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Live More Abundantly: A community-based lifestyle education program addressing selected chronic disease risk factors in Fiji—a pilot study

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Non-communicable diseases (NCDs) have reached epidemic proportions in Fiji.(1) Unhealthy lifestyle is one of the major risk factors and lifestyle interventions have been shown to be efficacious for primary, secondary and early tertiary prevention.(2) However, there is a paucity of evidence regarding effective community-based lifestyle interventions in the Pacific Islands, including Fiji. The merged REFLECT/CHIP program focusing on healthy diet, physical activity and stress management, was developed for the low-literacy communities in the Pacific Islands and was trialled in Fiji in 2014.(3) More recently this program was updated to include more current evidence-based lifestyle principles, including satiety and a nutrient-dense diet, mindset, changing habits, circadian rhythm, sleep, growing healthy children, reading food labels and the environmental impact of lifestyle, and was renamed Live More Abundantly (LMA). This study examined the effectiveness of LMA to reduce selected chronic disease risk factors, delivered by volunteers in the Fijian community setting. Following community health assessments conducted by the 10,000 Toes Campaign, 146 adults (115 female, 31 male) with elevated risk for NCD in the Nadi area and Taveuni Island, who resided permanently in their village and were able to prepare their own meals, attended the 9-week, 18-session LMA program (February 2022 to June 2022). Changes in selected biometric measures were analysed by Analysis of Variance. Changes in the distribution of the different risk categories of each biometric was examined by McNemar–Bowker test. For all analyses, significance was $p < 0.05$. Significant reductions were recorded for BMI (5.3%, $p < 0.001$), waist (6.9%, $p < 0.001$), SBP (11.0%, $p < 0.001$), DBP (13.6%, $p < 0.001$), pulse rate (9.6%, $p < 0.001$) and FPG (30.6%, $p < 0.001$). Stratification of risk factors showed substantive decreases in the number entering the program with the highest risk categories: BMI (≥ 30 kg/m2; 15.6%, $p < 0.001$), waist (> 88 cm women and 102 cm men; 11%, $p < 0.001$), SBP (≥ 140 mmHg; 49%, $p < 0.001$), DBP (≥ 90 mmHg; 55%, $p < 0.001$), FPG (≥ 7.0 mmol/l; 65%, $p < 0.001$) and a 64% reduction in participants classified as pre-diabetic (5.5–6.9 mmol/L). Conversely, there was an increase of 287% in the number with normal FPG (≤ 5.4 mmol/L). This is of note as the 10,000 Toes Campaign's Mission is to principally address the burgeoning diabetes epidemic in the South Pacific, as well as other NCDs (chronic conditions). The change in pulse was not significant ($p = 0.380$). The results of this pilot study indicate that the revamped LMA program delivered by volunteers could significantly reduce selected chronic disease risk factors in Fiji, thereby setting the stage for providing a cost-effective means of addressing chronic disease, particularly type 2 diabetes, and improving health and wellbeing across Fiji and the South Pacific more broadly.

References

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