



Elisa Kaaja (1)
 elisa.kaaja@helsinki.fi
 Sini Hynynen (1)
 Hanna Laine (1)
 Piivikki Absetz (2)
 Vera Araujo-Soares (3)
 Falko F Sniehotta (3)
 Ari Haukkala (1)
 Tommi Vasankari (4)
 Antti Uutela (5)
 Katja Borodulin (5)
 Taru Lintunen (6)
 Nelli Hankonen (1,2)

LET'S MOVE IT: Design of a Multi-Level School-Based Intervention to Increase Physical Activity and Decrease Sedentary Behaviour

1) University of Helsinki, Finland 2) University of Tampere, Finland 3) Newcastle University, United Kingdom 4) UKK-institute, Finland 5) National Institute for Health and Welfare, Finland 6) University of Jyväskylä, Finland

Characteristics of effective school-based interventions: Evidence

- A systematic literature review identified 10 (cluster) randomised controlled trials of school-based interventions to increase PA and decrease SB among 15-19-year-olds
- Seven studies reported significant albeit small and short-term increases in PA
- Effective interventions included more Behaviour Change Techniques (BCTs), and specifically focused on:
 - Information about social and environmental consequences
 - Graded tasks
 - Self-monitoring of behaviour
 - Feedback on behaviour
 - Problem solving
 - Goal setting (behavior)
 - Action planning
 - Social support (unspecified)

Hynynen, van Stralen, Sniehotta, Araujo-Soares, Hardeman, Chinapaw, Vasankari & Hankonen. (under review). A systematic review of school-based interventions targeting physical activity and sedentary behavior among older adolescents

Intervention feasibility

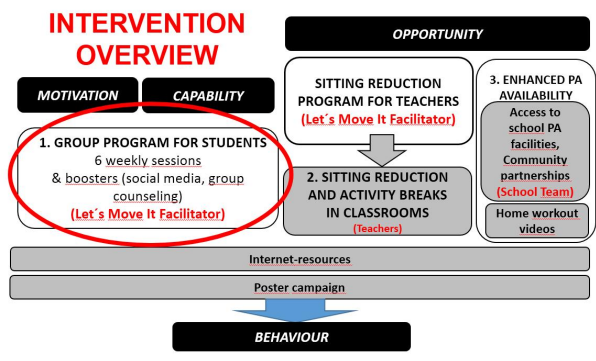
- A randomized feasibility study indicated high acceptability of intervention procedures and features among students (N=43) and teachers (N=16), with an average satisfaction rate of 4.8 (SD=0.4, scale 1-5).
- Intervention content was optimized based on observations from the feasibility trial.

Hankonen, et al. Randomized controlled feasibility study of a school-based physical activity intervention among older adolescents. In preparation.

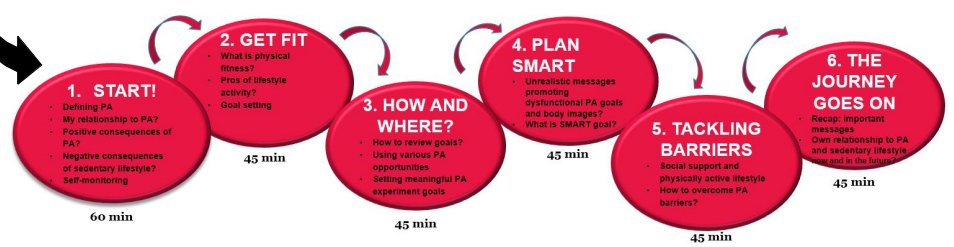
SUMMARY

- Lack of physical activity (PA) and high levels of sedentary behaviour (SB) among older adolescents call for effective interventions
- High-quality school-based intervention studies are sparse among older adolescents, and specifically among those with lower education (i.e. students in vocational colleges)
- The Let's Move It Intervention was developed based on evidence and behavioural science theories, using a systematic approach and frameworks (Intervention Mapping, Behaviour Change Wheel) with stakeholder input and target group involvement
- Based on findings from a feasibility study, the optimized complex intervention targeting Capability, Opportunity and Motivation to Behaviors (COM-B model, Michie et al., 2011), in this case, moderate-to-vigorous PA and sedentary behaviours, will be tested as a cluster randomised trial.

Theory-base for intervention development:
 - Self-Determination Theory
 - Group Motivational Interviewing
 - Theory of Planned Behaviour
 - Self-regulation Theories
 - Habit Theory



LET'S MOVE IT GROUP PROGRAM FOR STUDENTS: SESSION OVERVIEW



The Key Behaviour Change Techniques	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6
1 Self-monitoring (behaviour)	x	x	x	x	x	x
2 Goal setting (behaviour)	x	x	x	x	x	x
3 Action planning	x	x	x	x	x	x
4 Graded tasks	x	x	x	x	x	x
5 Behavioral practice		x	x	x	x	
6 Behavioral experiments	x	x				
7 Information on how to perform a behaviour		x	x			
8 Demonstration of behaviour		x	x			
9 Information about health consequences	x	x	x			x
10 Salience of consequences	x	x				x
11 Information about emotional consequences	x	x	x	x	x	x
12 Information about social and environmental consequences	x	x				
13 Monitoring of emotional consequences	x	x	x	x	x	
14 Information about antecedents of behavior			x	x	x	x
15 Identity associated with changed behavior	x					x
17 Social support		x	x	x	x	
18 Restructuring the physical environment		x	x	x	x	
19 Analysis of relapse situations		x	x	x	x	x
20 Problem solving (i.e., coping planning)		x	x	x	x	x
21 Goal review (behavior)		x	x	x	x	x
22 Feedback on behavior		x	x	x	x	x
23 Providing rationale / structure	x	x	x	x	x	x

The table presents the most central BCTs only

INTERACTION PRINCIPLES

- Show empathy for students
- Ask open questions
- Roll with students' resistance
- Evoke change talk
- Show interest in students' experience and perspectives
- Provide students with options and choices
- Provide students with structure and agenda
- Use reflective listening
- Validate students' concerns
- Provide positive feedback

Intervention effectiveness

- Let's Move It is the first intervention targeted at adolescents specifically in the lower educational track, to be evaluated in a randomized design.
- In an ongoing cluster-randomized intervention study, the effectiveness of the program is currently being tested.
- PA and sedentary time is measured objectively with accelerometers, worn over 7-day period at baseline, post-intervention and at 14 months.

Acknowledgments

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