

## Abstract

Women of reproductive age (WRA) are particularly vulnerable to iron deficiency due to increased physiological demands. This 12-week quasi-experimental study introduced sweet-potato leaves, an underutilized, iron-rich vegetable, into the diets of WRA in a community where the vegetable had not previously been consumed. The aim was to assess changes in consumption habits and the contribution of sweet-potato leaves to overall dietary iron intake. A total of 118 WRA were selected through random sampling. A pre- and post-test design was used, with baseline data serving as the control. Data collection tools included semi-structured questionnaires and 24-hour dietary recall interviews administered at baseline, and at the 4th, 8th, and 12th weeks. Nutrient intake was analyzed using the NutriSurvey for Windows software. At the start of the study, sweet-potato leaves did not contribute to iron intake. By the end of the intervention, they accounted for 46% of total dietary iron intake. The mean iron intake increased significantly from 12.39 mg/day at baseline to 19.82 mg/day after 12 weeks ( $p=0.000$ ). Additionally, the proportion of women meeting the recommended daily allowance for iron rose sharply from 8.5% to 86.4%. These findings demonstrate that incorporating sweet-potato leaves into daily meals can significantly enhance dietary iron intake among WRA. The study provides empirical evidence supporting the promotion of locally available, underutilized vegetables as sustainable dietary interventions to combat micronutrient deficiencies. Encouraging the consumption of iron-rich foods like sweet-potato leaves could be an effective strategy to address iron deficiency anaemia, contributing to better nutritional status and overall health outcomes for women of reproductive age.