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ORIGINAL RESEARCH

A health promotion programme in Adventist and non-Adventist women based on Pender's model: A pilot study

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Summary *Objective*: In the last decades, the epidemiological and demographic transition in Chile has resulted in a considerable increase in diet-related non-communicable chronic diseases. The aim of this study was to determine the impact of a health promotion programme (HPP) on behaviour in terms of the dimensions of the health-promoting lifestyle profile (HPLP) based on Pender's model. Pender based his research on the development of a model that explains, predicts and modifies forms of behaviour that promote health; an HPP based on this model may achieve positive changes that promote a healthy lifestyle.
Study design: This was a comparative study and the participants were Seventh-Day Adventist Church women (SDAW) and non-Seventh-Day Adventist Church women (NSDAW) aged 20–45 years from the urban area of Villarrica, Ninth Region of Chile. From a population of 300 women (150 SDAW and 150 NSDAW), a random sample of 18 SDAW and 18 NSDAW was chosen. Both groups were comparable in age and socio-economic status. An HPP was undertaken for both groups between April and September 2002. The response rate was 100%.
Methods: The overall score and the scores for the six dimensions of the HPLP (self-actualization, health responsibility, exercise, nutrition, interpersonal support and stress management) were measured in the pre- and post-test periods. Statistical analysis was performed using the Sign test and Wilcoxon's test. Data were processed using the statistical analysis system.
Results: In both groups, the median scores increased significantly between the pre- and post-test periods for the overall HPLP score and the scores of the six dimensions. When comparing the median scores in SDAW with NSDAW, only the score for nutrition

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was significantly higher in SDAW than NSDAW in both the pre-test ($P<0.0001$) and post-test ($P<0.0005$) periods.
Conclusions: These findings demonstrate that an HPP based on Pender's model improves behaviour related to a health-promoting lifestyle in both groups, but more so for the NASDW.

Introduction

Improving and protecting the health of the population has always been a priority. To attain this, different approaches have been tried to organize health care and to obtain the necessary impact. Initially, models of health care focused mainly on strategies aimed at recovering health; at later stages, more attention was given to strategies oriented towards prevention of illnesses and health promotion. The need to change the focus of health care derives from demographic, epidemiological, socio-economic, communicational and life changes that populations have experienced, and are the result of the recognition of risk factors that modify health needs.[1]

Health promotion is focused on the potential development of the individual, as well as that of his/her family, the community, society and the environment. In other words, on the physical, interpersonal and economic circumstances in which individuals live. It is a proactive approach to health that includes the development and increase of resources, and the fostering of resilience promotion to obtain the optimal functioning of human beings.[2,3]

Comparisons of diet and disease rates between Adventists and non-Adventists, and prospective cohort studies among Adventists have made an important contribution to our understanding of nutrition and health. Findings from several authors have indicated that vegetarian nutrition provides a special opportunity to reflect on the contributions of studies among this group, and to evaluate the effects of diets based on these principles on questions that remain unanswered and may be addressed by further research.[4]

The Seventh-Day Adventist Church prescribes a lifestyle based on eight health-related concepts. These include the need for a diet rich in fruits, vegetables and wholegrains which provides a high dietary fibre, low calorie, low animal fat intake, divided into three meals; the need for adequate sleep and rest, including changes of activities on weekends; regular exercising in areas free of pollution; access to sunlight every day for proper vitamin D formation in the skin; intake of adequate volumes of potable water; and the need for temperance. The Seventh-Day Adventist community also considers that their religious beliefs and practice contribute to their wellbeing. However, not every adherent follows all of these principles strictly. It is worth noting that the model proposed by Pender allows the evaluation of health-promoting forms of behaviour, most of which coincide with those that form the basis of the beliefs of the Seventh-Day Adventists.[5]

The epidemiological profile of the population from developed and developing countries has changed. Although undernutrition remains the most relevant nutritional problem in developing countries, the epidemiological transition towards nutritional problems due to excess is becoming similar to the problems in developed countries in many developing countries.[6,7] Over the last few decades, a major demographic and epidemiological transition has taken place in Chile, represented by the considerable increase in diet-related non-communicable chronic diseases (atherosclerosis and its consequences, obesity, diabetes, hypertension and cancer).[7] The strategy of the World Health Organization (WHO) on diet, physical exercise and health focuses on the main factors contributing to the growing load represented by chronic, non-transmissible diseases, the most frequent being obesity-related conditions such as cardiovascular diseases, type II diabetes and cancer. This strategy also emphasizes the need to limit the intake of animal fats, trans fatty acids, salt and simple sugars, and proposes increased consumption of fruits and vegetables and increased physical activity.[8] In this respect, countries have launched sustained national efforts to promote healthy diets and lifestyles based on WHO recommendations and considering the high prevalence of adult cardiovascular disease.[8] The WHO recognized that schools play an important role in preventing chronic nutritional diseases through education. In this way, schools may help to improve the health of students and adults because children transmit these messages to their parents.[9] The FAO/WHO have emphasized that improvement in knowledge about