

## MASTER'S THESIS

### Effects of exercise-based interventions for children with Autism Spectrum Disorder (ASD): a systematic review and meta-analysis

Sam, Ka Lam Sam

*Date of Award:*  
2015

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## **ABSTRACT**

Autism Spectrum Disorder (ASD) is a prevalent neurological syndrome observed even in childhood stages. Children with autism have a certain range of deficits on social interaction, communication and coordination. Exercise program has been commonly adopted as an intervention for ASD children on developing both of their motor and social skills, as well as maintaining a certain fitness level. This project is a systematic review and meta-analysis study which summarizes the recent fifteen years (2000-2015) of control-trial exercise-based interventions for ASD children and evaluates their effectiveness from three aspects (according to the outcome measures): 1) Exercise Performance & Sport/Skill-related Fitness (EXE); 2) Physiological & Biometric Indicator (PHY); and 3) Social Cognition & Psychological Well-being (SOC). The results showed a positive effect in all three aspects: .763, .412, and .505 respectively. Further studies were recommended on investigating the mechanism explaining the psycho-social and physiological effects of exercise programs on ASD children.

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