

**Specific caring for overweight students in physical education :
Implementation of teaching strategies identified during an interdisciplinary meeting**

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Introduction

Overweight and obesity

- An escalating global epidemic
 - "Globesity"

Key facts

- Worldwide obesity has nearly doubled since 1980.
- In 2008, more than 1.4 billion adults, 20 and older, were overweight. Of these over 200 million men and nearly 300 million women were obese.
- 35% of adults aged 20 and over were overweight in 2008, and 11% were obese.
- 65% of the world's population live in countries where overweight and obesity kills more people than underweight.
- More than 40 million children under the age of five were overweight in 2011.
- Obesity is preventable.

WHO (2013)

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Overweight and obesity

- The role of school is emphasized
 - All children
 - Much time
 - Professional structure
- School-based obesity prevention strategies
 - Curriculum
 - Parent/Family
 - School environment/Policy



- **Nutrition and PA classroom-based activities**
- **Seminars on nutrition and PA**
- **Required or modified PE**
- **Cooking classes**
- ...

Fridlund Dunton et al. (2011)

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Overweight and obesity

- What about PE?
 - PE has a public relations problem in regard to how obese students are treated (Irwin et al., 2003)
 - PE is a solution to fight against obesity crisis (Tappe & Burgeson, 2004)
 - Some PE teachers develop an 'antifat' attitude (Greenleaf & Weiller, 2005)
 - PE trainees consider that they are ready (Martinez et al, 2010)
 - PE teachers can create environments of inclusion (Rukavina et al., 2010; Li & Rukavina, 2012)

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Overweight and obesity

- What about PE?
 - Overweight and obese youth still represent a major concern for PE teachers

“In the educational programs that I attended to, nobody proposed information about how to manage obesity. On the Internet I didn’t find examples of exercises for obese students” (T8 ; lines 159-162).

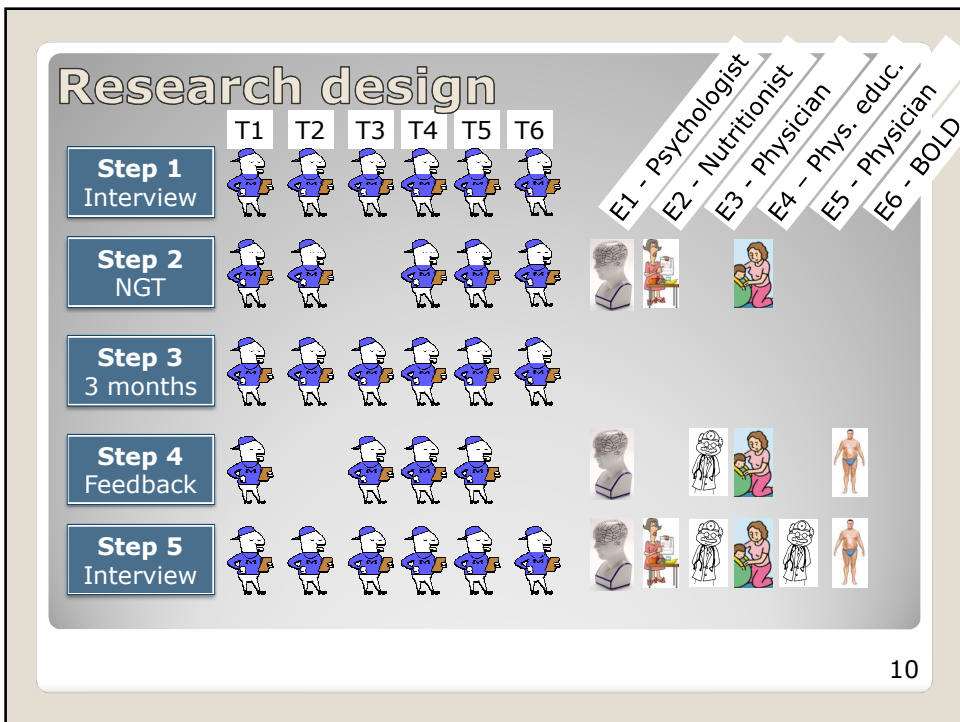
“I am not able to explain that problem to one class. It’d be better with more competent people” (T2 ; lines 59-63)



Aims of the study

As a part of a bigger study:

- To develop a collaboration between obesity experts and PE teachers
- To provide guidelines to a group of PE teachers
- To share their experiences in the instructional strategies' implementation





Results and discussions

Problems' identification

15 categories of problems	120
Lack of knowledge about somatic aspects of the youth	111
Self image and look of others	93
Stigmatization of the difference when individualizing	84
Low motor development	
Limits of the PE teacher prerogatives	
Fear of pain	64
Youths' lack of structuring	
Over protection by the parents	
Teachers insufficient knowledge about overweight's origin	60.5
Information and guidance to provide	
Avoidance behaviors about physical activity	
Poor representations about PE	46
Nutrition policy of the school	
Requirement of express effects	
Medical certificate	17.5
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Youth dependent aspects

Teacher dependent aspects

Family & society dependent aspects

School dependent aspects

Strategies' identification

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Limits of the PE teacher prerogatives	64
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Over protection by the parents	60.5
Teachers insufficient knowledge about overweight's origin	60.5
Information and guidance to provide	51
Avoidance behaviors about physical activity	49
Poor representations about PE	46
Nutrition policy of the school	41.5
Requirement of express effects	35
Medical certificate	17.5

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Strategies' implementation

- 3 aspects

- Opinions about the teachers' diaries
- Comments about the experiment
- Instructional strategies

