



Fruit and Vegetable Intake in Older Adults

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Why is Increasing Fruit and Vegetable Intake Important?

As adults age, their risk of developing chronic disease conditions increases. It is known that adequate daily intake of fruits and vegetables is associated with a decreased risk for developing chronic diseases. Among the most prevalent of these conditions are coronary heart disease, type 2 diabetes, and hypertension. Historically, consumption of fruits and vegetables has been inadequate in aging adults. Various programs have attempted to target these inadequacies in an effort to improve their health. There are various factors that might negatively affect an older adult's intake of fruits and vegetables. These barriers include physical and economic status as well as shifts in social environments. The Transtheoretical Model (TTM) of Change classifies an individual's progress and state of mind towards making effective behavioural changes. The TTM can be incorporated into interventions to increase fruit and vegetable intake in older adults.

What Was Done?

The effectiveness of an intervention for community-dwelling older adults to increase fruit and vegetable consumption and exercise was assessed in this study. Participants were divided into two groups: the intervention group and the control group (who did not receive an intervention). The intervention took place over 24 months. The intervention consisted of TTM-based manuals consisting of recipes and tips and were organized by stages of change; monthly newsletters which included activities and interactive sections; expert assessments and reports conducted by trained individuals to collect data on TTM variables and tailor intervention materials; and coaching telephone calls by trained counsellors that incorporated motivational interviewing strategies. To assess the effectiveness of the intervention, several instruments were used. To assess the participant's diet, individuals completed food frequency questionnaires and were interviewed over the telephone. Stages of change were measured to assess the individual's readiness to consume an adequate amount of fruits and vegetables. In addition, participant's behaviour was assessed to determine the strategies that older adults use to help them eat more fruits and vegetables. Also, the overall confidence the participants had in their ability to eat fruits and vegetables in challenging situations was assessed.

What Was Found?

Overall, participants receiving the fruit and vegetable intervention increased their intake by 0.5 to 1.0 serving a day more than those who did not receive an intervention. 21% of the participants progressed from consuming less than five servings at the beginning of the intervention to five or more servings post-intervention. Those individuals classified in the maintenance stage of change group had a higher intake at each point in time than all other groups and were most likely to perceive their health as excellent.

Importance of Research

This study demonstrated the effectiveness of a TTM-based intervention for increasing fruits and vegetable intake in older adults. Perceived maintenance of a high fruit and vegetable intake is

associated with other health-promoting dietary behaviours such as a decrease in dietary fat. Increasing fruit and vegetable intake in older adults leads to a decreased risk for chronic disease conditions such as cardiovascular disease, diabetes, and obesity and promotes successful aging behaviours. This research also displays how individualized and targeted interventions based on improving self-efficacy of participants are highly effective in promoting healthful behaviours.

Applying the Research

Older adults need to be made aware of the importance fruits and vegetables to their overall health. Many programs are not tailored to meet an individual's needs, especially in the elderly population. This research is important to help practitioners to design intervention programs that are tailored to their patient's needs. Determining a patient's stage of change and self-efficacy can help practitioners plan programs that are tailored to the patient's motivation and stage of change and will increase the chance of success.

Written by Andrea Brennan, 2010