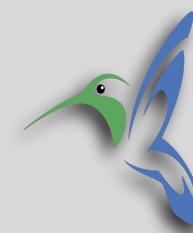


Gender Differences and Added Sugar Intake in Individuals Receiving Health Literacy Interventions

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BACKGROUND

Health literacy refers to an individual's ability to interact with, understand, and apply information to decisions regarding their healthcare and wellbeing. Low health literacy is associated with poor nutrition behaviors. Those with low health literacy consult nutrition labels less frequently and have greater difficulty determining correct food portions¹. This has led to the development of nutritional health literacy interventions. A recent study determined that low nutritional literacy was a predictor of adherence to a Westernized diet¹. A common contributing factor to an unhealthy diet is added sugar intake. Excess added sugar intake in the average Western diet most commonly comes from consumption of sugary beverages². Addressing added sugar has been a target of new nutritional interventions³. Thorough understanding of the effect of increased added sugar intake is particularly important to the prevention and treatment of nutrition related chronic diseases.

OBJECTIVES

This study was conducted to determine the relationship gender differences and added sugar intake in individuals with low baseline levels of health literacy,

MATERIALS AND METHODS

Data from the National Health and Nutrition Examination Survey (NHANES) 24- hour Dietary Screener Questionnaire for 165 patients was collected. Algorithms defined by the National Cancer Institute were used to determine DAS (dietary added sugar) in daily teaspoons of added sugar. Algorithms accounted for portion size variation based on age and gender. DAS included cereals, cakes, candy and sodas. Health literacy categories were determined using an assessment developed for the FLIGHT/VIDAS study.

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Tests of Between-Subjects Effects					
Dependent Variable: AddedSugar_DSQ					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4787.740 ^a	5	957.548	5.453	.000
Intercept	2282.204	1	2282.204	12.997	.000
FVCats	1274.709	3	424.903	2.420	.068
Gender	2664.616	1	2664.616	15.174	.000
Age	792.571	1	792.571	4.514	.035
Error	30027.363	171	175.599		
Total	59380.341	177			
Corrected Total	34815.103	176			

a. R Squared = .138 (Adjusted R Squared = .112)

Table 1: ANOVA data

RESULTS

Participants included 89 males and 80 females. All participants met criteria for enrollment in the FLIGHT/VIDAS II study by having at least one chronic medical condition, being 40 years of age or older, and a level of health literacy at an 8th grade level or below. Figure 1 shows the relationship between health literacy category and average calculated DSQ between men and women. In both women and men, a lower level of health literacy is associated with increased DAS. Although suggestive, the relation does not reach statistical significance ($F[535.19,177.37] = 2.45, p = 0.07$). However, DAS between men and women differed significantly across all levels of health literacy ($F[2602.92, 177.37] = 14.68, p = 0.03$).

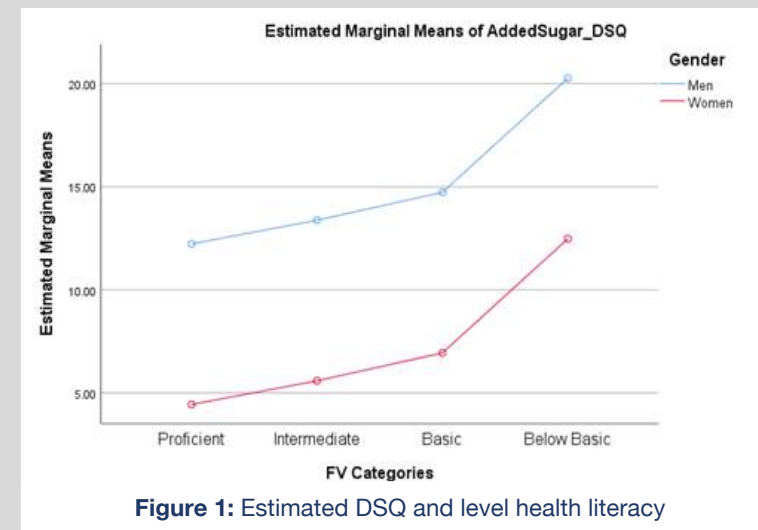


Figure 1: Estimated DSQ and level health literacy

DISCUSSION

This study demonstrates significant differences in sugar intake between gender as well as a near significant association between DAS and health literacy level. Along with previously mentioned studies, this study shows that improved health literacy may contribute to healthier nutritional choices, including added sugar intake. This information can be utilized to create tailored programs to educate patients and improve health literacy. Limitations to the study include self-reported data.

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