



Combating Childhood Obesity with Caregivers as Change Agents

Research is continuing on the obesity and related diseases, with developing new products, utilizing whey protein (WP) and resistant starch (RS) in conjunction with nutrition and physical activity education. This means development and commercialization of health bars, muffins, yoghurt, breads, and other products with high amount of WP and RS. Consumption of these products will increase metabolism and decrease appetite and in the long run assist the citizens of Louisiana, USA and worldwide to combat obesity and related diseases.

Who cares and why?

Obesity is a critical health threat to families across the United States and closely linked to cancer. The medical costs for people who are obese are generally higher than those of normal weight. The prevalence of obesity has steadily increased over the past 35-40 years among children and youth in the United States. Louisiana youth are among the

unhealthiest in the nation; 36% of 10-17 year olds are overweight and 53% don't exercise regularly. In Louisiana, 40.5% of African Americans are classified as overweight or obese. A total of 9 bills have been passed since 2004 in the Louisiana Legislature relevant to physical activity or the prevention of obesity among children and youth.

What has the project done so far?

SU Ag Center's Nutrition and Health Program received a grant to conduct research in "Combating Childhood Obesity with Caregivers as Change Agents." Twenty six African Americans were recruited to participate in the study. They were weighed before and after the study. In the treatment group, 15 individuals had Whey Protein shakes while 11 in the control group consumed placebo shakes for breakfast. This trial lasted 24 weeks with the goal to determine benefit in reducing body fat. Nutrition education intervention was incorporated into the study. All participants experienced weight loss up to 62 pounds. Some of these individuals have also seen a reduction in their prescription medication.



The success of this trial was carried by a widely read newspaper in an article entitled "Whey to Go Shakes Curb Appetites," available online at theadvocate.com and another article entitled "Shake off your weight" in Louisiana Agricultural Magazine the Winter issue. In 2013, the project staff published and distributed three issues of the 'Whey 2 Go Newsletter', to inform the public about the project and educate citizens on healthy food choices. The PI and post-doctoral fellow attended several national conferences and shared the results of the study with the scientific community as well as the extension community beyond Louisiana.

Impact Statement

The 15 individuals in the treatment group recorded weight loss up to 62 pounds, with a total of 190 pounds for the period, an average of 13 pounds each.

The cost of obesity and obesity-related diseases in Louisiana is over \$2 billion annually. Participants' reduction of Body Mass Index (BMI) through healthy diet, exercise and education could be a cost effective way of preventing obesity in families. Breakfast was chosen for this study because studies have shown that there is a strong correlation between breakfast consumption and body weight.

Studies show that a 5% reduction of body weight reduces the risk of obesity-related diseases. Participants in our treatment group lost as much as 10% of their body weight on average. The results of this study have practical and promising significance in decreasing risk of obesity-related diseases and medical expenses for families.

Participants reported that by paying close attention to what, and how much they ate in the family settings, they were taken off some of their medications, saved money, and reduced loss of income due to obesity-related health issues such as diabetes.

The government saves millions of dollars annually by paying less for Medicare and Medicaid on obesity-related health care.

What research is needed?

Future studies should include Southern University, elementary and middle school students and their families. New products such as breakfast bars or muffins that are ready to consume and acceptable to

children and caregivers need to be developed. Future weight loss programs must be more individualized.

Want to know more?

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2014, Southern University and A&M College

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