DEVELOPMENT AND EVALUATION OF A READY-TO-EAT KETOGENIC BAR: FORMULATION, NUTRITIONAL COMPOSITION, SENSORY PROPERTIES

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Abstract: In this study, a ready-to-eat ketogenic bar that was specially made to meet the dietary needs of people on a ketogenic diet was designed and thoroughly evaluated. Creating many formulations was part of the first step, which aimed to match the high-fat, low-carb requirements needed to maintain ketosis with the sensory aspects that mattered most to consumers. Out of all these formulations, two were chosen for a thorough sensory analysis, in which characteristics including flavor, consistency, and general acceptability were evaluated thoroughly. The combination of 52% almond flour, 30% desiccated coconut, 3% coconut flour, 4% cashew nuts, 5% peanuts, 3% dark chocolate, 1% vanilla extract, and 2% virgin coconut oil were shown to be the most effective. Potential customers found this specific combination to be the most enticing due to its exceptional sensory qualities. After being chosen, this formulation was subjected to a thorough nutritional analysis to confirm that it was appropriate for a ketogenic diet. Amount of 54.6% of the sample was found to be fat, which is in line with the ketogenic diet's objective of consuming as much fat as possible for energy. Furthermore, the protein content was found to be 15.76%, offering a moderate yet necessary amount of protein required for maintaining muscle mass and general health.

Key words: Ketogenic bar, Ready- to- eat, Nutritional, Health

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