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CHARACTERIZATION OF FOOD ENVIRONMENTS AROUND HIGH SCHOOLS: WHERE DO ADOLESCENTS GO?

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Abstract Text: Introduction: The omnipresence and easy availability of food are major issues which do not spare school environment. Methods: Fourth grade high school adolescents (n=173) from 5 neighbourhoods of Quc City were recruited. Through an Internet survey, all places (selling food or not) frequented by adolescents around their school, on foot and by bicycle, were listed. The food establishments located in a 1-km area around each school were identified. A classification grid was elaborated to document and to classify the quality of the food offer in three categories (low, moderate and high). This new tool provides a global nutritional quality score (0 to 100) as well as subscores for beverages, appetizers, main course, side dishes and desserts. Results: Preliminary results of the characterization showed that the quality of the food offer is similar among the five school environments. Food establishments classified as high food quality represent around 10% for three of the five schools. Nearly 45% of the places frequented by adolescents sell food. For 75% of these places, the nutritional quality of the food offer went from low to moderate. About 22% of the other frequented places offer food as well, which exposes adolescents to more unhealthy food choices. Conclusion: A majority of the places frequented by the adolescents located near the schools were characterized by a low to moderate nutritional offer, which might unfavourably influence their food habits.
Conflict of Interest: None
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DESIGN AND BASELINE CHARACTERISTICS OF THE LIVE FOR LIFE EMPLOYEE WEIGHT MANAGEMENT STUDY

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Abstract Text: **Introduction**: The workplace can be an important setting for addressing obesity. An increasing number of employers offer weight management programs. The few existing evaluations of such programs have not utilized a randomized control design. We present the design and baseline data from a randomized control trial (RCT) evaluating the efficacy and cost-effectiveness of two employee weight control programs offered at Duke University.**Methods**: 500 obese (BMI >30) employees are randomized (1:1) to one of two 12-month employee weight loss/ management programs. Before randomization, baseline data are collected including measured height/weight, accelerometry, self-reported physical activity and dietary intake, and a health risk assessment including blood pressure and serum cholesterol. The impact of the two programs will be related to their net costs (program costs minus reduced health care expenditures). Participants in both intervention groups will also be compared to a non-randomized observational control group of employees.**Results**: 360 participants have been randomized between January 2011 and December 2011. At baseline, the mean age is 45.6 years, 84% were female, 41% white, and 54% black. Mean baseline BMI was 37.6. Participants consumed a mean of 2.5 servings of F/V per day. **Conclusion**: This RCT addresses the need to measure long-term outcomes of employee weight management programs in terms of 1) effectiveness over time, 2) weight reduction, 3) lifestyle changes, and 4) net costs to the employer.
Conflict of Interest: None Disclosed
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ESTIMATING THE EXTENT OF THE MORBIDLY OBESE POPULATION IN SCOTLAND

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Abstract Text: **Introduction**It has been estimated that just over 2% of the Scottish population has a body mass index (BMI) $\geq$ 40 kg/m^2 but there are no estimates that disaggregate the morbidly obese population beyond this level. The aim of our research was to derive the extent of the morbidly obese population in Scotland by BMI groupings beyond 40 kg/m^2.**Methods**Using secondary cross-sectional data and estimates of disease prevalence associated with varying levels of BMI $\geq$ 40 kg/m^2, we determined the approximate size of the population of the morbidly obese in Scotland by BMI 40 kg/m^2, 50 kg/m^2, 60 kg/m^2 to $\geq$ 70 kg/m^2.**Results**Our estimates suggest that as BMI increases from $\geq$ 40 kg/m^2 up to $\geq$ 70 kg/m^2 the proportion of the population falling into each BMI grouping falls by a factor of 10 with 2%, 0.2% 0.02% and 0.002% of the population for each 10 point BMI grouping $\geq$40 up to $\geq$70 respectively. In absolute terms, this equates to approximately 100,000; 10,000; 1000 and 100 individuals.**Conclusion**Our results concur with the literature that just over 2% of the Scottish population is morbidly obese. Extrapolating our results to values of BMI above 80kg/m^2 suggests there are currently few individuals (<100) living in Scotland with BMI at these levels. Grouping people with BMI values above 40 kg/m^2 into a single homogenous group of morbidly obese hides the extent of the morbidity and potential unmet need associated with increasing BMI levels, even within the morbidly obese category.
Conflict of Interest: None.
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FASTING CIRCULATING GLP-1 LEVEL AND INTESTINAL MICROBIOTA IN OBESE AND NORMAL WEIGHT SUBJECTS

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Abstract Text: **Introduction:** It is thought that physiologic intestinal microbiota may play a role in the development of obesity through enhancing energy utilization from digested food. We hypothesized that intestinal microbiota may influence gut hormones release. The aim of the study is to assess the composition of intestinal microbiota and its influence on fasting plasma GLP-1 level in obese and normal weight subjects.**Methods:** The study group included 50 obese subjects (group O) and 30 normal-weight subjects (group S) without concomitant diseases. Body composition was assessed by bioimpedance method. Plasma GLP-1 was measured by ELISA. Faces samples formerly diluted in physiological salt were inoculated on media in aerobic and anaerobic conditions to analyze semi-quantitatively the composition of intestinal bacterial flora.**Results:** Fasting plasma GLP-1 levels were similar in obese and normal weight subjects (1.4$\pm$0.9 *vs.*1.3$\pm$0.5 ng/mL). However, a significant negative correlation between BMI and GLP-1 levels (R=-0.23, p=0.04) was found. There was no correlation between plasma GLP-1 concentration and overall bacterial count, and the percentage of *Firmicutes* species. No influence of overall bacterial count and *Bateroides* and *Firmicutes* speciescount on GLP-1 was proved in multiple regression analysis. **Conclusion:** The composition of intestinal microbiota does not influence fasting circulating GLP-1 level.
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