Abstract

Objectives. Knowledge of cultural beliefs about health and how they influence life choices and intervention is essential in forming health policy and health promotion programs to meet the growing needs of aging minority populations. This study explores cultural beliefs and practices of health and well-being of Yup’ik/Cup’ik women in two rural villages in southwestern Alaska.

Study Design. Exploratory, descriptive qualitative study.

Methods. Interviews were conducted with 15 mid-life and older women to address two key research questions: 1) How do Yup’ik/Cup’ik women define health and wellbeing; and 2) What environmental, social, and cultural factors contribute to healthy aging?

Results. The women in this study define health aging within the framework of subsistence living—keeping busy, walking, eating subsistence foods, and respect for elders. These beliefs and practices promote a strong, active body and mind, vital components to healthy aging.

Conclusions. While many health beliefs and practices appear very different from those current in research on aging, many commonalities and similarities emerge—concern for family, importance of physical activity and healthy diet. A significant finding of this study is that traditional Yup’ik/Cup’ik ways of living parallel that of current research findings on what constitutes healthy aging in mainstream populations. (Int J Circumpolar Health 2007; 66(1):42-50)

Keywords: Yup’ik Eskimo, Alaska Native, women, aging, health
INTRODUCTION

Knowledge of cultural beliefs about health and how they influence life choices and intervention is essential in forming health policy and health promotion programs to meet the growing needs of aging minority populations. While survival has improved for most minority groups, strong disparities persist in life expectancy, quality of life, and the causes of disability and death. American Indian and Alaska Native (AI/AN) groups vary in culture, lifestyle, and health. This diversity makes generalizations about health impracticable and contributes to inconsistencies in morbidity and mortality statistics related to health and aging. The Yup’ik Eskimo population numbers over 22,000, representing a significant portion of the Alaska Native population (1). This population offers a cultural perspective that is essential to understanding Alaska Native health and aging issues in these communities. Because the perception of aging is very diverse and context specific (2) health promotion and intervention programs for the aging must be culturally relevant to the health beliefs of each specific minority group. From early middle age, women become an increasingly dominant group in demographic terms (3), and therefore, are an increasingly central force in society. Thus, to understand the perception and experience of aging, one must examine the diverse cultural beliefs and practices of women in these minority groups.

This study explores Yup’ik/Cup’ik cultural beliefs about health and aging of fifteen mid-life and older women within a larger research project, the Center for Alaska Native Health Research. The target population for this study was women 45+ years of age of Central Yup’ik cultural descent in the Yukon-Kuskokwim Delta (YK Delta) of southwestern Alaska. Interviews were conducted in 2003 exploring the women’s experience of health and aging. Their responses are used to address two key research questions: 1) how Yup’ik/Cup’ik women define health and well-being; and 2) what environmental, social, and cultural factors contribute to healthy Yup’ik/Cup’ik aging?

MATERIAL AND METHODS

This exploratory, descriptive research study employed ethnographic qualitative data gathering methods with the goal of developing an understanding of healthy aging for Cup’ik and Yup’ik women. Knowledge was gained by hearing in their own words their life experience. Ethnographic fieldwork involving participant observation, semi-structured ethnographic interviews, and careful descriptive field notes, was carried out in the YK Delta in southwestern Alaska. Interviews from fifteen Yup’ik/Cup’ik women in two rural villages are the basis of this study.

Research setting

The YK Delta is a flat plain or tundra with many lakes, ponds, streams, and bays located on the coast of the Bering Sea. This vast delta, formed by the Yukon and Kuskokwim rivers, is rich in fish, birds, and mammals supporting the Yup’ik/Cup’ik subsistence way of life. The people of these strong, traditional communities, one coastal and one river, engage in subsistence activities (hunting, fishing, and berry picking) and most families have fish
Moose, musk ox, seal, and walrus are hunted by the men during the winter months, reindeer are herded and harvested in the coastal community. During the long days of summer, the men fish for salmon, halibut, whitefish, herring, and pike, while the women cut fish, gather berries, and harvest wild greens. Transportation includes air, boats, snowmachines, and 4-wheelers. Fuel oil and other supplies are barged in during the summer months. While commercial fishing, education and public service jobs provide the majority of cash-based employment, community members depend on hunting and gathering for food and other resources.

**Participants**

Participants were volunteers recruited through the village traditional councils, the local health clinics, and word of mouth among the women in the community. The women themselves became participants in the research process identifying other participants, scheduling meetings or interviews, and assisting with translation. Their active support was greatly appreciated and essential to this study. The participants included fifteen Cup’ik and Yup’ik women in two villages who discussed their beliefs about health and wellness. Informed consent was obtained and an honorarium was offered to all participants. The women ranged between 38 to 89 years of age, four were widowed and the other eleven were married. None of the women lived alone. Eight of the participants worked in jobs outside the home. The initials of the participants have been changed and their ages have been generalized to protect their identity. See Table I for demographics of participants.

