

The Effectiveness of a Dietary Game App Program on Nutrition Knowledge, Attitudes, and Self-Management Behaviors Among Older Adults in the Community

Mei-Fang Chen, Chia-Shan Wu, Chun-Chin Tsai*

Background:

Self-management of dietary behavior is a key component of promoting health in older adults. However, past evidence indicates that elderly individuals often exhibit inadequate self-management in their dietary practices.

Purpose:

This study aimed to develop and evaluate the effectiveness of a dietary game app program in enhancing nutrition knowledge, attitudes, and dietary self-management behaviors among community-dwelling older adults.

Methods:

A quasi-experimental, two-group pretest-posttest design was employed. A total of approximately 60 older adults were recruited from two community neighborhoods. One neighborhood served as the control group and continued with its routine community activities, while the other was assigned to the intervention group. The intervention group participated in a four-week dietary game app program, consisting of one 60-minute session per week. The sessions were as follows: (1) Week 1: “The Six Major Food Groups” game. (2) Week 2: “Calorie Challenge” game. (3) Week 3: “Glycemic Index Challenge” game. (4) Week 4: “Healthy Eating and Lifestyle” game. Nutrition knowledge, attitudes, and self-management behaviors were assessed at baseline and one week after the intervention. Data were analyzed using SPSS 22.0 with generalized estimating equations (GEE) to examine group-by-time interaction effects.

Results:

Compared to the control group, the intervention group showed significant improvements in nutrition knowledge, dietary attitudes, and self-management behaviors following participation in the dietary game app program.

Conclusion:

This study provides preliminary evidence supporting the use of digital game-based interventions to promote dietary health among older adults. The findings offer

valuable insights for the development of gamified strategies in community health promotion for the elderly.

Keywords:

Dietary game, older adults, nutrition knowledge, attitudes, self-management behaviors.