

IRON DEFICIENCY ANAEMIA AWARENESS AND ITS RELATION TO DIETARY
HABITS OF FIRST YEAR STUDENTS AT THE UNIVERSITY OF THE WEST INDIES ST.
AUGUSTINE CAMPUS

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Background: Among the many types of anaemia, iron deficiency anaemia is a highly prevalent worldwide problem. From research, it has been seen to affect the female population more than the male. It was also found to be significant in developing countries and the prevalence for Trinidad was found to be 24.9% in 2008 (Benoist et al. 2008). This nutritional problem occurs when there is less iron in the blood which affects haemoglobin levels in the blood. This anaemia causes symptoms that have a negative effect on mental and physical aspects of individuals. This type of anaemia can be tested through blood levels. The three stages for this anaemia ended in a reduction of iron stores so low that it affects haemoglobin levels in the blood. Dietary intake varies based on gender and age. The recommended intake for females is 18mg/day and 8mg/day for males aged nineteen to fifty. Treatment includes iron supplementation or a high iron diet. Two types of iron exist; heme iron and non-heme iron. Meat sources provide heme iron, which are highly absorbed and vegetables are a good source of non-heme iron, but these are not absorbed as much as heme iron.

Objective: To assess the level of awareness, dietary habits and risks for iron deficiency anaemia among the year one students at the University of the West Indies (UWI), St Augustine Campus stratified by gender, ethnicity and vegetarian status in the first semester of academic year 2013/2014.

Design: A questionnaire was used to assess awareness and dietary practices. A food frequency questionnaire (FFQ) was used to determine eating patterns of the subjects. The risk of iron deficiency anaemia was calculated based on three day dietary records. The statistical programs SPSS and Microsoft Excel were used to assess the data using ANOVA tests and descriptive statistics. This project was completed in Semester 1 of the year 2013 between September and December. A total of one hundred and seventy year one students were involved in this research. The studied participants were divided equally based on gender. Data collection was conducted at

UWI, St. Augustine Campus in Trinidad. A questionnaire was used to assess information about awareness of iron deficiency also looked into dietary habits focusing on the frequency of consumption of high iron foods, foods that reduce iron absorption, foods that increase absorption and a three day dietary record used to assess the risk for the development of this anaemia.

Results: Overall, the participants were aware of this anaemia and had high confidence. There was less consumption of high iron foods, more consumption of foods that reduce and those that help increase iron absorption. The risk for the deficiency was higher among the female population (43.5%, sig. 0.000). Females were more aware and confident about this anaemia than the male population. The East Indian and African participants were less confident than the mixed participants. The African participants consumed more high iron foods than the other ethnicities. Non-vegetarians were less aware of this anaemia. Vegetarian status prevented the intake of high iron meat sources, but it was found that non-vegetarians also did not consume these foods. Those not at risk and at risk consumed foods that inhibit iron absorption.

Conclusion: Overall, awareness of iron deficiency among the subjects was high. Participants of this study claimed to be aware of high-iron foods, but did not frequently consume them; this can be due to a lack of knowledge in the relation to the diet and the deficiency. The risk for the development of iron deficiency was high among the female participants due to insufficient consumption of high iron foods in the diet. There was no significance with vegetarian status or ethnicity when compared to the risk for the deficiency. An educational program should be implemented to educate the students and correct any false information they may have about the deficiency. The areas that lacked awareness and confidence should be addressed as the population is at high risk for the deficiency (57%). The aim is to increase knowledge in the dietary aspect of the deficiency and reduce the risk for the deficiency.