

Methods: A cross-sectional study was conducted on five municipalities (Viana do Castelo, Fundão, Oeiras, Seixal and Montijo), which included 3173 children (6-9 years old), attending the universe of public elementary schools (n=167). This Project embodies three stages (from 2008 to 2011): assessment of the nutritional status of children according to the classification criteria of the Centers for Disease Control and Prevention (CDC, 2000) for body mass index (BMI), relating with socioeconomic, demographics and environmental factors with health, collected by a family questionnaire. The children BMI and school characteristics were collected by Municipality examiners/field workers, submitted to anthropometric training sessions and information of children's nutritional status. A specific intervention in health promotion for children was implemented at school level through a set of training activities involving teachers, school assistants and cooks, based on healthy lifestyle and healthy food habits, specially fruits and vegetables, also physical activity promotion at school and family environment. The impact of the program has been assessed during the scholar year (2010/2011) through monitoring and evaluating the dimensions firstly selected.

Results: During the first year of the project, 150 schools participated and 3173 children were assessed. 50.6% were female and the mean age was 7.5 years (±0.8). The prevalence of childhood overweight was 32.1% (BMI≥P85), of which 14.3% were obese (BMI≥P95). Family, as the primary children source of social learning, habits and behaviors' influence, was associated with children's food choices and physical activity. According to this dimension the data showed that small family size was associated with higher children's BMI (OR=1.6; 95%CI: 1.1-2.3). It was also observed that having a lower level of education, a lower socioprofessional status and an household income of less than €1500 were risk factors for the development of childhood obesity, statistically significant (p <0.05). Children short sleep duration (≤8 hours/day) showed also an association with childhood obesity (OR=1.5; 95%CI: 1.1-2.1). In relation to child and maternal variables, 90.1% of mothers breastfed their children. Children with high birth weight and that were not breastfed showed an association with overweight: (OR=2.5; 95%CI: 1.3-4.6) (OR=1.6; 95%CI: 1.1-2.2) respectively. The duration of breastfeeding, maternal weight, gestational age and maternal age did not show to be a risk factor for childhood obesity. Related to children food frequency we observed that most children (96.9%) too breakfast every day; a large part of the children ate lunch at school (84.1%) and 15.8% ate lunch at home. The results showed that children who had a daily consumption of sweets showed higher risk in developing obesity (OR=2.3; 95%CI: 1.2-4.3) and the opposite was observed for those who include more than once a day a vegetable soup on their daily diet, representing a protective factor for childhood obesity (OR=0.6; 95%CI: 0.3-1.0).

Conclusion: The results confirm the trends in children's lifestyle that have been found in others Portuguese studies. Environmental factors such as family's and demographics' dimension should be considered as an important contributing factors for childhood obesity so, to better understand the epidemiology of these factors, future research should attempt to quantify and elucidate this on more precise way. The MUNSI showed to be an effective approach as a community-based programme to a better understanding of childhood obesity factors.

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PROJECT POZ - TWO BEST PRACTICES COMMUNITY BASED PROGRAMMES IN PORTUGAL - MUNSI & POZ

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Introduction: Childhood Obesity represents one of the most serious public health challenges, as it reached epidemic levels in several countries around the world. The prevention and treatment of this disease should be a top priority. The interventions used within childhood obesity approach should be community and family based and should essentially lie upon behaviour modification regarding diet and physical activity. The main purpose of the Project Obesity Zero (POZ) is to tackle childhood obesity at municipality level through a set of activities (Healthy cooking programme and a nutritional guidance programme) targeted at low income families with overweight children.

Methods: A Quasi-experimental multicentric study, developed in 2009 in five portuguese municipalities from the five regions of Portugal: Melgaço - North, Mealhada- Centre, Cascais - Great Lisbon, Beja - Alentejo and Silves- Algarve articulated with Healthcare centres and local governments. The program offered, to children and their families, a four stages intervention: a) 4 sessions of Individual Nutrition Counselling, b) a Healthy Cooking workshop, c) 2 children's group sessions (nutrition and physical activity) and d) a Parents/families Group counselling. Outcomes of nutritional status were assessed at baseline and at 6 months after.

Results: Of the 293 children participants in the intervention (47,5% boys and 52,9% girls; mean age 8,6 years; mean percentile 93,6), 220 (75%) have completed the program. Mean percentile decreased by 2,369 (P<0,05).

Conclusions: These data suggest that interventions at local level can have significant effects on childhood overweight prevalence. This knowledge may identify additional potential effective interventions in order to reverse the obesity trends in Portuguese children, one of the highest in Europe.

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SCHOOL AND LOCAL COMMUNITY - POSSIBILITIES FOR PROMOTING HEALTH

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Background: Many policy documents have been written on obesity control and prevention, and the number of papers published in the area has increased immensely over the last ten years. However, policy documents often lack active implementation, budget, responsibility and evaluation and the number of high quality intervention papers is still low. At the same time, there is a gap in knowledge among health care staff and teachers, the most important players according to policy documents. Some evidence of effectiveness have been presented and some practical tools as well as promising and innovative programmes for schools and local communities have been developed whereof some will be highlighted in this presentation.

Methods: This talk builds on a policy inventory and a gathering of current and relevant information, including medline listed reviews on intervention effectiveness.

Results: The role of the local community and of the school is emphasized in several policy papers. The policy documents largely fail to include the need for training of relevant staff and for a backup system of experts. Building a proper intervention programme, including design of evaluation tools and taking into account equity aspects as well as an ethical approach to the problem, requires skilled staff and a broad based joint understanding of the problem and possible solutions. Several reviews still point at the lack of high quality papers published in the area of obesity management. A couple of promising projects within the EU were identified and two tools for self assessment of service quality were identified. Among the success factors we could find long term project with a broad involvement of stakeholders, the combination of diet and physical activity efforts, extracurricular activities, environmental change and sustainability as important parts, GADGETS seem to work.

Conclusions: Keep up the good work, make sure you evaluate your project properly and to publish your result!