



Demographic variables and childhood obesity community-based program in Portugal

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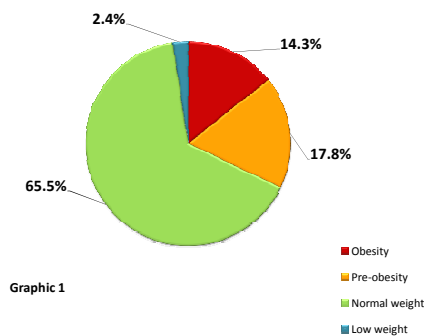
BACKGROUND: It is well known that obesity is one of the most Public Health's concerns especially among children¹. The prevalence of overweight and obesity have been increasing consistently throughout the European Union (EU), affecting everyday a higher number of children and adolescents. Recent data reports that childhood obesity in Portugal increased in the last years, representing nowadays 32.2% of overweight and 14.6% of obesity². Family, as the primary children source of social learning, habits and behaviors' influence and exposure have shown a basic determinant to food and physical activity children' choices^{3,4,5}. The role of family and parental factors in childhood obesity suggests that single-parent, no siblings and small family size are associated with larger increases in Body Mass Index (BMI)^{3,4,6}. Family provides social and interpersonal support that is instrumental in shaping and maintaining eating and physical activity behaviors, community-based health programmes focus also on family educational policies and strategies have been developed in some European Countries, showing relevant impact on health patterns and a decrease on childhood obesity prevalence's. Based on the recognized success of these programmes we developed the community-based programme defined as Munki in order to identify the main factors behind the Portuguese nutritional children status and create a healthy community life-style.

METHODS: This study is framed from a longitudinal municipal project (MUNSI), which included 3173 children (6-9 years old) from 167 public schools conducted on five municipalities (Viana do Castelo, Fundão, Oeiras, Seixal and Montijo). Childhood nutritional status was assessed by anthropometric parameters (weight and height) considering the Centers for Disease and Control Prevention (CDC, 2000) growthcharts criteria percentiles of BMI. Demographic condition were collected by a self-response family' questionnaire. Subdivision by residence area were assessed by Territorial Institute of Statistics criteria into Predominantly Urban Areas (APU), Moderately Urban Areas (AMU) and Predominantly Rural Areas (APR) (INE, 2004). The Odds Ratio was calculated with a 95% Confidence Intervals.



RESULTS

The prevalence of overweight (pre-obesity and obesity) (BMI \geq P85) was 32.1%, where 14.3% were obese (BMI \geq P95) (graphic 1), distributed equally throughout boys and girls (14.4% and 14.1%, respectively). Children who lived in urban areas showed higher obesity prevalence (14.4%) compared with those residing in rural areas (13.3%) associated also with higher odds ratio (OR=1.12; CI:0.8-1.6) however with no statistic significance. According to family household, small families size showed higher obesity prevalence (17.1%) with a OR=1.6 (CI:1.1-2.3) statistically significant (p<0.05), compared to families who had more elements (table 1).



	Total (n)	Obesity		OR (95% CI)
		n	%	
Urban areas	1882	317	14.4	1.12 (0.8-1.6)
Family size (3 elements)	572	98	17.1	1.6 (1.1-2.3)*

Table 1
n=3173

CONCLUSION

Environmental factors such the urban areas and family household should be considered as important contributing factors for childhood obesity. To better understand the epidemiology of these factors future research should attempt to quantify and elucidate them more precisely. The Munki as a community-based programme is an effective approach on the childhood community leading to a better understanding of the obesity factors. These knowledge may identify additional potential effective interventions at local level in order to reverse the obesity trends in Portuguese children and promote a future healthy life style.

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