Physical, Familial and Emotional Predictors of Success in an Intervention Program for the Treatment of Childhood Obesity

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Abstract

Background: The prevalence of childhood obesity is one of the major public health issues arousing concern in western countries today, with Israel placed among the highest. The consequences of obesity are not only medical; the tangible issues that trouble obese children most are social and psychological. These issues exercise a unique influence on the quality of life and normal development of the child. Notwithstanding the epidemic proportions of childhood obesity, few actually seek treatment and not all who do so are successful in decreasing their weight. Recent findings show that physical and demographic characteristics of the obese child can predict success or failure in multi-disciplinary treatment programs. Since emotional factors are related to childhood obesity there is a need to focus on emotional predictors of success in these intervention programs.

Aims: First, to examine if there are familial, emotional and physical differences among different child weight groups. Second, to examine the contribution of physical, familial and emotional variables for the child's success in an intervention program for the treatment of childhood obesity.

Method: The study population included 152 children, 9-17 years old, drawn from different weight groups. Five questionnaires were distributed: personal and demographic characteristics, self-efficacy, depression, motivation and parent-child relationship. In the first part, the sample was divided into 3 weight groups: normal weight, overweight and obese and morbidly obese children. The second part of the study included only overweight and obese children; some took part in a multi-disciplinary program for reducing weight and others were in the control group, and did not get any treatment. The questionnaires were completed twice, at a 6-month interval. In addition, anthropometric measurements: weight, height, BMI, BMI%iles and Tanner Stage for maturity were conducted.

Results: Morbidly obese children have a different parent-child relationship pattern: the mother and father supervision factors and the father rejection-conflict factor were higher compared to normal weight children. Morbidly obese children are also highly motivated to lose weight, where motivation related to appearance is particularly significant. These children demonstrated higher depressive symptoms, had fewer

friends and were less physically active in their leisure time compared to their overweight and normal weight peers. In addition, the prevalence of children who breastfed as babies decreased as the weight category increased. Also, morbidly obese children have more overweight family members. In relation to the multi-disciplinary intervention program we found that children taking part succeeded in reducing their weight in comparison to the control group; overweight children being the most successful group. In addition, there were factors in the intervention group that were found to correlate with reducing weight: age, Tanner stage and onset of obesity. In the control group we found correlations between depression, motivation and physical activity at leisure time, and weight reduction. Hierarchical retrogression analysis of the factors contributing towards child weight reduction explained 45% of the variance. The major contributing factor was participation in the intervention program.

Conclusion: Taking into consideration the health-related consequences of childhood obesity, we found that morbidly obese children exhibit more social and emotional difficulties and a different child-parent relationship pattern. Success in weight reduction was based, notwithstanding familial or emotional factors, on actual participation in the multi-disciplinary intervention program. Therefore it is important to encourage obese and overweight children to take part in such program.