**Relationship of Obesity and Cancer Among the NHANES Participants**

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Introduction: Obesity and cancer independently are two important causes of death in the USA. A growing number of studies shows that these two chronic illnesses are related.

Objective: To examine the relationship of cancer and obesity using BMI and Waist Circumference (WC) as indicators using the National Health and Nutrition Examination Survey (NHANES) dataset.

Method: NHANES (2013-2014) dataset was used to obtain information on BMI, Waist Circumference (WC), and cancer (presence or absence) among the participants. The prevalence of obesity and cancer was tested with Pearson λ^2 test and the relationship of these two with education (5 levels) was examined using logistic regression. The effect of confounding variables (gender and race) was also tested.

Results: The participants who had been diagnosed with cancer were 9.5% of the total participants (11483). More than half of the participants (55%) had taken some college courses or graduated from college. The prevalence of cancer was higher (7.8% more) in females than males. The association of cancer with both BMI and Waist Circumference was significant but weak (p<0.05). The effects of age and gender were significant. By adjusting the model with race and gender R2 increased to 10.3 and all variables were significant in the model ( λ^2(11) =490.931, p<0.001).

Conclusion: Attention to proper diet and following the recommended guidelines could help individuals to somehow prevent obesity and/or cancer, which eventually would increase the quality of public health.