Establishment and Evaluation of a Nutrition Therapy Guide and 7-Day Menu for Educating Hemodialysis Patients: A Case Study of Douala General Hospital, Cameroon

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Abstract: This study investigated the response of hemodialysis patients to an established nutrition therapy guide accompanied by a 7-day menu plan administered for a month. End stage renal disease (ESRD), also known as end stage kidney disease (ESKD), is a non-communicable disease primarily caused by hypertension and diabetes, posing significant challenges in both developed and developing nations. Hemodialysis is a key treatment for these patients. In this experimental study, 100 hemodialysis patients from Douala General Hospital in Cameroon participated. A questionnaire was used to collect data on sociodemographic and anthropometric characteristics, health status, and dietary intake, while medical records provided biomedical data. The most prevalent age group was 40-49 years, with males constituting 70% and females 30% of respondents. Among these patients, 80% were hypertensive, 3% had both hypertension and diabetes, 9% were hypertensive, diabetic, and obese, and 1% suffered from hypertension and heart failure. Analysis of anthropometric parameters revealed a high prevalence of underweight, overweight, and obesity, highlighting the urgent need for targeted nutrition interventions to modify cooking methods, enhance food choices, and increase dietary variety for improved quality of life. Before the nutrition therapy quide was implemented, average calcium levels were 73.05 mg/L for males and 89.44 mg/L for females; post-implementation, these values increased to 77.55 mg/L and 91.44 mg/L, respectively. Conversely, average phosphorus levels decreased from 42.05 mg/L for males and 43.55 mg/L for females to 41.05 mg/L and 39.3 mg/L, respectively, after the intervention. Additionally, average hemoglobin levels increased from 8.35 g/dL for males and 8.5 g/dL for females to 9.2 g/dL and 8.95 g/dL, respectively. The findings confirm that the nutrition therapy guide and the 7-day menu significantly impacted the biomedical parameters of hemodialysis patients, underscoring the need for ongoing nutrition education and counseling for this population.

Keywords: end stage kidney disease, nutrition therapy guide, nutritional status, anthropometric parameters, food frequency and biomedical data

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