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Children physical activity correlates and parent physical activity do not have a strong association with physical activity amongst adolescents

JN Rachele¹, TL Washington¹, TF Cuddihy^{1,3}, SM McPhail^{2,4}

¹Queensland University of Technology, School of Exercise and Nutrition Sciences and Institute of Health and Biomedical Innovation, Brisbane

²Queensland University of Technology, School of Public Health and Social Work and Institute of Health and Biomedical Innovation, Brisbane

³Royal Melbourne Institute of Technology, School of Health Sciences, Melbourne

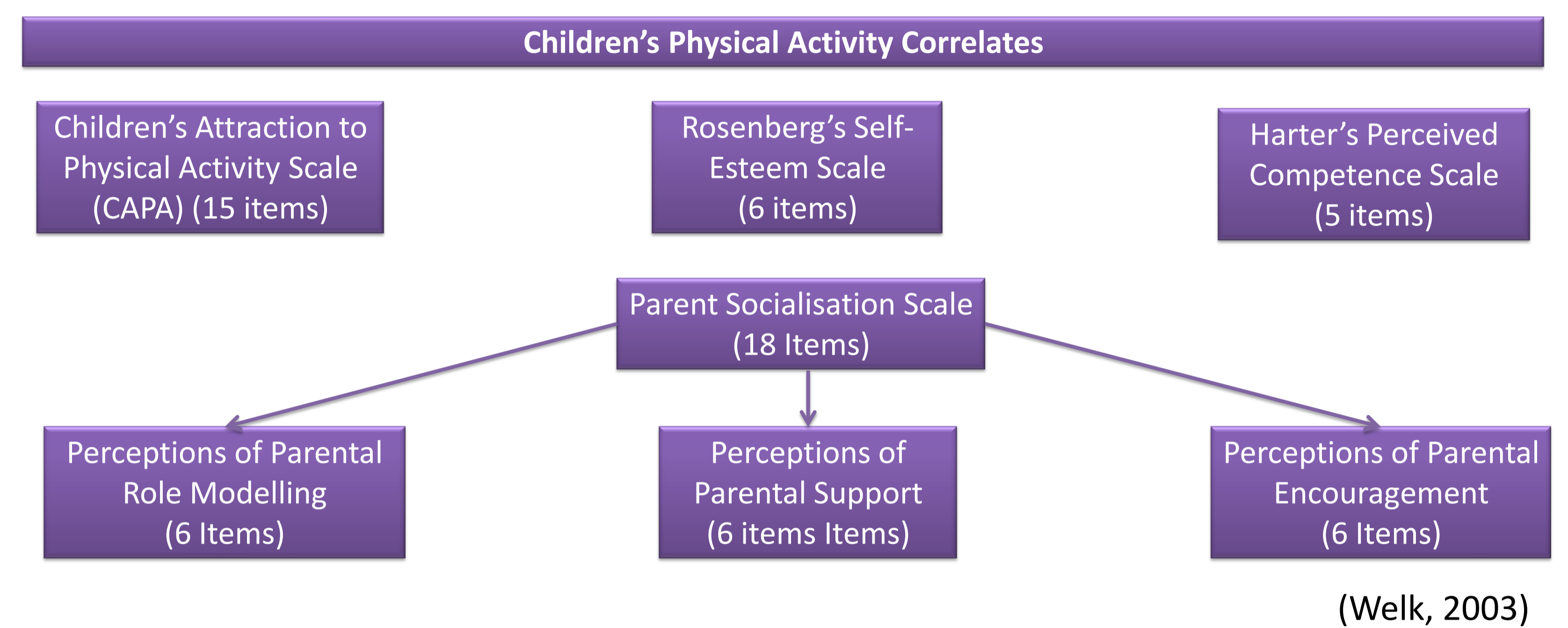
⁴Queensland Health, Centre for Functioning and Health Research, Brisbane

Background

Physical activity is a key modifiable behavior impacting a number of important health outcomes. The path to developing chronic diseases commonly commences with lifestyle patterns developed during childhood and adolescence. This study examined whether parent physical activity and other factors correlated with physical activity amongst children are associated with self-reported physical activity in adolescents.

Methods

A total of 115 adolescents (aged 12-14) and their parents completed questionnaire assessments. Self-reported physical activity was measured amongst adolescents and their parents using the International Physical Activity Questionnaire for Adolescents (IPAQ-A), and the International Physical Activity Questionnaire (IPAQ) respectively. Adolescents also completed the Children's Physical Activity Correlates (CPAC), which measured factors that have previously demonstrated association with physical activity amongst children. To examine whether parent physical activity or items from the CPAC were associated with self-reported adolescent physical activity, backward step-wise regression was undertaken. One item was removed at each step in descending order of significance (until two tailed item alpha=0.05 was achieved).



Results

A total of 93 (80.9%) adolescents and their parents had complete data sets and were included in the analysis. Independent variables were removed in the order: perceptions of parental role modeling; importance of exercise; perceptions of parental encouragement; peer acceptance; fun of physical exertion; perceived competence; parent physical activity; self-esteem; liking of exercise; and parental influence. The only variable remaining in the model was 'liking of games and sport' (p=0.003, adjusted r-squared=0.085).

Discussion

These findings indicate that factors associated with self-reported physical activity in adolescents are not necessarily the same as younger children (aged 8-11). While 'liking of games and sport' was included in the final model, the r-squared value did not indicate a strong association. Interestingly, parent self-reported physical activity was not included in the final model. It is likely that adolescent physical activity may be influenced by a variety of direct and indirect forms of socialization. These findings do support the view that intrinsically motivated themes such as the liking of games and sport take precedence over outside influences, like those presented by parents, in determining youth physical activity behaviors. These findings do not suggest that parents have no influence on adolescent physical activity patterns, but rather, the influence is likely to be more complex than physical activity behavior modeling perceived by the adolescent. Further research in this field is warranted in order to better understand potential contributors to successful physical activity promotion interventions amongst young adolescents.

For further information, please contact Jerome Rachele at j.rachele@qut.edu.au

	beta	standard error	t-statistic	p-value
Starting Model				
Parent physical activity (IPAQ)	.096	.130	.861	.392
Liking of Games and sport (CAPA)	.156	958.149	.834	.407
Fun of physical exertion (CAPA)	-.095	778.919	-.708	.481
Liking of exercise (CAPA)	.276	1122.678	1.446	.152
Importance of Exercise (CAPA)	-.004	1022.901	-.032	.974
Peer acceptance (CAPA)	.036	1157.014	.213	.832
Perceived competence (Harter)	.137	1128.801	.748	.456
Self-esteem (Rosenberg)	-.166	982.722	-1.243	.217
Perceptions of parental role modelling	.004	973.765	.031	.976
Perceptions of parental encouragement	-.041	2022.439	-.159	.874
Parental influence	-.140	2287.182	-.473	.637
Final Model				
Liking of Games and sport	.308	510.283	3.091	.003

Table 1. Backwards stepwise regression of factors predicting adolescent physical activity