Executive Functioning and Explicit Physical Activity Self-Regulation Associated with the Activity Choice Index

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ACI is positively associated with self-efficacy, self-image, cognitive control, and selfregulation of conscious physically activity choices

INTRODUCTION

Individuals encounter daily opportunities to make subconscious decisions that could be responded in a more or less active way.

Physical activity assessment's traditionally fail to account for the degree to which these decisions are influenced.

The Activity Choice Index (ACI) is a relatively new 6-item questionnaire that has been validated for this purpose however, little is known about the extent to which choices are associated with executive functioning (EF) and explicit (physical activity self-beliefs) vs. implicit motives.

METHODS

N = 133 (79% Female), 79% Caucasian, 68% higher education. Measurements:

- Activity Choice Index (ACI)
- Godin Leisure-Time Exercise Questionnaire (GLTEQ)
- Fitbit
- Physical Activity Self-Regulation Questionnaire (PASRQ)
- Lifestyle Self-Efficacy (LSE)
- Walking Distance Self-Efficacy (WDSE)
- Exercise Self-Efficacy (ESSE)
- Exercise Self-Schema Questionnaire (ESSQ)
- 1-item Future Self-Identity
- Single Category Implicit Association Test (SCIAT)
- Dual-Task Performance

PROCEDURE

Participants were randomized to either a cognitive-motor training or attention control video-watching intervention, each involving a 20-hr supervised program. Testing was completed at baseline and follow-up (Month 1) appointments

RESULTS

Bivariate correlations between ACI composite and behavioral and psychological outcomes



ACI

Follow-up (n=116)

2.94(0.86)

							GLIEQ	.24*	.21*
Bivariate correlations between nonsedentary activities (ACI items) and behavioral and psychological outcomes at baseline.							Fitbit	.28*	.25*
	Stairs >	Walking >	Park further	Taking Work		Handwork >	PASRQ	.46*	.40*
	escalator	transportati on	Away	Breaks	Stand > Sit	Electric	LPASE	.36*	.28*
GLTEQ	.14	.30*	.05	.25*	03	.12	SEW-DIST	.29*	.26*
Fitbit	.34*	.37*	.11	.08	.07	01	EXSE	.21*	.27*
PASRQ	.13	.32*	.20*	.32*	.24*	.41*	Future self- identity	.39*	.31*
EXSE	.16	.06	.20*	.11	.28*	.26*	SCIAT	.03	.10
BARSE	11	02	.13	.01	.23*	.17	DISCUSSION This study adds to the scientific evidence supporting the ACI's construct validity. Together, these findings offer support for the theorized role of EF conscious activity choices.		
LPASE	.14	.19*	.18	.16	.27*	.20*			
SEW-DIST	.08	.26*	.11	.20*	.18	.21*			
Exercise Schematic	.13	.23*	.10	.27*	.16	.28*			
Future Self- identity	.05	.25*	.22*	.14	.29*	.31*	ACKNOWLEDGEMENTS This investigation was supported by the National Heart, Lung, and		
Dual-Task	10	06	22*	- 14	15	05			



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