

ICCN Poster Presentations

Technologies in clinical nutrition practice

Developing a self-administered computer assisted dietary assessment tool for use in primary healthcare practice: perceptions of nutrition and computers in older adults with T2DM

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Introduction: With the computerised analysis of food nutrient composition and partially self-administered food record interfaces, dietitians can now focus time educating and counselling their clients. Many such dietary computer programs are progressing toward increased involvement of the client for a self-administered dietary assessment. The degree of involvement is however limited by the program structure and design. The aim of the study reported in this paper is to evaluate the perceptions, beliefs and attitudes of the client in terms of their use of computers in society and to assess the preferred program design features and attributes. Analysis of this data allows for the development of the program structure and interface for a self-administered diet history program.

Methods: A telephone-based questionnaire and focus groups were employed to evaluate the beliefs and perceptions of the clients. Thirty-seven male and female adults with type 2 diabetes mellitus (T2DM) volunteered from a previous dietary intervention study. Each participant attended only one focus group session. Participants were asked to express their opinions on a variety of interface features including preference for the use of text or graphics. Subjects were also shown a range of existing dietary assessment programs and asked to state their visual perceptions of each. Data was coded based on responses to computer use, software features, dietary assessment and nutrition programs.

Results: The sample consisted of 24 male and 12 females with a mean age of 60 years. All had T2DM and at least one additional lifestyle disease to be managed by diet. Only three subjects had never used a computer. A preference toward text was found with photographs preferred only for determining food portions. Use of computers appeared to influence the degree of comfort and level of complexity of computer interfaces with those of minimal experience preferring simplified screen layouts.

Conclusion: A self-administered dietary assessment program using the diet history concept can be utilised, yet the complexity of the interfaces differs from an interview by the dietitian. The current study concurred with the literature older persons are willing to learn computer technology, yet place a wider degree of importance on personal support. Development of a self-administered diet history program must ensure simplicity of the interface design.

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