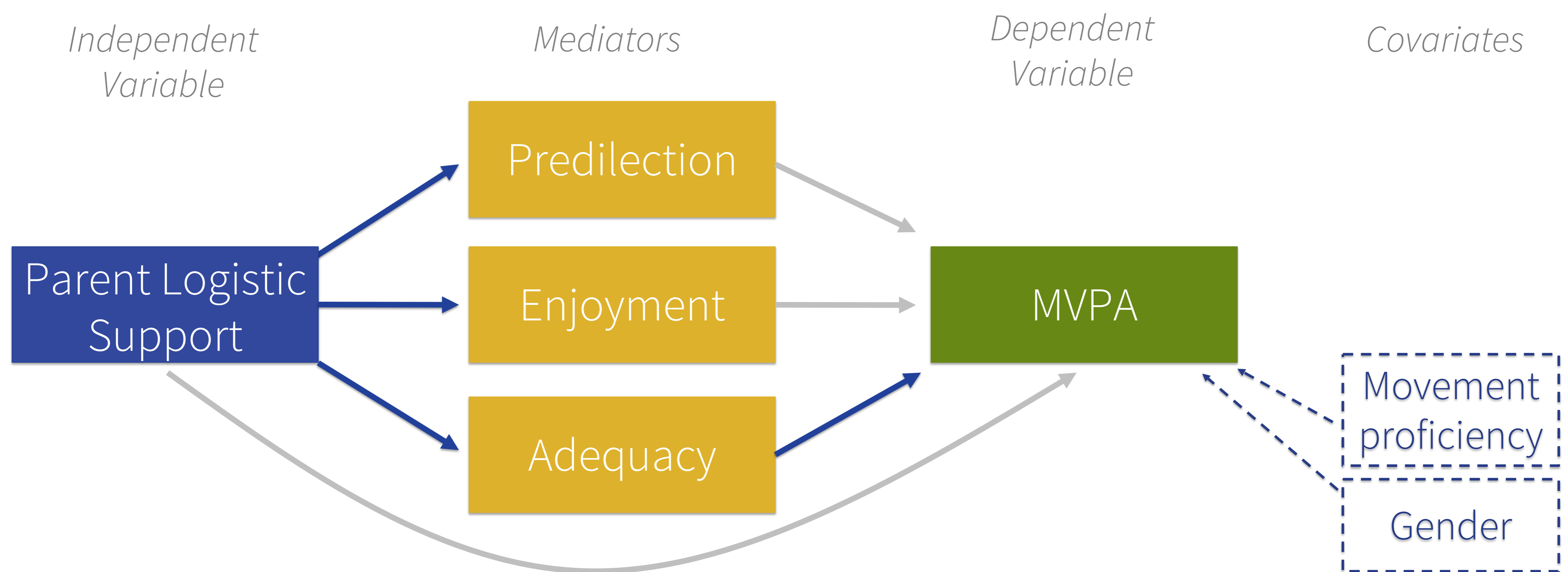


Relationship between child physical activity levels, child self-perceptions and parental physical activity support

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

School of Human Sciences, The University of Western Australia

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. Given the important role parents may play in influencing PA behaviour patterns, the aim of this study was to explore the effects of parental PA support on children's self-perceptions and PA levels.



METHODS

One hundred and seventeen children (74 male and 46 females; mean age: 8.8 ± 1.9 years) were recruited from the community. Movement proficiency was evaluated using the Movement Assessment Battery for Children-2 test. Moderate to Vigorous Physical Activity (MVPA) levels were measured using Actigraph GT3x accelerometers worn on the hip for a minimum of 5 days.

The Children's Self Perceptions of Adequacy in and Predilection for PA questionnaire was administered to determine children's:

- perceptions of their adequacy in performing PA,
- likelihood of selecting (predilection) PA, and
- enjoyment of PA.

Children's perceptions of parental PA support were measured using the Activity Support Scale for Multiple Groups.

Mediation analysis was performed to explore relationships between perceptions of parents' logistic support (independent variable), children's physical activity-related adequacy, enjoyment, and predilection (mediators), and PA (dependent variable). Children's gender and movement proficiency were considered as covariates.

RESULTS

Analyses of independent variable to proposed mediator pathways (i.e., from perceptions of parent support to predilection, enjoyment, and adequacy) revealed significant positive effects for perceptions of parent support in relation to predilection ($estimate = 5.01, SE = 1.07, t = 4.65, p < .001$), enjoyment ($estimate = 2.22, SE = .45, t = 4.93, p < .001$) and adequacy ($estimate = 3.78, SE = .80, t = 4.73, p < .001$) regarding PA.

A significant positive effect between perceptions of physical activity adequacy and MVPA ($estimate = 5.27, SE = 2.58, t = 2.05, p = .04$) was observed, such that stronger confidence in one's PA capabilities predicted greater levels of physical activity. An indirect effect from parents' logistic support to MVPA through adequacy suggests an association between greater perceived parent support for physical activity and children's objectively-measured MVPA (via heightened adequacy perceptions). The effects seen in this prediction model hold even when accounting for children's gender and movement proficiency level.

DISCUSSION

- Children who reported receiving high levels of parent logistic support displayed greater predilection, enjoyment, and adequacy.
- Perceptions of greater parent logistical support for PA → predicted stronger perceptions of adequacy among children → 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.



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