

# CASE STUDY:

## AUTISM SPECTRUM DISORDER (ASD) & ADHD



In 2017, Lauren McDougall, Accredited Exercise Physiologist and owner of Achieving Abilities, spent 11 weeks at a High School Disability Unit, working with 20 students between the ages of 13 and 19 years of age. All of these students had an intellectual disability, with 13 diagnosed ASD or/and ADHD.

### EXERCISE INTERVENTIONS

During her time working closely with the students at the high school, Lauren used a variety of individualised and small group exercise interventions. Individualised interventions focused on individuals' needs and strengths, but typically involved improving muscular strength and endurance to increase functional capacity to assist activities of daily living, improving aerobic capacity and endurance to enhance participation and improve health outcomes, and improving motor planning and coordination. In some instances, specific muscle imbalances or other needs were also addressed. In small groups, similar focus areas were addressed, however, with the additional benefit of socialisation with peers, and cooperating and supporting one another.

### RESULTS

A range of physical improvements were observed, including:

- improved cardiovascular fitness
- increased muscle strength
- improved motor planning and coordination
- improved balance
- improved physical capacity

Several other improvements were observed, such as improvements in:

- self-confidence
- willingness to have a go
- improved behaviours and emotional regulation
- improved peer interactions

Examples of feedback from teaching staff from a feedback questionnaire regarding the impact of the exercise interventions are listed below.

*"Definitely beneficial. Helping establish being active as part of the norm. Students are gaining self-confidence and interacting more."*

*"Exercise seems to provide tension relief, and gets rid of excess energy. They seem refreshed and more alert after exercise. They are more settled when returning to the classroom, therefore able to concentrate more."*

*"Some lower functioning students are certainly calmer after exercise sessions, and more willing to interact with others."*

*"I see more confidence in some kids and the belief they can try anything and have fun. Some students seem happier in themselves, more confident to try things."*

*"They appear more energised and confident. Many are learning to work together as a team. They appear more energised and happier, and engaging with one another more."*

*"Some of the students have improved in confidence and increased physical activity and willingness to participate in physical activity. The students seem more receptive and more confident to attempt different things."*

To summarise, the recurring themes of the feedback given was related to overall confidence, trying new things, better concentration, and interacting with others – all supportive of the benefits identified in the literature.