

Effectiveness of an Overweight and Obesity Prevention Program in Preschool Age Children

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BACKGROUND:

In developed countries 10 % of preschool children are overweight and 60 % of obese children remain obese adults, increasing the possibility of premature death and disability in the future (IOTF , 2005). Sedentary childhood lifestyle with lower physical activity and a fast food and processed foods dietary and the low socioeconomic status of families increase the risk of childhood obesity (Lobstein T. et al , IOTF , 2005; Larse L. et al , 2006; Rama P., J. Breda ; Rita A. 2010) .

Portugal is one of the five European countries with the highest prevalence of childhood obesity where 19 % of preschool age children are overweight and 30% of school age children are overweight and 11 % are obese (COSI , 2008; Plataforma Contra a Obesidade, 2010) . Actually, 13,9% of the children are obese and 31,6% are overweight (COSI, 2015). Preschool children have already developed health behaviors, however this age is a privileged period and an opportunity to promote healthy behaviors through the development of new skills and competences (Lucas L. ; Freucht A. , 2010; Pender N., 2012).

The promotion of healthy eating and physical activity in preschool is an opportunity to contribute to the reduction of overweight and obesity in childhood. Several systematic and simple educational and behavioral multidisciplinary interventions are described as an effective approach to prevent the overweight and obesity in childhood (Mellin , A., Lenner R.A. , 2008; Wyatt , K. M. et al , 2011; Greening , L. et al , 2011; Tucker , S. et al, 2011).

Keywords: health promotion; pre-school children; obesity; overweight; school

RESEARCH QUESTION:

What is the effectiveness of an overweight and obesity prevention school-based program in preschool age children?

METHODOLOGY (Complex Interventions Medical Research Council (2008) / CReDECI (2012))

Developing and evaluating a complex intervention to evaluate the effectiveness of an overweight and obesity prevention school-based program in preschool age children.

Abstract of the research project presented at International Meeting of Doctoral Students in Nursing of Universidade de Lisboa, May 2016.

Phase I: DEVELOPMENT

1. **Identifying the evidence base** - systematic review of literature
2. **Developing theory** – Health Promotion Model (Nola Pender); Social Learning Theory (Albert Bandura)
3. **Modelling process and outcomes**
 - Development and training of the intervention team (pre-school teachers; school nurses, nursing student)
 - Identification of the intervention's elements of an overweight and obesity prevention school-based program in preschool age children
 - Evaluation of the effectiveness of an overweight and obesity prevention school-based program in preschool age children

Phase 2: FEASIBILITY AND PILOTING

STUDY 1 (cross sectional study) PRESCHOOL AGED CHILDREN AND FAMILIES EATING AND PHYSICAL ACTIVITY BEHAVIORS, AND NUTRITIONAL STATUS

AIMS: Identify pre-school age children and families eating and physical activity behaviors - questionnaire

Evaluate pre-school age children anthropometric measures (body mass index, body mass index and abdominal fat measured)

STUDY 2 (focus group): OVERWEIGHT AND OBESITY PREVENTION SCHOOL-BASED PROGRAM IN PRESCHOOL AGED CHILDREN VIABILITY

AIMS: Identify the acceptance and feasibility of the school-based program among the preschool age children and families

STUDY 3 (quasi-experimental pilot study): OVERWEIGHT AND OBESITY PREVENTION SCHOOL-BASED PROGRAM IN PRESCHOOL AGE CHILDREN

Intervention school - overweight and obesity prevention school-based program in preschool age children

Control school – Education and Science Ministry and School Health National Board standard program EANS Winter Summit 2016 Effectiveness of an overweight and obesity prevention program in preschool age children

ETHICAL PROCEDURES: Lisbon Regional Health Authority Health Ethics Committee (approved); Ministry of Education and Science (approved); Pre-School Pedagogic Council (approved); National Data Protection (approved); Families Consent (approved).

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