

# Exploring the influence of parent coaches to improve motivation and confidence toward physical activity in children.

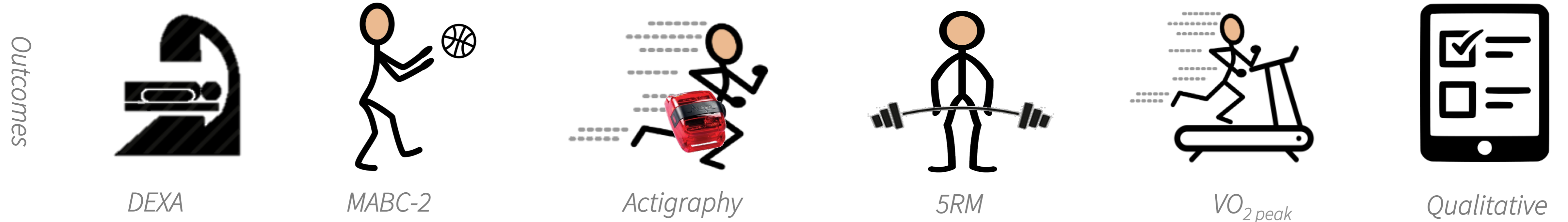
Ms Kemi E Wright, Dr Bonnie J Furzer, Dr Melissa K Licari, Dr James A Dimmock & Dr Ben Jackson

School of Human Sciences (Exercise & Sport Science), The University of Western Australia. Perth WA, Australia

Previous research has demonstrated that children's physical activity (PA) levels are declining, particularly in children who have physical, developmental, and/or behavioural barriers to PA<sup>1,2</sup>. With increasing evidence linking low PA levels to poor mental and physical health outcomes, understanding the role parents may play in increasing children's PA is warranted.



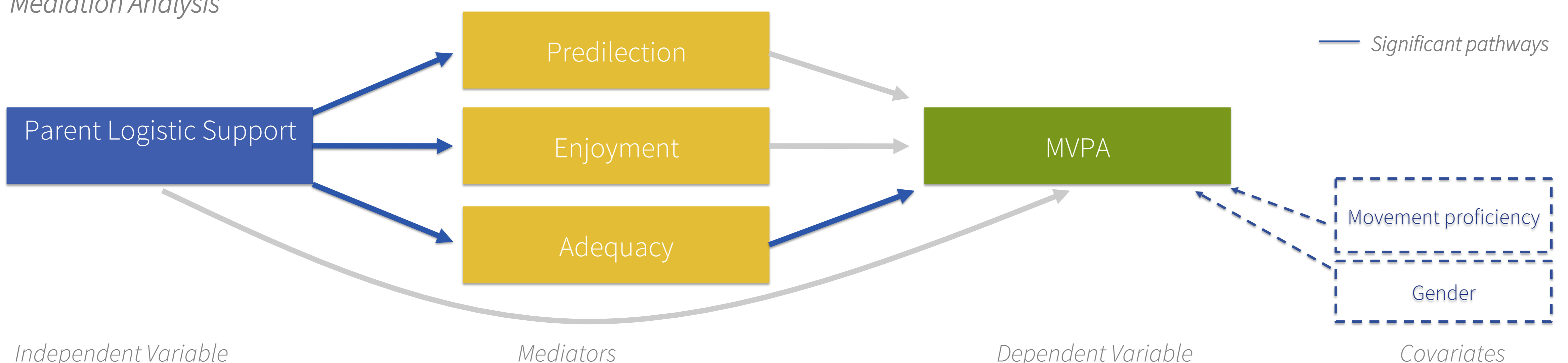
One hundred and seventeen children (mean age 8.8±1.9yrs) with varying levels of movement proficiency were recruited from the community. Movement proficiency was assessed using the Movement Assessment Battery for Children-2 test (MABC-2); 60 classified as typically developing (TD; >17<sup>th</sup> %), 19 considered to be 'at risk' of low movement proficiency (6-16<sup>th</sup>%), and 38 with low movement proficiency (LMP; <5<sup>th</sup>%). Multivariate analysis of variance was conducted to determine between group differences across variables, and mediation analysis was performed to explore relationships between key outcome variables.



## RESULTS

- Compared to TD children, children with LMP had lower physical activity ( $p= 0.036$ ), muscle strength ( $p \leq 0.001$ ), more body fat percentage ( $p= 0.019$ ), predilection ( $p \leq 0.001$ ) and adequacy ( $p \leq 0.001$ ) regarding PA, and received less logistic support (e.g., transportation) from their parents ( $p = 0.012$ ).
- Children 'at risk' of low movement proficiency differed only in muscle strength to TD ( $p \leq 0.001$ ) and LMP children ( $p \leq 0.001$ ).
- No other significant differences between groups were found.

### Mediation Analysis



## DISCUSSION

- Physical and psychosocial discrepancies exist between TD children and those with and 'at risk' of low movement proficiency.
- Perceptions of greater parent logistical support for PA predicted stronger perceptions of adequacy among children, which subsequently predicted greater PA levels.
- Findings from this study are currently being used to inform a parent-focused behaviour change feasibility trial to be carried out in a community based PA program.

### KEY REFERENCES:

1. Batey, C. A., Missiuna, C. A., Timmons, B. W., Hay, J. A., Faight, B. E., & Cairney, J. (2014). Self-efficacy toward physical activity and the physical activity behavior of children with and without Developmental Coordination Disorder. *Human Movement Science*, 36, 258–271
2. Cairney, J., Veldhuizen, S., & Szatmari, P. (2010). Motor coordination and emotional-behavioral problems in children. *Current Opinion in Psychiatry*, 23(4), 324–329.

The authors wish to acknowledge the families who gave up their time to be involved in this research.



THE UNIVERSITY OF  
**WESTERN  
AUSTRALIA**