

Introduction

As of 2010, about 70% of adult Americans are overweight and 35% are obese¹. Formerly a disease of adults, obesity is now affecting children at an alarming rate. Unfortunately the situation is getting worse; a 2004 CDC study showed that the percentage of overweight children and adolescents has tripled since 1974². Does poor health literacy contribute to the problem? Health literacy is defined as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions”³. In a longitudinal cohort study, lower health literacy was associated with higher mortality⁴. In addition, Sharif and Blank discovered a weak negative correlation between health literacy and BMI in overweight children⁵. We hypothesize that poor health literacy may also be associated with sedentary lifestyle.

Materials and Methods

Subjects: Participants were outpatients, ages 18-74, who spoke English or Spanish, from 8 clinical sites of the Residency Research Network of Texas (a collaboration of family medicine residency programs).

Procedure and Measurement: Medical students and research assistants approached 829 patients as they waited for their office visit, and invited them to complete the study questionnaire. 637 patients completed surveys for a participation rate of 77%. The 118-item patient survey included patient demographics, BMI, general health status, opportunities for healthy behaviors, locus of control, plus the following scales.

•**Education** had 3 subdivisions: Grade 0-11 (<12 years); Grade 12 or GED (12 years); Some college or beyond (>12 years)

•**Newest Vital Sign** was a brief health literacy instrument that evaluated a patient’s ability to comprehend a food label. The score was a sum of correct responses to 6 questions. The scores were grouped as following: 0-1= Low, 2-3= Medium, 4-6= High Literacy

•**International Physical Activity Questionnaire** had 4 items addressing time spent in vigorous physical activity (PA), moderate PA, walking, and sitting; the minutes per week were translated into Metabolic Equivalent Task units (MET-minutes) per week.

Conclusions

The most surprising result is the lack of statistical differences between people with low, medium and high health literacy pertaining to BMI. This suggests that having a good understanding of health information is not sufficient for maintaining the recommended weight.

Although Sharif and Blank illustrated negative correlation between literacy and BMI,⁵ the data shown above suggests that health literacy is not the sole factor. Another important factor, Language, can in some instances play a greater role than health literacy in patient’s health.

Nonetheless, there is a clear need for more vigorous and moderate physical activities for everyone. Interestingly, the higher-literacy patients were just as large and sedentary as the lower-literacy patients. This phenomenon may be due to higher educated people holding jobs that require more sitting and inactivity. Public Health personnel and physicians should be looking for socioeconomically and culturally relevant ways to help people understand health information and integrate physical activities in their daily living.

