Childhood Obesity: Role of Non-Pharmacological Program of Body Weight Reduction Treatment

Santiago Tavares Paes*, Renato Bianchinni
Department of Physiology, Federal University of Juiz de Fora, Brazil

Abstract

Childhood obesity is a disease of multifactorial etiology and is associated with many comorbidities. That pathophysiology condition can be the trigger for the development of cardiometabolic diseases, such as hypertension, stroke, type 2 diabetes mellitus and others. Health professionals responsible for nonpharmacological interventions should understand that adherence to a body weight reduction program is slow and requires time. Recognizing and understanding the importance of psychological aspects involved in the obesity treatment, and considering it as components of the intervention could increase efficiency of health programs. Interdisciplinary teams of health professionals for childhood obesity treatment should be composed of physicians, exercise physiologists, registered dietitians, and psychologists. Concomitantly, the consideration of psychological aspects related to the maintenance of behavior changes (i.e. physical exercise regular practice and diet), can increase the adherence of obese children and adolescents, and lead to treatment success.

INTRODUCTION

Childhood obesity is a disease of multifactorial etiology and is associated with many comorbidities. This pathophysiology condition can be the trigger for the development of cardiometabolic diseases or metabolic changes that negatively alter the human body systems operation, altering the hormonal signaling, the energy use, the inflammatory state and other body morphological aspects of obese individuals during lifetime [1,2].

Nonpharmacological treatments are able to prevent and attenuate metabolic unbalances linked to obesity, reestablishing physiological functions of the human body systems and improving cardiovascular, hormonal and inflammatory biological aspects. This occurs mainly through chronic lifestyle and behaviors changes [3].

Health habits associated with lifestyle changes (i.e. physical exerciseregular practice, and diet) can promote body weight loss [2,4]. It is necessary to understand that obesity development in childhood and adolescencecan interfere negatively on several metabolic functions [1]. This state can lead to the emergence of lethal cardiometabolic comorbidities, such as hypertension and type 2 diabetes mellitus.

These factors can epigenetic stimuli activation of genes responsible for synthesis of obesogenic proteins; fat adherence to the endothelial arterial wall; central and peripheral hormonal resistance; hyperplasia and hypertrophy of adipocytes; increase of pro inflammatory state, micro biota activity and enterocyte absorptive capacity; hypertrophic cardiomyopathy; sympathetic autonomic dysfunction, and others [5].

Thus, it is necessary for the treatment of obese individuals, both in childhood and adolescence, an interdisciplinary intervention, which health professionals are able to detect those various factors and especially promote actions aimed to improve the health of these subjects progressively and individually, so that the patient can be able to adopt the lifestyle and behavior changes [3].

Given this perspective, another important point is to understand that psychological aspects are directly associated with adoption of a new healthy behavior and lifestyle [3]. First, the pressure and social stigmas are factors that hamper the attitudes aimed to reduce body weight. The body exposure, during physical exercise at school or outdoor activities, can be embarrassing for an obese child, as well as for a teenager who wants to start practicing exercises at the gym. These situations can be the main reason for nonadherence to a physical exercise program. Therefore, it is necessary to think carefully during the design of a weight loss program for youths with obesity.

All those variables must be considered. Any intervention...
promising fast results can turn into disappointment, demotivation and depression. Understand that the weight loss process is long and depends on the interaction of social, biological and psychological variables are very important. Therefore, encourage adherence to the treatment and promote changes in lifestyle and behavior are necessary to activate the metabolic capacity of youth obese individuals, preventing them from the progression of lethal cardiometabolic disease and other comorbidities.

REFERENCES