- Very positive feedback from the teachers (as much with experts as with colleagues)
- Experts changed their representations about PE

- Teachers' agreement on the instructions' clarity
- Question about the real need of this tool (T3, T4, T5)
- Lack of time (T2, T4, T5)

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6 kinds of actions

- Adapted endurance activities
- Guidance of the adolescents to out-of-school sports activities
- Contact with physicians and medical certificates
- Contact with the psycho-medico-social centers of the schools
- Nutrition aspects
- Activities that enhance the student

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6 kinds of actions

- **Adapted endurance activities**
 - Guidance of the adolescents to out-of-school sports activities
 - Contact with physicians and medical certificates
 - Contact with the psycho-medico-social centers of the schools
 - Nutrition aspects
 - Activities that enhance the student
- .T1: A ball game + heart rate monitor + roller skating + enhancing improvements
 .T5: Heart rate monitor + talk with one mother
 .T6: Replacing running by Tae Bo
 .T4: Modification of assessment in running (→ continuous time)

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6 kinds of actions

- Adapted endurance activities
- **Guidance of the adolescents to out-of-school sports activities**
- **Contact with physicians and medical certificates**
- **Contact with the psycho-medico-social centers of the schools**
 - Orientation to volleyball (T1), swimming (P5), fitness center (P6)
 - That strategy is supported by the experts (E1, E3, E4, E6) who emphasized such PE teacher's role
- Nutrition aspects
- Activities that enhance the student

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6 kinds of actions

- Adapted endurance activities
- Guidance of the adolescents to out-of-school sports activities
- **Contact with physicians and medical certificates**
- **Contact with the psycho-medico-social centers of the schools**
 - Contact with a cardiologist (P5)
 - Trial to draw attention of the school authorities (P1, P6)
 - Contact with the school health service (P2, P3)
- Nutrition aspects
- Activities that enhance the student

6 kinds of actions

- Adapted endurance activities
- Guidance of the adaptation of school sports activities
- Contact with physiotherapists and certificates
- Contact with the parents and centers of the school
- **Nutrition aspects**
- Activities that enhance the student

-School authorities have been informed and decided to organize a special breakfast (P5)
 -P5 requested also the collaboration of one colleague
 -P3 (also nutritionist) proposed an activity to interested classes
 -P4 proposed a personal discussion about nutrition
 -P2 developed a collaboration with the geography teacher

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6 kinds of actions

- Adapted endurance activities
- Guidance of the adaptation of school sports activities to out-of-school
- Contact with physiotherapists and certificates
- Contact with the parents and centers of the school
- **Nutrition aspects**
- **Activities that enhance the student**

-P3 implemented an oriental dance unit
 -P6 answered to a students' request and proposed varied workouts underlining the muscles involved in the exercises
 -P2 bought big size harnesses (climbing) and praised a girl who achieved a route

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Discussion

Categories of instructional strategies

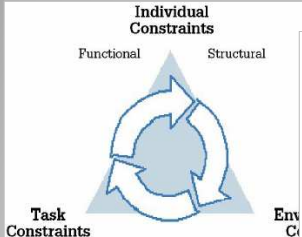
Search for additional information (credibility and novelty)	✓
Developing collaborations with colleagues/school management	✓
Contact with the health sector	✓
Offering alternatives activities/assessment (to running!)	✓
Technical support (HRM, adapted equipment ...)	✓
Providing specific knowledge (PE objectives, health aspects ...)	✓
Developing students' confidence (FB, progress)	✓
Enhancing the student (encouragement, praise)	✓
Orientation to extra-school physical activity and sport	✓

Pre-interactive decisions
 → planning

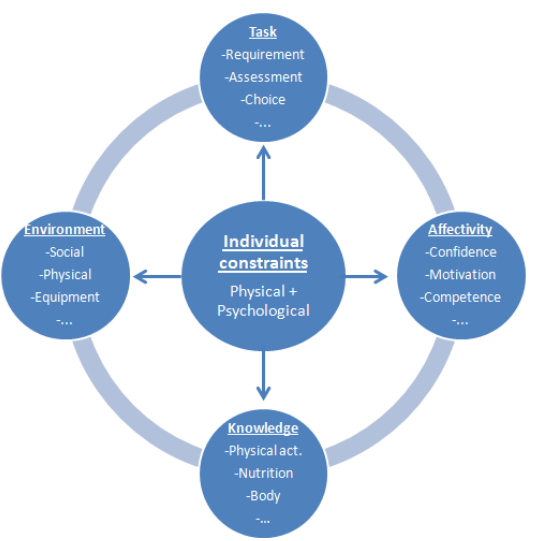
Interactive decisions
 → opportunities

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Discussion



Rukavina et al. (2010)





Conclusions

Suggestions

- PE teachers need examples of good practices that will help them to implement instructional strategies dealing with overweight students
- It helps them to develop their own approaches as effective practice 'reflectioners'



Suggestions

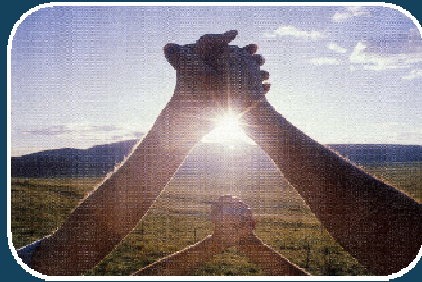
- Preservice and inservice PETE should emphasize teaching strategies focusing on special needs students (not only overweight youths)
- Interactions with experts incites PE teachers to implement original strategies and should be promoted



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<http://hdl.handle.net/2268/151541>



Many thanks for your interest

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