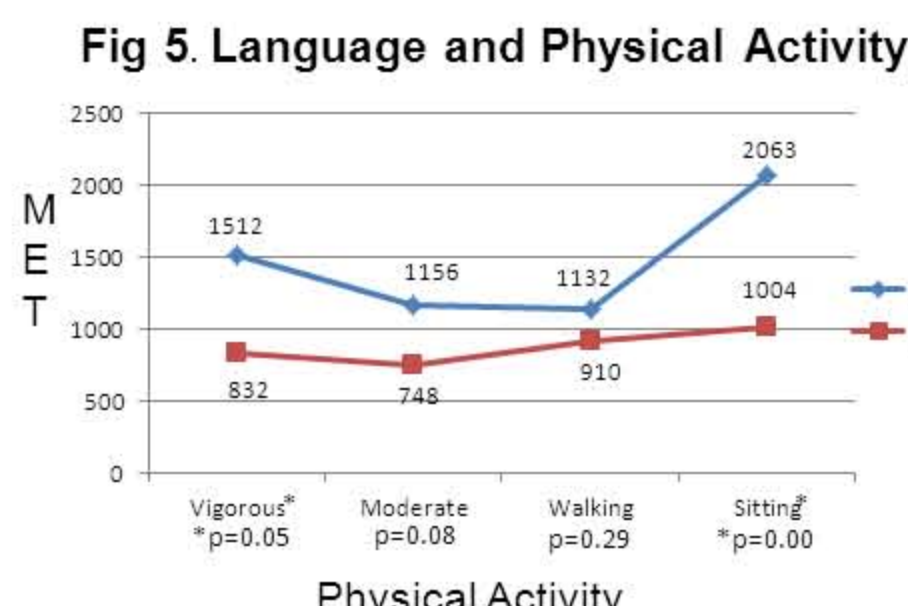
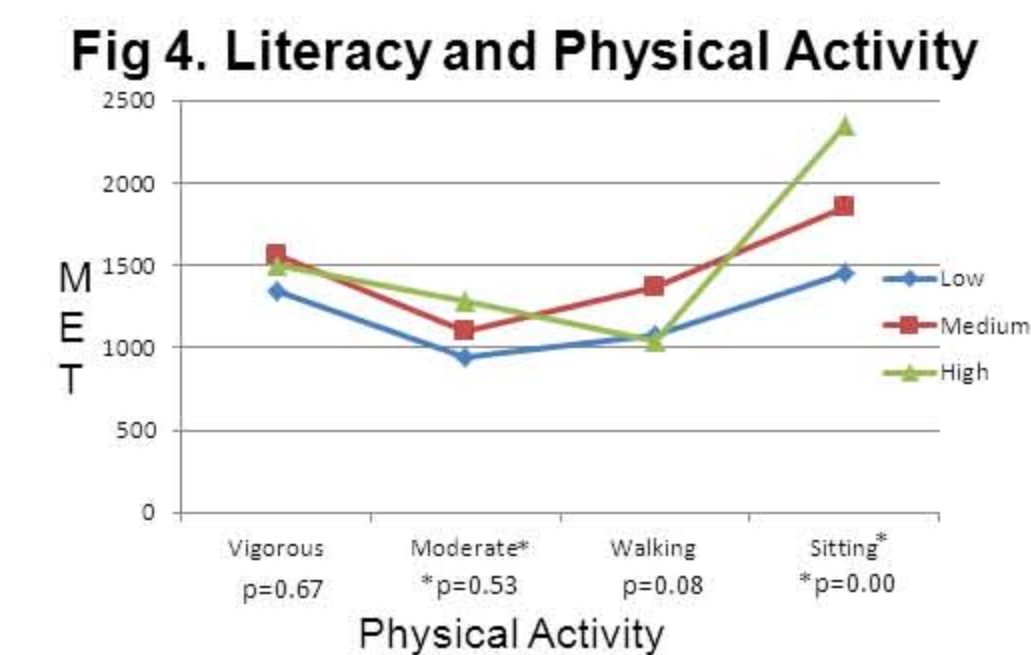
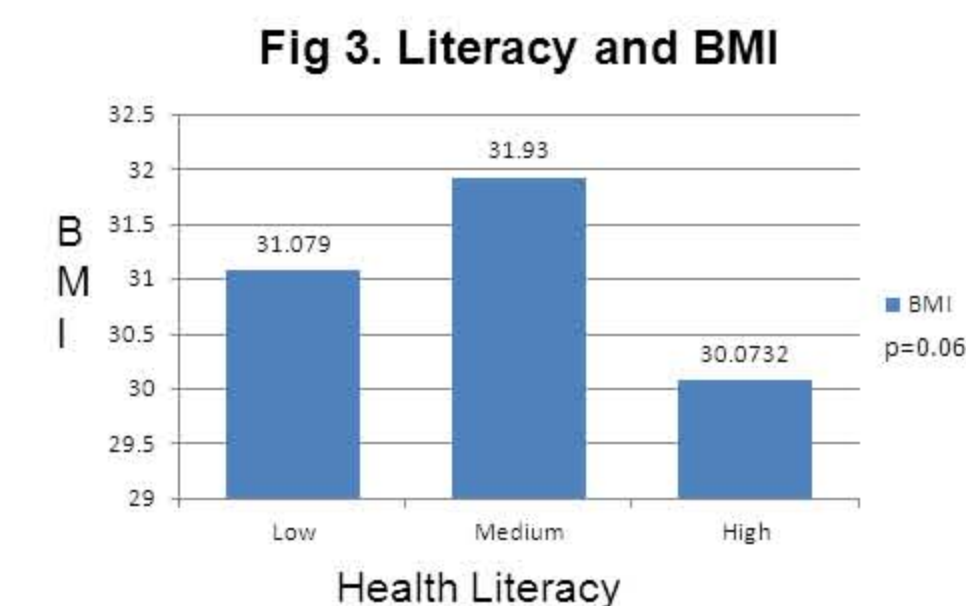
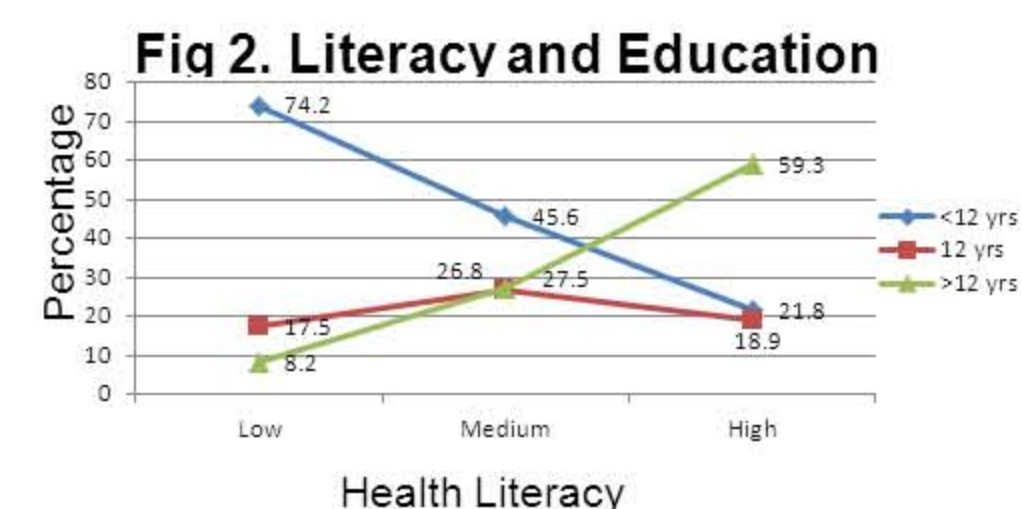
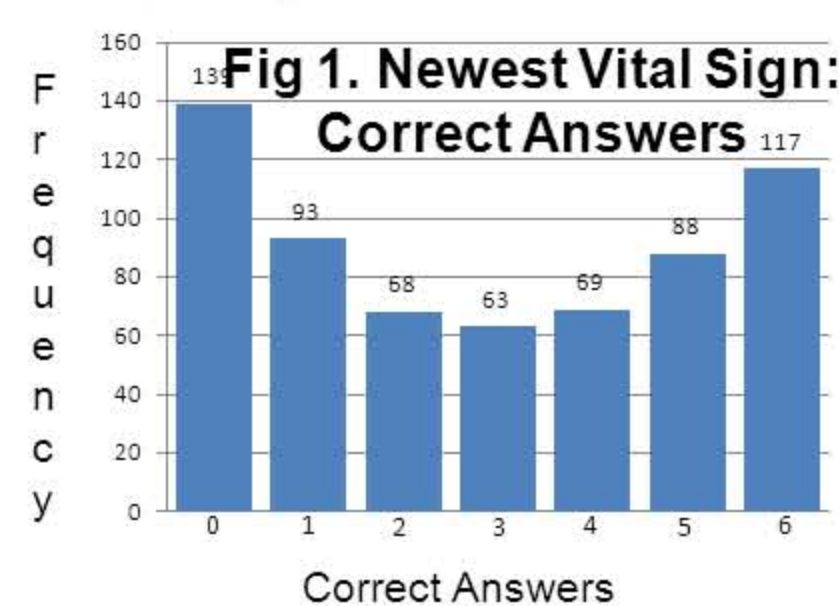
Results

Patient sample consisted of: White (non-Hispanic)—30.8%; African American—11.4%; Hispanic—57.8%; female – 55.1%.

Nutrition Facts		
Serving Size	½ cup	
Servings per container	4	
Amount per serving		
Calories	250	Fat Cal 120
%DV		
Total Fat	13g	20%
Sat Fat	9g	40%
Cholesterol	28mg	12%
Sodium	55mg	2%
Total Carbohydrate	30g	12%
Dietary Fiber	2g	
Sugars	23g	
Protein	4g	8%

*Percentage Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.
Ingredients: Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract.

Health Literacy: Food label used in the Newest Vital Sign survey



References

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Acknowledgments

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