

A Pediatrician's Strategy for Obesity Prevention and Intervention in Latino Population

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ABSTRACT

BACKGROUND

- The population of Santa Ana, California is 80% Latino.
- Santa Ana is one of the top 10 cities in California with the highest percentage of overweight/obese children (40%).
- Depression in adolescence is associated with an increased risk for the development and persistence of obesity. However, assessment and treatment of depressive symptoms in a pediatric intervention can likely improve health related quality of life and weight management outcomes. The Pictorial Pediatric Symptoms List by Jellinek and Murphy (1999) was used to collect data on depression.

AIMS

- To evaluate PowerPlay MD-OC, a program offered at the Wellness Center in Santa Ana, CA, created and directed by a pediatrician. Outcome variables included: changes in BMI measurements and waist circumference.
- To determine whether changes in outcome variables varied by parents' reports of their child's symptoms of depression, specifically, feelings of unhappiness, hopelessness, and having less fun.
- To determine whether changes in outcome variables varied by demographic characteristics including gender and age at referral.

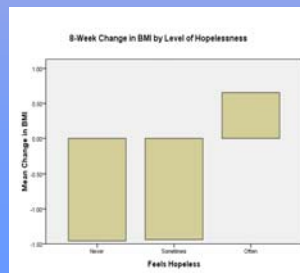
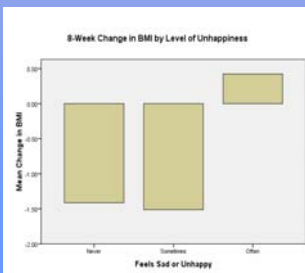
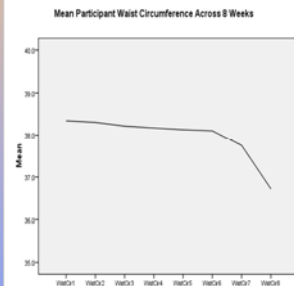
METHODS

- A total of 572 children that participated in the PowerPlayMD-OC program in 2007 and 2008 were evaluated.
- The target population included:
 - Latinos
 - Ages 5-18 years old
 - Body Mass Index (BMI) at the 95th percentile or higher
 - No previously diagnosed co-morbidities
- Participants were referred primarily by their pediatric health care providers.
- The initial portion of the program lasted 8 weeks, followed by medical supervision, maintenance and conditioning for an additional 10 months providing a medical home.
- Clinical exams were performed at baseline and on a quarterly basis throughout the rest of the year.
- PowerPlayMD-OC is a health, fitness, nutrition and behavioral program designed to help children, adolescents and their families to manage weight, overall well being and permanent lifestyle changes.
- The program includes the following components for referred youth and their families:
 - Medical evaluation and supervision
 - Nutritional counseling
 - Healthy eating and lifestyle education
 - Exercise Fitness
 - Psychosocial counseling

RESULTS: BMI

Repeated Measures ANOVA results indicated that decreases in BMI across the 8-week intervention was significant ($F = 85.85, p = .00$). Changes in BMI did not vary by gender ($p = .49$), age at referral ($p = .99$), baseline level of physical activity ($p = .33$), or having less fun ($p = .80$).

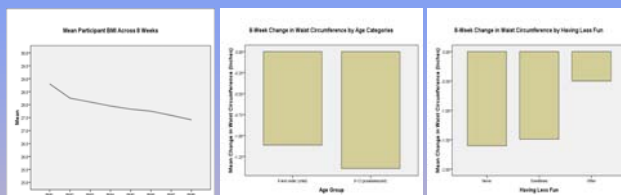
However, baseline levels of unhappiness ($F = 2.78, p = .000$) and hopelessness ($F = 2.74, p = .004$), were associated with lower reductions in BMI.



RESULTS: WAIST CIRCUMFERENCE

Repeated Measures ANOVA results indicated that decreases in waist circumference across the 8-week intervention was significant ($F = 134.67, p = .000$). Changes in waist circumference did not vary by gender ($p = .93$), unhappiness ($p = .06$) or hopelessness ($p = .48$).

However, younger age at referral ($F = 1.72, p = .001$), and having less fun ($F = 5.58, p = .000$) were associated with lower reductions in waist circumference.



CONCLUSIONS

A multi-faceted approach to obesity prevention approach that incorporates the patient, the family, and the provider is successful in reducing BMI and waist circumference among Latino overweight/obese youth. While decreases in waist circumference were steady throughout the intervention period, decreases in BMI were most apparent by the 7th and 8th week of the program.

It is a well known fact that obese children are depressed and feel hopeless about their condition. Our program demonstrates that any pediatric obesity intervention program must include behavioral evaluation and lifestyle coaching to identify the barriers to improving health and to design plans to overcome these barriers with the ultimate goal of improving the overall well-being of these youth and their families.

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