

Impact of a Single-Session Dairy Nutrition Education Program

Morgan Bahl, Department of Food Science and Human Nutrition

Abstract

Dairy is a nutritious, affordable and versatile food group making it a great option for limited resource individuals and those utilizing emergency food assistance. The purpose of this project was to promote the awareness of dairy benefits to limited resource audiences using different educational strategies and adaptations of the Midwest Dairy Council's "Dairy Makes Sense" nutrition education curriculum. The target audiences for this project included youth at a local after-school program, older adults at a congregate meal site and the general public at a local health fair. The youth, older adult and health fair programs were adapted using the original materials from the Midwest Dairy Council's "Dairy Makes Sense" curriculum. These programs were tailored for the intended audience and were provided as a free educational experience. For youth, a 45-minute in-person session included a trivia matching game and food group identification activity integrated into an interactive lesson. Older adults took part in a 25-minute "Lunch and Learn" presentation, including an informational display board and a recipe demonstration. Youth and older adult participants completed a nine-question and five-question questionnaire following the program respectively. Fifty-seven (27 Youth, 20 older adults, 10 adults from a health fair) participated. Descriptive statistics were used to assess program outcomes (knowledge, familiarity and likelihood of consuming dairy). After one of these three programs, participants reported a higher knowledge, familiarity, and likelihood to consume dairy. These findings suggest that brief dairy education sessions are effective at increasing awareness of the health benefits of dairy.

Background

- In 2015, 15.8 million households were food insecure, meaning they did not have access to a safe and nutritious food supply.¹
- Three million insecure households include children.¹
- Dairy is a low-cost, nutritious and protein and mineral-rich food source for limited resource individuals and those utilizing emergency food assistance.
- 2014 NHANES data indicated that for children 2-18 years, the average daily consumption of dairy products 2.2 cups and 1.68 cups for individuals 19 and older². The recommended amount is 3 cups per day.

Purpose

- To promote awareness of the benefits of dairy to limited resource audiences using different educational strategies and adaptations of the Midwest Dairy Council's (MDC) "Dairy Makes Sense" nutrition education curriculum.

Objectives

- Provide participants with a free educational experience and taste-testing opportunity of a novel and nutritious dairy recipe.
- To determine to what extent a one-time dairy program can impact familiarity with dairy health benefits and the likelihood to consume dairy products.

"Dairy Makes Sense" Program Overview

- MDC provided materials were modified to provide more content and interactivity based on the chosen delivery method.
- Three programming options were created (Table 1).
- The "Youth" and "Older Adult" lessons were adapted from a brief tasting demonstration to be 45 minutes and 25 minutes respectively.
- MDC materials were included on the display board for use at program sessions.



Program Overview Continued

Table 1: Overview of "Dairy Makes Sense" Programs

Age group	Approach	Implementation	Activities
Youth	<ul style="list-style-type: none"> Game-based interactive lesson 	<ul style="list-style-type: none"> 45 minutes Integrated activities into lesson 	<ul style="list-style-type: none"> Dairy trivia matching game Food group identification activity Evaluation (worksheet) Taste-testing
Older Adults	<ul style="list-style-type: none"> Didactic lesson Practical tips provided 	<ul style="list-style-type: none"> In-person 25 minute discussion Informational Tri-Fold Display Taste-testing 	<ul style="list-style-type: none"> Lunch and Learn lesson Recipe demonstration and taste-testing
Health Fair Participants	<ul style="list-style-type: none"> Quick dairy facts provided on tri-fold board 	<ul style="list-style-type: none"> Booth-style presentation Recipe cards were distributed Taste-testing 	<ul style="list-style-type: none"> Taste-testing Quick nutrition facts provided by display leaders

Methods

Program Implementation:

- Recruitment was completed via convenience sampling
 - Youth:** Collaborated with the activity director of a local after school youth program to provide an enrichment experience.
 - Older Adults:** Collaborated with a local congregate meal site activity director to provide a "Lunch and Learn" session.
 - Health Fair:** Presented at a local Health Fair after an invitation from the chairwoman.

