NON-NUTRITIVE SWEETENED BEVERAGE CONSUMPTION AND HOW IT RELATES TO CALORIC INTAKE AND BMI IN WOMEN DIETERS

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Purpose:
The research surrounding health benefits and role in weight management of non-nutritive sweetened (NNS) beverages, which provide few or no calories, is conflicting and inconclusive. The lack of definitive data on the effects of NNS beverage consumption on weight control and caloric intake is problematic as the percentage of Americans consuming NNS has increased from 3% in 1965 to 15% in 2004 (Gardner et al., 2012). The purpose of this study is to examine the relationship of NNS beverage consumption, caloric intake, and BMI in adult female dieters.

Methods: This descriptive correlational study is a secondary analysis of 14 days of food-diary data, collected in 1999-2001 for the study “Dieting, Deprivation, and Nonpurge Binge Eating in Women” (Timmerman & Gregg, 2003). The target population of this secondary analysis was female dieters. The following information was derived from preexisting data: 1) background information; 2) BMI from measured heights and weights; and 3) average caloric intake, average number of NNS beverages consumed, and average number of ounces of NNS beverages consumed. The data for NNS beverages was derived from content analysis of three days (two weekdays and one weekend day) of randomly selected food diaries. Interrater reliability was established; discrepancies were handled by examining the data and reaching a consensus.

Findings: The 54 participants studied had a mean age of 43 years (S.D. =10.98), and 77.8% were Euro-American, 9.3% were African-American, and 13.0% were Hispanic. The sample was well-educated (88.9% had some college). The average BMI was 28.68 kg/m² (S.D. =5.71), which is classified as overweight. The average number of ounces of NNS beverages consumed was 9.48 per day (SD = 13.91) while the average number of NNS beverages consumed per day was 0.72 (SD = 0.93). The average daily caloric intake of this sample was 1,845.78 (SD = 490.03). BMI was significantly correlated with average number of NNS beverages consumed (r= .42; p< .01) and average number of ounces of NNS beverages consumed (r=.41; p< .01).

Conclusions: The main finding from this study is that there is a positive correlation between NNS beverage consumption and BMI. Additional research is needed to determine the nature of the relationship between NNS and BMI.

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References: