ABSTRACT

Composite flours containing 5%, 10%, 15%, and 20% of chia seed flour and corn were used for tortilla formulations. The effects of chia powders supplementation on the physicochemical and sensorial characteristics as well as starch digestibility of the tortillas were evaluated. Nutritionally, all chia tortillas had significantly higher levels \((P < 0.001)\) of protein, lipids, and total dietary fibre than the control. The reduced enzymatic starch hydrolysis rate and predicted glycemic index recorded for the chia seed-added tortilla indicated slow digestion features. Sensory evaluation did not show significant \((P > 0.05)\) differences in the attributes among tortillas. Owing to the increase in the total dietary fibre, lower digestion, and predicted glycemic index values, chia seed-added tortilla can be considered as a nutraceutical food. Therefore, the newly developed tortilla supplemented with chia seed flour could represent a valuable staple in improving the nutritional value of the original food product.