- 57 participants took part in the program
 - 27 Youth ages 10-13 attended the youth session (16 males, 11 females).
 - 20 older adults (10 of the 12 survey respondents were female) attended the lunch and learn
 - 10 adults took stopped by the health fair display

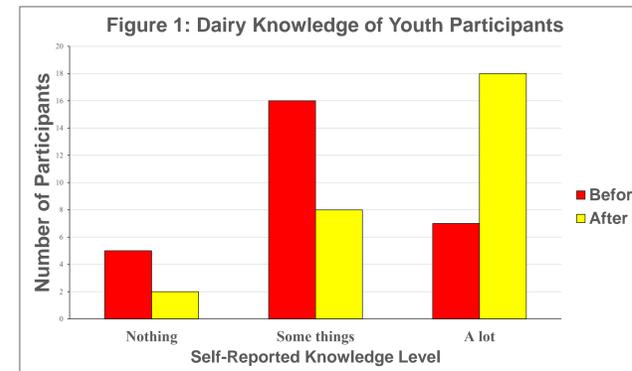
Program Evaluation:

- Post-Pre program evaluations were distributed during the youth and older adult programs; they were not administered during the health fair due to the time constraints of the participants.
 - Youth:** Nine-question worksheet measuring self-report familiarity and knowledge about the benefits of dairy and likelihood to consume.
 - Older Adults:** Five-question questionnaire measuring self-report familiarity and likelihood to consume dairy.
- Responses were entered into a Qualtrics survey and were analyzed using descriptive statistics

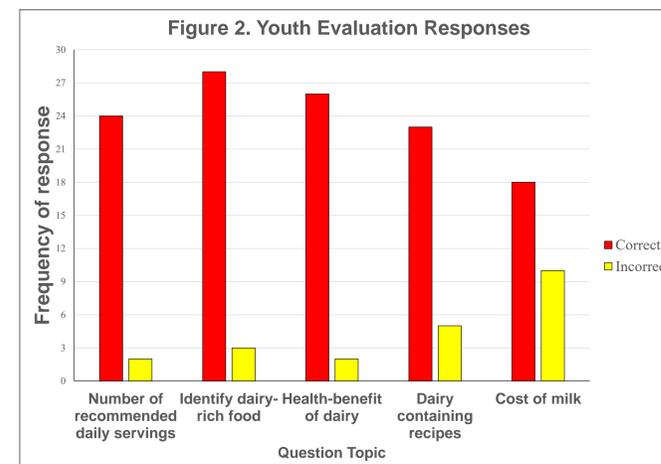
Results

Youth Outcomes:

- Youth participants reported increased familiarity post-program regarding dairy (39% increase; Figure 1).

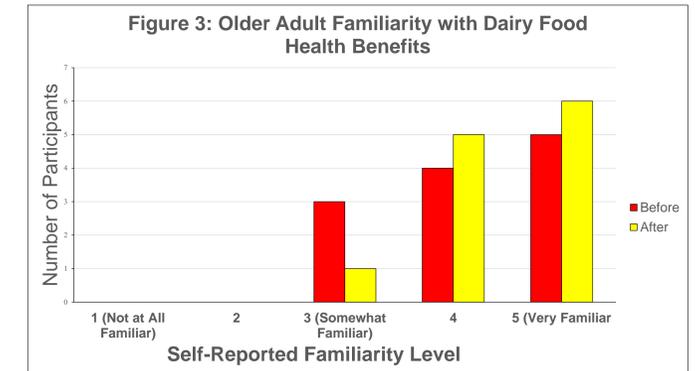


- 82% of youth reported a high likelihood of consuming dairy foods after attending the program.
- Most youth correctly answered the following questions on the evaluation: (Figure 2)



Older Adult Outcomes

- Older adult participants reported higher levels of familiarity regarding dairy benefits after attending the session (Figure 3).
- Three-quarters (n= 9 out of 12, 75%) of the older adult participants stated they are "very likely" to consume dairy products.
- All answered the question regarding the health benefits of dairy correctly.



Challenges

- The "Dairy Makes Sense" program was intended to reach individuals in need of or utilizing emergency food assistance programs; however there was resistance from the coordinators of these outreach programs due to the desire to preserve dignity of the participants.
- To overcome this challenge, recruitment efforts were redirected towards other groups where participants may have limited resources and may benefit from the education and reported this obstacle to the MDC.

Limitations

- The generalizability of these results is limited due to the small sample size, use of convenience sampling, the collection of self-report data, and the lack of sociodemographic data.
- The use of convenience sampling at organizations with pre-formed groups limited our sample size and likely led to the inclusion of individuals interested in nutrition and health topics.
- Self-report data may present response bias in that participants may have reported what they perceived as "desirable" responses.

Conclusions

- Both the youth and older adult participants reported higher familiarity regarding dairy benefits post-program and a majority reported a higher likelihood to consume dairy products.
- Results suggest brief dairy education sessions are effective at increasing awareness of the health benefits of dairy.

References

- Coleman-Jensen, A., Rabbitt, M. P., Gregory, C. A., & Singh, A. (2016 September). Household Food Security in the United States in 2015 (Publication). Retrieved February 2, 2017, from United States Department of Agriculture, Economic Research Service: https://www.ers.usda.gov/webdocs/publications/err215/err215_summary.pdf?v=42636
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