



Implementation and follow-up of a project aiming to promote physical activity in overweight adolescents



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Introduction:

- Promoting PA and adherence to exercise programs in overweight adolescents is challenging (Alberga et al., 2013)
- According to the Self-determination Theory (Deci et al., 2000 ; Deforche et al., 2011), programs of PA promotion should satisfy the need for:
 - **Autonomy** ➤ **Competence** ➤ **Relatedness**
- To maximize motivation: 5 PAMIA principles (Cloes, 2017)

Purpose:

- To implement a project aiming to promote PA in overweight adolescents
- To evaluate participants' motivation and opinion about this project
- To assess its impact on participants' lifestyle and physical measures

Methods:

Intervention:

- 2 series of 8 collective PA sessions
 - Aerobic and resistance training + educational content
 - 2hrs, indoor (hospital sports room)
 - PAMIA principles
- ➔ Team challenge: "24H Vélo Télévie" (Belgian charity sport event)

Subjects:

- 14 overweight or obese adolescents (aged 12 to 18 years)
- 8 girls, 6 boys

Data collection:

- Pre- and post-questionnaires
- Pre- and post-interviews
- Session perception questionnaires (participants and instructor)
- Pre- and post-tests (aerobic capacity and body composition)

TAP TO GO
BACK TO KIOSK
MENU

Conclusions:

Interesting project:

- ✓ High motivation score
- ✓ Good attendance rate
 - ➔ Intervention seems to enhance motivation and participation
- ✓ Impact on aerobic capacity and knowledge
 - But knowledge score stays low
- PA level: questionnaires (X) vs. interviews (V)

Recommendations:

- Higher frequency
- More variety (activities, outdoor, etc.)
- Exercises they can do by themselves
- Monitor PA level and increase promotion of PA beyond training sessions
- Future question: how to maximize effects on PA level and impact on long term lifestyle?

Results:

Participation:

- Attendance rate of participants (%): $72,4 \pm 22,6$
- Average score of participants' motivation, for each session (/5):
 - From participants' point of view: $4,18 \pm 0,33$
 - From instructor's point of view: $3,64 \pm 0,63$
- All adolescents participated in the final team challenge

Impact:

Table 1: Cycle ergometer test, from T0 to T1

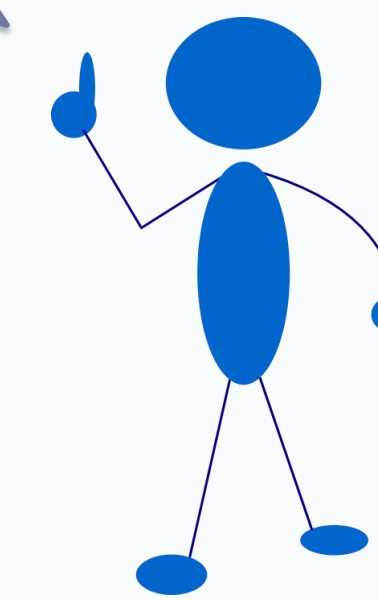
(n=12)	Max level (Watts)	
	T0	T1
Median	150	150
(P25-P75)	(100-162,5)	(150-212,5)
p-value	$p < 0,004$	

Table 2: Knowledge of PA recommendations, from T0 to T1

(n=14)	Score (/8)	
	T0	T1
Median	1	3,5
(P25-P75)	(0-2,75)	(2,25-4)
p-value	$p < 0,004$	

But...

- ✓ « The project helped me to increase my PA level » (9/14)
- ✓ « The project could help young people to become more active » (13/14)



- ✓ Improvement in aerobic capacity and knowledge of PA recommendations
- X No impact on PA level (questionnaire) and body composition

Project evaluation:

SWOT

Ask detailed references to the first author:
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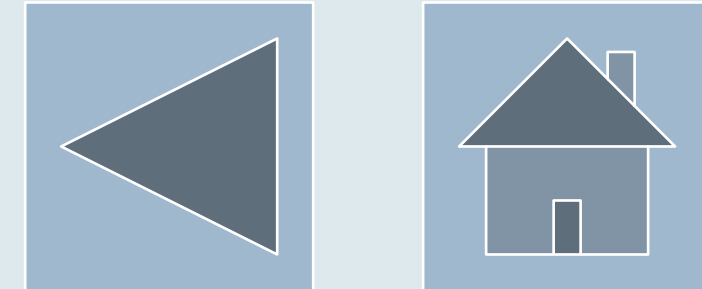


Table 3: Participants' opinion on the overall project. A SWOT analysis.

Table 4: Project contribution to participants' life. A SWOT analysis.

SWOT analysis : Participants' opinion on the overall project (n=14)	
<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Good atmosphere (n=9) • Social links (n=8) • Moving and having fun (n=7) • Fitness improvement (n=5) • New learnings (n=4) • Good equipment (n=2) • Increasing PA level (n=2) 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • No weakness (n=12) • Too long sessions (n=1) • Too much cycling (n=1)
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • No idea of improvement (n=9) • More than 1 session a week (n=3) • More variety (activities, games,...) (n=3) • Create an « overweight club » (n=1) • 2x1 hour vs. 1x2 hours 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • No threat (n=11) • Less equipment (n=3) • Less funding (n=2) • Less participants (n=2) • No more sports room (n=1) • No more instructor (n=1)

SWOT analysis: Project contribution to participants' life (n=14)	
<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • New friends (n=6) • Better fitness (n=5) • Learned to enjoy PA (n=4) • Learned to surpass themselves (n=3) • Adopted new habits (n=2) • Better mental well-being (n=2) • Learned new things (n=1) 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • No weakness (n=8) • Not able to do other activities (n=1) • Exercise hypoglycemia (n=1) • Forced to weigh himself (n=1) • Forced to get up early for the final event (n=1)
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Make new exercises they've learned by themselves (n=7) • Continue regular AP (n=4) • Increase their PA level even more (n=3) • No idea (n=3) • Use the training book (n=2) • Use active transports (n=1) 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • No threat (n=7) • To much school work (n=4) • Laziness (n=2) • Injuries (n=1) • Other activities (n=1)