



Home-based Nutrition Education Programs Can Improve Dietary Status

Francis, S., & Taylor, M. (2009). A social marketing theory-based diet-education program for women ages 54 to 83 years improved dietary status. *Journal of the American Dietetic Association*, 109(12), 2052-2056.

How can diet education help older adults?

Older adults living in the community may be at risk for malnutrition. Part of this risk may be due to a lack of knowledge about daily dietary needs. This lack of knowledge in combination with other age-associated problems can lead to an inadequate diet. Nutrition education programs can help older adults acquire the knowledge they need to make positive food choices and lessen their risk of malnutrition. This study determined if nutrition counselling on key nutrition prevention practices as delivered by a dietitian was more effective than mailed information.

What was done?

This 90-day study targeted the dietary risks associated with cardiovascular disease that were identified in a previous study. Fifty-eight community-residing older women ages 54 to 83 were recruited through word of mouth and convenience sampling. Participants were grouped by three age cohorts and then assigned to either the control or intervention group. The difference between the groups was the number of sessions that the participants saw a Registered Dietitian (RD). All participants met with the RD during visits one and four when pre and post assessments were taken. In first visit, both groups received information concerning the importance of nutrition for women's health and instructions on how to complete a 3-day food record. Only intervention group participants received two RD-led nutrition counselling sessions in their home (visits two and three). During visit two, the RD provided a 60 minute session on educational material that encouraged participants to increase their intake of fibre and to decrease the consumption of whole milk products, saturated and trans fats, and high sodium foods. Visit three focused on nutrition topics selected by participants; the most common topic was cardiovascular disease preventative dietary practices. The control group participants received education materials in the mail around the same time that the intervention participants were visited by the RD. Three, 3-day food records completed by all participants throughout the study assessed dietary intake. The dietary status of all participants was measured during visit one and four using the Mini Nutritional Assessment. During visit four, all participants were also given a non-validated questionnaire that assessed their perception of positive or negative changes in their diet as a result of the program.

What was found?

Positive results were found for both the intervention and control groups; the Mini Nutritional Assessment Scores increased in both groups. In terms of dietary intake, the intervention group participants' sodium consumption significantly decreased from the first food record to the last food record. Sodium intake also decreased in the control group but this trend was not significant. Small changes were seen in fibre and cholesterol for the intervention group, while the control group had negative trends in intake; significant

difference in fibre intake was seen between groups. Overall, both groups met the cardiovascular disease dietary recommendations for sodium, cholesterol and energy but did not consume the recommended fibre intake. The majority reported making positive changes including an increased consumption of fibre, fruits and vegetables, as well as having better portion control. Several participants reported that they decreased intakes of sodium, fat, and cholesterol. There were a few participants who reported making perceived negative dietary changes (which actually supported recommendations). The majority of participants rated the program as good or excellent and almost all would recommend it to a friend. The most popular features were the individualized sessions, diet analysis, home visits, and the educational materials provided.

Importance of this research

This study suggests that in-home RD-led nutrition education programs are more successful for changing some eating behaviours, as compared to mailed educational materials, although both programs achieved positive changes. Even though this was a small sample, participants seemed to enjoy the program, learned from it, and would recommend it to a friend.

Applying what was found

Even though RD-led educational sessions may improve some components of dietary status, the use of quality, audience-targeted educational material can also prove to be successful when RD sessions are not feasible. Materials can be provided to community residing older adults in combination with other programs such as home-delivered meal assistance. Since there were a few participants who did not understand the significance of the changes they were making (i.e., perceived them as negative) it is important to receive feedback from clients to determine the effectiveness of nutrition programs and where changes need to be made.

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