



Nutrition & Cancer Curriculum for Nurses (Nutrition in Medicine Educational modules include: Nutritional Anemias; Nutrition and Stress; Nutrition and Cancer; Diet, Obesity, and Cardiovascular Disease; Diabetes and Weight Management, Aberrations in Glucose Metabolism; Maternal and Infant Nutrition; Nutrition and Growth; Nutrition for the Second Half of Life; Supplements and Fortified Foods; Sports Nutrition)

Grant Number: R44CA75919-03

Abbreviated Abstract

Long term Objectives: In 1981, it was reported that 35% of cancer mortality in the U.S. can be attributed to diet (Doll and Peto, 1981), but nutrition educated health care professionals have remained woefully inadequate. The University of North Carolina developed an interactive multimedia course (eight modules) on Nutrition in Medicine for medical students. Over 70 U.S. medical schools have adopted the UNC series; probably all 130 will be using it soon. UNC raised \$2 million to produce this software (\$450,000 from the NCI, the rest from other foundations). This budget only allows UNC to produce versions for medical students; Interactive Information Incorporated will modify this series to produce versions for practicing health care providers, their patients, undergraduates, and the public. Specific Aims: During Phase I, the company will modify one module, Nutrition and Cancer, for practicing nurses, adding: new content (e.g., social contexts for eating behavior, lifestyle barriers to changing such behaviors), new video, and new art: this modification process will include formative evaluation during development, efficacy testing of prototype, and testing of information transfer methods. Technological Innovation: The UNC curriculum on Nutrition in Medicine is the first of its kind; a comprehensive core course, interactive multimedia form, designed to teach this increasingly important topic to medical students. All health care providers need this information; i2i will deliver it.



Primary Investigator

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Dr. Charles Lee is the Vice-President and Director of Technology for Medeor Interactive, Inc. at Chapel Hill, North Carolina. He is a physician in Internal Medicine and received post-doctoral fellowship training in curriculum development and research at Michigan State University and was a National Library of Medicine Fellow in Medical Informatics at the University of North Carolina at Chapel Hill (UNC) and Duke University. He is the developer of the Nutrition in Medicine series at the UNC's School of Public Health and serves as a clinical assistant professor on staff.

Research Team & Affiliations

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Total Budget

\$850,000.00

Research Objectives

Aim 1: Modify computer-based instructional modules for use by practicing nurses, physicians and other health professionals.

Aim 2: Test the mechanisms to transfer the nutrition science information and provide continuing education credit and technical support.

Aim 3: Determine whether the computer-assisted interactive modules effectively transfer nutrition information to physicians and nurses.



Theory/Hypothesis

The computer-based format is an effective mode for the dissemination of nutrition competencies to healthcare professionals.

Experimental Design

Ongoing formative evaluation during content and presentation development. Completion of multiple choice exams by professional users.

Final Sample Size & Study Demographics

On-going participation of physicians, nurses, dietitians and other healthcare professionals for continuing education credit.

Data Collection Methods

Initially printout of computer-based multiple choice exam result; now online administration of exam.

Outcome Measures

Satisfactory completion of modules and passing of exams.

Evaluation Methods

Formative evaluation by internal and external reviewers; exam completion.

Research Results

We completed extensive formative evaluation, and have sent CDs to all accredited medical schools, nursing schools and undergraduate departments. The responses show excellent acceptance and successful completion of the continuing education test components by all users (low-scoring users are automatically directed back to the study content and have to take a new exam).

Barriers & Solutions

The continuing education examination process limits the potential for a more rigorous systematic evaluation. External evaluations by reviewers from the American Nutrition Society, the American Dietetic Association and the American Medical Association have provided a satisfactory alternative.

Product(s) Developed from This Research

Nutrition in Medicine