Considerations:

Focus on the athlete first and what they can do instead of want they can't.

- Physiotherapists can help best when they understand the nature of the intellectual impairment, so start by developing an understanding of what things the individual can do, and what things they find challenging.
- Set realistic goals relating to a person's physical ability and sport skill proficiency.
- Be flexible with expectations of the athlete's participation, break skills/tasks down into smaller parts wherever possible and if necessary modify requirements of the skills.
- Communication is critical. Keep directions simple, brief and to the point. Talk to the athletes as adults, using consistent language to describe things. Ask the athlete how they would describe something and adapt language to improve understanding. Check the athlete understands instructions by asking questions or getting them to explain in their own words what is expected, to clarify what has been understood. Choose the way instructions are presented to match the way the athlete learns (i.e. demonstration, visual, written, verbal).
- Use verbal cues such as "Jump like a frog" (remember that your words may be taken literally so choose them carefully).
- Use repetition to assist the learning process but be aware of boredom and attention span conducting too many repetitions. Keep the athlete busy by using a variety of short tasks.
- Slow down the exercise or movement pattern to ensure the skill is practiced and learnt effectively.
- Be prepared to modify demonstration techniques, provide tactile demonstration or have the athlete stand close by and copy a demonstration from you. Any tactile input should have prior consent from the athlete.
- Some athletes find pacing and tempo work challenging. Auditory cues i.e. metronome may assist athletes with maintaining a certain pace.
- Be generous with praise and acknowledge achievements frequently.
- Consider the effects of environmental triggers and challenges and try to minimise exposure to these through modifying the environment to make the athlete more comfortable. Establish if there is a preferred situation or environmental conditions that promotes better cognitive function, for example quiet, or less crowded environments.

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- Familiarity is important in order to assist with independence and trust in different environments. It is important to have some consistency so that the athlete becomes familiar with the environment. Consider the effect of unfamiliar environments on the athlete i.e. in travel situations, and work with them to provide guidance and orientate them in their new environment. Working with a buddy (e.g. in gym or in new environments) is helpful.
- Athletes with intellectual impairment may exhibit emotions more readily and might not differentiate between disappointment, anger, fear or sadness. Be understanding in the training and competition environment and allow the athlete to remove themselves safely from a stressful environment.
- Be aware of any associated medical conditions e.g. sensory impairment, epilepsy, behaviour issues etc. and what impact these may have on the athlete.
- Be flexible, positive, patient and understanding. For example, athletes might require help to read and complete forms like anti-doping education or reminders to follow schedules. Consider that some may need assistance when handling money.
- Set clear rules and boundaries.

Medical risk factors:

Athletes with an intellectual impairment will sometimes have other conditions such as cerebral palsy, epilepsy or heart conditions – it is important to be aware of any underlying conditions and what treatments and management regimes already exist for these.

Resources, Links and References

National Sport Inclusion Alliance. Fact sheet: Athletes with an Intellectual Disability

NSIA - National Sport Inclusion Alliance http://nsia.org.au/

AUSRAPID - Australian Sport and Recreation Association of Persons with Integration Difficulties http://ausrapid.org.au/

INAS – For Para-Athletes with an Intellectual Disability http://www.inas.org/

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