

Serum ferritin level in children and adolescents from a Brazilian quilombola community are associated with daily coffee intake

Ana Gabriella P Alves¹, Beatriz A Carvalho¹, Renata Carvalho dos Santos² and Maria S Silva¹

¹Federal University of Goiás, Brazil

²State University of Goiás, Brazil

Statement of the Problem: coffee intake is a habit in several countries, including Brazil, and in all age groups. There is evidence that high daily intake of coffee can reduce iron absorption in the duodenum, and can impair the growth and development of children and adolescents. In relation to children and adolescents from African continental ancestry group, coffee consumption can be even more harmful because of their inadequate nutritional status due to low income. Therefore, the objective of this study was to associate the daily consumption of coffee with serum ferritin levels in children and adolescents from a Brazilian quilombola community.

Methodology: this cross-sectional study was carried out, in 2012, with 26 children and adolescents (10.46±4.69 years) from a quilombola community located in the Central-West region of Brazil. Blood sample was collected to obtain serum ferritin levels. The assessment of coffee consumption was carried out using the food frequency questionnaire, which contains 58 foods (including coffee).

Student's t-test for independent samples was used to evaluate the difference in serum ferritin levels between participants with and without daily consumption of coffee. P values <0.05 were considered significant. This research was approved by Research Ethics Committee of Federal University of Goiás, Brazil. Findings: Most of the participants were female (61.5%, n=16). The average serum ferritin level was 52.75±28.79 ng/mL, and 38.46% (n=10) of them consumed coffee at least once a day. Participants with daily coffee consumption had lower serum ferritin levels (p=0.012) (Table 1).

Conclusion: The daily consumption of coffee influenced negatively in serum ferritin levels in children and adolescents from the quilombola community of Brazil. Whereas iron is an important mineral in the stage of childhood and adolescence, this result suggests a greater control in coffee consumption among the participants for their growth and development not be affected.

Biography

Ana Gabriella P Alves is a Nutritionist who graduated from the Federal University of Goiás, Brazil. She completed a Master's degree in Health Sciences (Faculty of Medicine/Federal University of Goiás, Brazil) and is currently a PhD student in the same program. She also concluded a Postgraduate study in Sports Nutrition and Functional Clinical Nutrition. She is a co-author of two book chapters, related to Sports Nutrition, and is Anthropometrist ISAK Level 1. She is member of the Laboratory of Physiology, Nutrition and Health (College of Physical Education and Dance/Federal University of Goiás, Brazil).

anagabriela_alves@hotmail.com

 Notes: