

Development, Adaptation, and Implementation of a Cardiovascular Health Program for Alaska Native Women

Charlotte A. Stefanich, MS, RD, LD
Julie M. Witmer, MS
Bonnie D. Young, RN
LouAnn E. Benson, BA
Cheryl A. Penn, RD, LD
Alice S. Ammerman, DrPH, RD
Beverly A. Garcia, MPH
Stephanie B. Jilcott, BS
Ruth A. Etzel, MD, PhD

Southcentral Foundation's Traditions of the Heart program is an innovative cardiovascular disease prevention program for women designed to build on the strengths of the Alaska Native culture as a way to support and encourage positive lifestyle behaviors that focus on healthy eating, active living, stress management, and tobacco cessation. After conducting assessments of existing intervention programs and formative data collection, we adapted two existing programs, Native Nutrition Circles and A New Leaf . . . Choices for Healthy Living, to develop the Traditions of the Heart program. We implemented and evaluated a pilot intervention study to determine the program's acceptance among Alaska Native women. We used the evaluation results to further refine our study protocol. This article describes the adaptation of these programs to the cultural needs and strengths of Alaska Native women and the results of the formative evaluation used to improve the program design. The complete pilot study outcomes will be published separately.

Keywords: cardiovascular disease prevention; cardiovascular health; Alaska Natives; lifestyle interventions; women's health, nutrition; physical activity; tobacco; WISEWOMAN; stress management; Traditions of the Heart

The traditions of the Alaska Native people emphasize the importance of family, an active subsis-

tence lifestyle, and a spiritual connection with the earth. As recently as 50 years ago, diseases of the heart were not a major cause of death among Alaska Natives (Alaska Department of Health and Social Services [AKDHSS], 2000). However, the traditional way of life has changed drastically during the past century with the influx and influence of many other ethnic groups into the state (Kawagley, 1995).

Traditionally, Alaska Natives have had low rates of cardiovascular disease (CVD); however, these rates have risen to surpass rates of Alaska Whites (AKDHSS, 2000). The purpose of this article is to describe the development, adaptation, and implementation of a CVD intervention program to meet the unique needs of Alaska Native women by providing guidance, education, and support for developing healthy lifestyles.

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► CVD RISK FACTORS

The increase in risk factors for CVD such as obesity, hypertension, high cholesterol, and diabetes in Alaska Natives reflects urbanization and lifestyle changes (Alaska Division of Public Health, 1997; Ebbesson, Schraer, Nobmann, & Ebbesson, 1996; Ebbesson, Schraer, & Risica, 1998; Schraer, Adler, Mayer, Halderson, & Trimble, 1997). Self-reported data indicate that 44% of Alaska Natives smoke, compared to 23% of Alaska non-Natives, 26% lead a sedentary lifestyle versus 20% of Alaska non-Natives, and 18% eat five or more fruits and vegetables a day, whereas the national average is 23% (AKDHSS, 2000).

Few studies on lifestyle behaviors and CVD risk factors in Native populations have been conducted. Native populations across North America have a high risk for CVD because of high rates of diabetes, obesity, smoking, and inactivity (Anand et al., 2001; Harris et al., 2002; Scavini et al., 2003; Thompson et al., 2002; Welty et al., 2002). No previous research focused specifically on Alaska Native women.

► CULTURAL CHANGE

The introduction of Western culture in Alaska Native villages and cities has had a definite impact on Native people. Alaska Natives found their traditions and heritage were less accessible in urban settings, making sustaining traditional lifestyles increasingly difficult and leading many to adapt to modern culture (Kawagley, 1995). Alaska Native women may have been particularly affected given their role in maintaining traditions and providing food for their families. Westernization brought many options that were not aligned with the traditional way of life and were often at odds with a healthy lifestyle. Traditional subsistence foods were less available than commercially produced and processed foods (Adler, Boyko, Schraer, & Murphy, 1996; Murphy et al., 1995). Activity levels of Native women declined as subsistence activities decreased with Westernization (Kawagley, 1995).

► BACKGROUND

Southcentral Foundation, an Alaska Native owned and managed tax-exempt regional health corporation operating under the tribal authority of Cook Inlet Region, Inc., works to improve the health and well-being of Alaska Natives and American Indians through the development and implementation of comprehensive, relationship-based, health-related services that meet changing needs and empower individuals and families to take charge of their lives. Southcentral Foundation operates the outpatient health care services for Alaska Natives and American Indians living in the south central region of Alaska including the city of Anchorage and more than 55 villages, many accessible only by air or water travel.

In 1995, the Centers for Disease Control and Prevention developed the Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) program to offer screening and intervention for obesity, inactivity, high blood pressure, high cholesterol, and poor dietary habits—all risk factors for heart disease—to uninsured and underinsured women (Will et al., 2001). The primary goals of the WISEWOMAN program are to identify women with screening values indicative of higher risks for heart disease (high cholesterol, blood glucose, and blood pressure values) and to develop and test culturally appropriate interventions that might help reduce these risk factors (Centers for Disease Control and Prevention [CDC], 2003). Initial results from the North Carolina and Massachusetts WISEWOMAN programs indicate that enhanced intervention groups realized a greater decline in 10-year estimated coronary heart disease death rate than minimum intervention groups (Rosamond et al., 2000).

Experts have recognized the need to develop culturally appropriate interventions for ethnic and racial minority groups to increase the salience of the intervention and address appropriate issues related to behavior change (Kumanyika et al., 2003). Research has shown

The Authors

Charlotte A. Stefanich, MS, RD, LD, is an outpatient dietitian working with the Traditions of the Heart program at Southcentral Foundation in Anchorage, Alaska.

Julie M. Witmer, MS, is the program coordinator for the Traditions of the Heart program at Southcentral Foundation in Anchorage, Alaska.

Bonnie D. Young, RN, is a case manager for the Traditions of the Heart program at Southcentral Foundation in Anchorage, Alaska.

LouAnn E. Benson, BA, is a graduate student at Antioch University in Seattle, Washington and worked with Southcentral Foundation during the development of cultural materials for the Traditions of the Heart program.

Cheryl A. Penn, RD, LD, is an outpatient dietitian working with the Traditions of the Heart program at Southcentral Foundation in Anchorage, Alaska.

Alice S. Ammerman, DrPH, RD, is an associate professor of nutrition at the Schools of Public Health and Medicine with the University of North Carolina at Chapel Hill.

Beverly A. Garcia, MPH, is a social research associate at the Center for Health Promotion and Disease Prevention at the University of North Carolina at Chapel Hill.

Stephanie B. Jilcott, BS, is a PhD candidate in the Department of Nutrition at the University of North Carolina at Chapel Hill.

Ruth A. Etzel, MD, PhD, is the research director for the Medical Services Division at Southcentral Foundation in Anchorage, Alaska.

that interventions must take the culture of the population into account to be effective (Cassidy, 1994).

In 1999, Southcentral Foundation applied for funding to initiate a WISEWOMAN program in Anchorage and surrounding communities. In this article, we describe the development and pilot testing of Traditions of the Heart, a CVD intervention program that focuses on the cultural needs and traditions of Alaska Native women.

METHOD

Review of Existing Interventions

Our primary program development team consisted of a nurse practitioner, a registered nurse, three dietitians, and an exercise specialist. We reviewed the literature for existing interventions and were unable to find any that met all of the needs of the Alaska Native population. After extensive research into behavioral change intervention programs, we identified two programs that could be adapted to address the strengths and needs of Alaska Native women: Native Nutrition Circles, operated by the Center for American Indian Research and Education (CAIRE) at the University of California, Berkeley (Hodge, Fredericks, et al., 1999), and A New Leaf . . . Choices for Healthy Living (Ammerman, Samuel-Hodge, et al., 1998) developed for the North Carolina WISEWOMAN program.

Native Nutrition Circles

Native Nutrition Circles, a 12-week program emphasizing nutrition, started each session with a traditional Native story. Professional staff led the intervention sessions in a clinic setting. The format was that of a talking circle with each client given a turn and encouraged to participate. We included the program format and similar nutrition topics in Traditions of the Heart; however, we expanded the substantive portions of sessions to include physical activity, stress management, and tobacco information to offer a more holistic approach to total wellness.

A New Leaf

A New Leaf is a structured nutrition and physical activity assessment and counseling program for CVD risk reduction among low-income individuals. The program, which primarily focuses on women, was designed to: identify positive as well as atherogenic dietary behaviors (e.g., high-fat diet, low intake of fruits and vegetables); assess types and levels of physical activity; assess smoking habits and desire to quit; identify individual barriers to lifestyle modification; guide counseling by nonspecialist health care and lay providers; serve as a self-help guide or tool for group discussions; and facilitate goal setting and self-monitoring.

A New Leaf was originally developed for low-income adults with limited literacy skills residing in the southeastern United States. The principal tool of the program was a lifestyle assessment and counseling manual that emphasized practical strategies for change. The 60-page manual was written at approximately a 6th-grade reading level, in a user-friendly format that includes numerous graphics and visuals; highlights dietary habits common in the southeastern United States; features an 88-page cookbook with low-fat "southern-style" recipes; and includes a physical activity section tailored to middle-aged and older women who lack easy access to exercise facilities.

A New Leaf originated as a nutrition intervention and included a dietary assessment tool and corresponding nutrition health tips. The Dietary Risk Assessment, a brief food frequency instrument tailored to a Southern diet, has been validated (Ammerman, Haines, et al., 1991). In previous studies, the nutrition intervention has been associated with reductions in cholesterol levels and improved dietary intake among low-income men and women in rural North Carolina (Keyserling, Ammerman, Atwood, et al., 1999; Keyserling, Ammerman, Davis, et al., 1997). The physical activity intervention component of A New Leaf resulted in a modest but statistically significant increase in physical activity among African American women with type 2 diabetes (Keyserling, Samuel-Hodge, et al., 2002). Although A New Leaf offered many positive elements in terms of assessing and promoting behavior change among high risk, low-income women, the emphasis on southeastern culture was clearly inappropriate for Alaska Native women. Therefore, Southcentral Foundation staff used formative data collected from Alaska Native women to adapt the intervention.

Formative Data Collection

To ensure that the Alaska WISEWOMAN intervention was designed by and for Alaska Native women, to identify topics of interest, and to understand effective ways to reach Alaska Native women with health messages, we collected extensive formative data regarding diet and physical activity habits, preferred learning styles, and barriers to lifestyle change. We gathered information from several sources, including Alaska Native and American Indian researchers, Alaska Native staff members, and community members to ensure that all program components were designed with an understanding of and emphasis on Alaska Native cultures.

To ensure that the intervention was designed by and for Alaska Native women and to understand effective ways of reaching Alaska Native women with health messages, we asked eligible women what they thought of the ideas we were considering adapting. We surveyed 43 Alaska Native women aged 40 to 64 years in outpatient clinic waiting rooms over a 4-week period. We asked questions regarding topics of interest in nutrition such as recipes and shopping tips, and in physical