Impact of Culinary Nutrition Education for Dietetics Students on DASH-diet Culinary Recommendations

Carmen Oh, Jamie Kubota, MS, RD, Colette LaSalle, PhD, RD
Department of Nutrition, Food Science, and Packaging, San José State University, CA

BACKGROUND

- Culinary Nutrition Education combines the science of nutrition and culinary arts. The aim is to bridge the gap between culinary techniques and nutrition prescriptions to create a cohesive guidance that translates into sustainable eating patterns for patients.1
- Researchers found 94% of 68 dietitians surveyed received requests for recipes and recipe modification, however, majority could not provide the information.2
- The DASH-diet is originally designed to treat and prevent hypertension, but it can also be an effective eating pattern for various conditions.

OBJECTIVE

- To determine the impact of a combined lecture and DASH-diet culinary module for dietetics students at San José State University (SJSU) on knowledge and self-efficacy in making culinary-related recipe adaptations.

METHODOLOGY

- **Time 1** (week 0)
  - Lecture & Pre-Questionnaire n=13
  - Post-Questionnaire n=11

- **Time 2** (after 1 week)
  - Lecture & Pre-Questionnaire n=14
  - DASH-diet culinary module & Post-questionnaire n=12

- **Time 3** (after 7 weeks)
  - Follow-up Questionnaire n=12
  - Follow-up Questionnaire n=11

**Figure 1.** Experiment timeline for control and intervention group

- A questionnaire was used and consisted of questions regarding sodium knowledge (validated), cooking confidence levels, and recipe modification ability.
- Data analysis: Paired samples t-test to analyze within group data and independent samples t-test to analyze between groups.

**RESULTS**

**Figure 2.** Indexes with significant mean scores between T1 and T2 within control group.

**Figure 3.** Indexes with significant mean scores between T1 and T2 within intervention group.

**Figure 4.** Indexes with significant mean scores between T1 and T3 within intervention group.

**Figure 5.** Indexes with significant mean scores between control and intervention group.

**DISCUSSION**

- **Within the intervention group:**
  - ↑ Sodium Content in Food’ index after intervention – Lecture may need to be enhanced for clarity and content.
  - ↑ ‘Cooking Confidence’ index after intervention but not retained. Could have happened because the cooking module was a one-time lesson vs other studies had semester long programs4,5.
  - ↑ Sodium Identification & ‘Ingredient Substitution’ indices after intervention and retained. May indicate that this form of education may be effective method in helping students translate information into practical terms.
- **Within the control group:**
  - ↑ Sodium Identification & ‘Ingredient Substitution’ indices - Questionnaire from T1 may have prompted students to search for the answers.
  - Cooking frequency data was used to determine differences in performance between those that cooked more or less often. Control group displayed a trend of higher cooking frequency and higher scores in majority of the indices (not significant).

**STRENGTHS & LIMITATIONS**

- **Strength:** Aligns well with the Future Education Model.
- **Limitation:** Pilot study with a small sample size. Only partial of the questionnaire was validated.

**FUTURE DIRECTION**

- Expand program to include additional class time and/or integrate hands-on cooking modules.

**REFERENCES**


Contact: Carmen Oh, ohcarmen5@gmail.com