

THE RELATIONSHIP BETWEEN THE FREQUENCY OF CONSUMPTION OF FIBER CONTAINING FOODS AND BMI OF UNDERGRADUATE UNIVERSITY OF WEST INDIES STUDENTS FROM THE TWO SELECTED FACULTIES

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Background: Dietary fiber has been hypothesized to reduce energy intake by inducing satiation and satiety (Blundell, 1987). Burton-Freeman (2000), explained that satiation occurs when eating comes to an end as the appetite is satisfied. Satiety occurs when further eating is prevented because of eating previously. Dietary fibers have bulking and viscosity producing functions which aids in satiation and satiety. Slavin (2005), explained that foods that have high fiber content have a lower energy or caloric content than high-fat foods. Thus, foods with high fiber content, causes the displacement of calories (Slavin, 2005).

Objective: The purpose of this study was to examine: **(1)** whether a relationship exists between the frequency of consumption of dietary fiber containing foods and BMI **(2)** Age, income and gender were also assessed to determine whether these variables had an influence on BMI.

Design: Across sectional descriptive design was used in this study. Convenience sampling was the sampling technique used in this study. The food frequency questionnaire component of the questionnaire mainly assessed the frequency of consumption of fiber containing foods of the participants.

Results: The percentages of the total high, medium and low fiber foods consumed were calculated. Self-reported weights and heights were used to calculate BMI of participants. The influence of age, gender and income of the participants on BMI was examined. Gender was found to be an accurate predictor of the frequency of consumption of medium fiber foods ($P=0.022$). Income was also found to be a significant predictor of the frequency of consumption of low fiber foods ($P= 0.035$).

Conclusion: There was no relationship found between the frequency of consumption of fiber containing foods and BMI. Further research needs to be conducted to obtain more accurate estimates of dietary fiber intakes of individuals via use of 24 hour diet recalls or 3 day diet records in conjunction with the use of food frequency questionnaires. Other indicators of obesity such as waist circumferences and body fat percentages should be used to assess relationship between fiber intakes and obesity.

