The Benefits Of Implementing A Program For Information And Monitoring The Teenagers With Overweight Risk

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Abstract

Sedentary associated with an inadequate diet is one of the major causes of obesity. Through this study we are trying on one hand, to come up with a program to inform about the effects of obesity over the body and on the other hand, a program to counsel and monitor the treatment of obesity among teenagers which can be the basis for implementing a healthy lifestyle. The study took place over a period of 9 months and followed three directions: somatic evaluation, information and intervention. With parental consent, the teenagers were monitored according to the data questionnaire and BMI evolution. Between the initial and final evaluation the students carried out a conducted program of exercises (4 hours/week) on top of the physical education classes contained in the school curriculum. The study showed us that 65% of children who have followed the information-monitoring program have reached the weight appropriate to their age, 20% had decreases of BMI but had remained at different degrees of obesity. Unfortunately 15% of the children did not have a favorable evolution of the weight curve, which is explained by the absence of family support, the desire to lose weight and a varying degree of disinterest for oneself. This study has shown that the implementation of a program of information, education and monitoring the adolescents with overweight risk becomes effective if physical activity is associated with the balanced diet and counseling from specialists in nutrition and endocrinology.

Keywords: Information, education, overweight risk, physical activity, balanced diet

1. Introduction

Obesity in children and adolescents represents a risk factor for cardiovascular disease hypertension, type 2 diabetes, sleep apnea syndrome, depression and some forms of cancer (Ogden et al., 2012).

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A sedentary lifestyle associated with an inadequate diet is a major reason for obesity (Koplan et al., 2005). Therefore, the main concern of modern medicine in the treatment of this disease is the implementation of a national program through which obese persons can practice an organized physical exercise and can benefit from the counseling of a nutritionist and an endocrinologist (Fricker, 1993; Lytle, 2012). Statistics show a much higher prevalence of obesity in Romania: from 19.1% in 1961 to 24.8% in 2006 for rural areas and 26.5% to 38.7% for urban areas in 2010. The number becomes alarming if we think that cardiovascular mortality is directly proportional to the degree of obesity (Vâleanu et al., 2010).

1.1. Purpose of the study

Through this study we are trying on one hand, the implementation of a program of informing about the effects of obesity over the body and on the other hand, the initiation of a program of counseling and monitoring the obesity treatment among adolescents while establishing a healthy lifestyle. We started this type of program concerned by the fact that in Romania there are very few schools that run obesity prevention programs and screening accompanied by proper interventions and conducted by a multidisciplinary team.

2. Methods

The study was conducted over a period of 9 months (corresponding the period of the school year) and followed three directions: somatic evaluation, information and intervention during the 3 stages (initial, intermediate and final). By testing a number of 168 schoolchildren with ages between 16-18 years old, 38 adolescents had been diagnosed as having different degrees of obesity. The initial stage started at the beginning of the school year with the somatic evaluation of a number of 168 students, students in the last two years of high school. Somatic evaluation was to determine the body mass index (BMI "Body Mass Index") and body composition. American Academy of Pediatrics and the U.S. Medical Association recommends BMI as the most effective indicator for screening adolescent obesity to the population. (Ogden and others, 2012; Lent & others, 2012). Body composition determined by "measuring six skin folds" with adipose-centimeter represents a quick and inexpensive. The values of adipose tissue were correlated with data from tables Yushatz, (1988). In order to have a relatively homogeneous group study we considered an exclusion criterion any endocrine disorder or pathology that would contraindicate exercise. Thus, after the evaluation and application of these criteria we established an experimental group of a total of 38 adolescents with different degrees of obesity: 2 with grade III of obesity (5.26%), 4 with grade II of obesity (10.52%), 28 with grade I of obesity (73.68%) and 4 with a surplus of weight (10.52%). The study was conducted according to Helsinki Declaration regarding research ethical principles that involve human subjects and all participants agreed to be the subjects of this study. The intermediate stage consisted in applying a questionnaire with 10 items concerning, among other things, eating habits, physical activity level and quality of life. It was considered appropriate to develop such a questionnaire to outline a comprehensive overview of oneself.

All of the 38 students performed a controlled exercises program (4 hours/week) outside of the physical education classes included in the school curriculum (2 hours/week). The exercises were conducted under the guidance of a physical therapist which developed an attractive kinetic program, complex and adapted to functional status of each subject. Throughout the program three meetings took place, containing information about the importance of a healthy diet (focus on food intake, meal schedule and energy requirements), the role of exercise in getting an age-appropriate weight and obesity complications. These meetings have benefited from the participation of parents in increasing number. We found that parents had poor information regarding the real influence of obesity on the quality of life of children and adolescents as well as the beneficial effects of exercise practice in maintaining health applying the phrase "no day without sport". The final stage of this study allowed us to identify the students’ progress assessed by the questionnaire, measurement of body composition and BMI.

3. Results

The study proved that 65% of the teenagers that went though with the information and information-monitoring program reached a weight adequate for their age, 20% of them showed a decrease in BMI but still remained under a
certain degree of obesity. Unfortunately 15% of the subjects did not show a favorable evolution, due to the lack of support from the families, lack of desire to lose weight as well as due to a variable loss of interest concerning their own self. After realizing these facts, we recommended their parents to consider specialized counseling. Thus, at the end 24 out of the 38 subjects tested had normal values weights, 6 had shown different degrees of obesity (1 child with obesity grade III, 2 with obesity grade II and 3 with obesity grade I) and 8 presented surplus weight. Using the Yuhasz’s method in the determination of body composition allowed us both somatic effectively children’s evaluation and also, directing the kinetic program with exercises focus to reshape the body segments that had inadequate initial assessment values. Statistical analysis by T-test Bilaterally Dependent used to analyze the results of the applied questionnaire indicates significant differences between the initial and final evaluation (with a determined threshold $p < 0.05$). This allowed us to highlight that throughout the program the students' point of view has been changed; in the end they gave more importance to nutrition and healthy lifestyles. The parents' increasing interest in the informative program (from 58% in the first meeting up to 65% at the second meeting and 73.5% at the last one) was a strong factor that determined the students' reorientation towards a healthy lifestyle through the awareness that having the family involved in solving the health problems as well as body aesthetics of adolescents.

4. Conclusions

The worrying increase of obesity prevalence among children and adolescents has to be an alarm signal for the adults from different interesting branches and bring multidisciplinary specialist to manage and draw some limits to this social problem. Our research proved that implementing a program meant to inform, educate and monitor among teens that have an overweight risk becomes efficient when physical activities are associated with a balanced diet and nutrition and endocrinology specialist counseling. Practicing physical exercise outside school curriculum, the increasing participation of parents in the informative lectures, the children's interest in having a healthier lifestyle are the arguments why we wish to expand this program to other age categories.

References