conferenceseries.com

3rd World Summit on HEALTH NUTRITION

January 06, 2022 | Webinar

Nutrient and Phytochemical profile of Aqueous Gummy Extracts of Allium sativum and Annona muricata leaves use in Diabetes Mellitus Management

Ijioma Okorie

Michael Okpara University of Agriculture Umudike, Nigeria

Diabetes mellitus (DM) is one of the most prevalent diseases globally. The current mode of treatment of DM, which is based on synthetic drugs is expensive and causes genetic and metabolic alterations. However, safe mode of treatment involving use of materials and/or extracts of plant origin is needed to mitigate the disease development and progression, which will also constitute a cost-effective strategy in DM treatment and management. Thus, the study was aimed to determine nutrient and phytochemical profiles in aqueous gummy extracts of A. sativum and A. muricata leaves use in DM management. Methodology: Experimental study design was adopted for the study. Fresh leaves of A. sativum and A. muricata were harvested, sorted, washed and dried at room temperature. The leaves were processed into aqueous gummy extracts using standard method. About 100mg/mL each of the extracts was used to profile nutrients and phytochemicals using standard methods. One-way analysis of variant was to analyze data. Result: A. muricata and A. sativum leaves had 3.42% and 2.02% of protein, 0.35% and 0.03% of fibre, 2.17% and 0.97% of ash, respectively. Iron and calcium contents were 4.12% and 14.82% in A. muricata; and 0.87% and 4.63% in A. sativum, respectively. Vitamin B1 and C contents were 0.23% and 2.08% in A. muricata; and 0.33% and 52.40% in A. sativum, respectively. The aqueous extracts contained alkaloids, flavonoids and terpenoids. Conclusion: The study showed that the aqueous gummy extracts of the leaves were rich in vital nutrients and bioactive compounds that could exhibit anti-hyperglycaemic effects in DM

Biography

jioma Okorie is a seasoned Applied Human and Experimental Nutritionist, also a lecturer/researcher at the Department of Human Nutrition and Dietetics, Michael Okpara University of Agriculture, Umudike. In his nearly 12 years of work experience in nutrition related researches, support and care, and teaching, he has been involved in various researches on; maternal infant and child nutrition, nutrient compositions of some food crops in management of Non-Communicable Diseases (NCDs), dietary diversification with respect to food security and nutrition, childhood obesity and eating behaviours. He is also experienced in formulation & development of therapeutic diet, experimental nutrition using animal to determine the potentials of food crops and formulated diets; with IBM/SPSS statistical tools used in analyzing nutrition study outcomes, and some of the nutrition software such as; WHO-Anthro Software for child growth standard, ENA software, etc., he also has the knowledge of individual dietary diversity score method of calculating dietary diversity. He is currently looking for postdoctoral studies opportunity abroad.