**Participant observation**

Establishing rapport in the communities and spending time in the village was an important component of this research. In this manner, a level of trust was developed and assisted in understanding observational data (4). Participant observation during fieldwork provided an essential basis for this study, and provided important context and meaning to the interviews. Activities such as attending church, taking part in feasts and other community celebrations, fishing, and participating in steam baths offered opportunities for observations from multiple perspectives. Descriptive field notes recorded observations, interviews, and impressions. The notes were reviewed and referenced repeatedly during fieldwork and throughout analysis of the interviews.

**Semi-structured interviews**

An informal interview guide with a written list of questions and probes was used during the interview. A pilot interview was conducted.

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**Table I. Demographics of participants.**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age</th>
<th>Village</th>
<th>Language of interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>OY</td>
<td>80+</td>
<td>Cup’ik</td>
<td>Cup’ik</td>
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<tr>
<td>TM</td>
<td>50+</td>
<td>Cup’ik</td>
<td>English</td>
</tr>
<tr>
<td>HL</td>
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<td>English</td>
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<td>FL</td>
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<td>English</td>
</tr>
<tr>
<td>CU</td>
<td>60+</td>
<td>Cup’ik</td>
<td>English</td>
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<tr>
<td>JU</td>
<td>30+</td>
<td>Cup’ik</td>
<td>English</td>
</tr>
<tr>
<td>PM</td>
<td>80+</td>
<td>Cup’ik</td>
<td>Cup’ik</td>
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<tr>
<td>KY</td>
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<td>Cup’ik</td>
<td>Cup’ik</td>
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<td>FF</td>
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<td>ON</td>
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</tr>
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<tr>
<td>PP</td>
<td>60+</td>
<td>Yup’ik</td>
<td>English</td>
</tr>
</tbody>
</table>
with a Yup’ik female elder to establish culturally appropriate ways to ask questions. The women were asked to describe what they believe contributes to health and well-being. Interviews were conducted by the researcher in the respondents’ home or workplace. The audio-taped interviews averaged 45 minutes in length, and were usually conducted over tea or coffee. Interviews were conducted in English and were simultaneously translated verbatim by a Yup’ik/Cup’ik speaker. The taped interviews in Yup’ik or Cup’ik were transcribed and translated verbatim by a trained Yup’ik/Cup’ik speaking professional. Interviews conducted in English were transcribed verbatim by the researcher.

Data analysis
Qualitative ethnographic data were collected from the tape-recorded and transcribed interviews. The three phases of analysis included coding themes that emerged, categorizing them, and identifying patterns occurring across interviews (4). These categories or themes were integrated with information gathered from literature review and ethnographic data gained through observations and detailed field notes. All phases of data analysis were performed solely by the researcher utilizing codes developed from themes found in the data. No pre-packaged software analysis system was applied. The interviews were back translated to English by a second Yup’ik speaker for accuracy. Four main themes emerged that were directly related to health and aging: keeping busy, walking, eating subsistence foods, and respect for elders.

RESULTS
Themes and sub-themes are summarized in Table II. The themes are presented and illustrated by selected verbatim quotes that captured the participants’ feelings, views and opinions.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-themes</th>
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<tbody>
<tr>
<td>Keeping busy</td>
<td>Subsistence activities</td>
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<td></td>
<td>Being lazy/too much sleep</td>
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<td></td>
<td>Not listening to illness</td>
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<tr>
<td>Walking</td>
<td>Other physical exercise</td>
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<tr>
<td></td>
<td>running</td>
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<tr>
<td></td>
<td>basketball</td>
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<tr>
<td></td>
<td>volleyball</td>
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<tr>
<td>Eating subsistence foods</td>
<td></td>
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<tr>
<td>Respect for elders</td>
<td>Listening to/obeying elders</td>
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<tr>
<td></td>
<td>Transmission of cultural knowledge</td>
</tr>
<tr>
<td></td>
<td>Helping/sharing with elders</td>
</tr>
</tbody>
</table>

Keeping busy
Practices associated with keeping busy were the overwhelming theme in the interviews. All of the participants expressed the importance of keeping busy for health and well-being. Subsistence activities, such as berry picking, gathering plants, cutting and drying fish, constitute an important role for women and are a key component of Yup’ik/Cup’ik life. Other activities for keeping busy include sewing, knitting, basketry, and other crafts.

"Keeping busy (is very important). Like maybe the women are sewing, knitting, or making things. They mostly do the food gathering too. I think today most of the women are healthy for activity, physical activities. When
they go berry picking, they’re working using their bodies everything. When we are cutting fish, we are using everything, our muscles, lifting things (ON, age 60+)."

The women identified being lazy, getting too much sleep, and acknowledging illness and its limitations as important obstacles to keeping busy and contributing factors to illness.

**Walking**

Walking was the primary physical exercise identified in the interviews. The participants referred to walking as an important component of health, both physical health and mental well-being. Walking is believed to keep the body strong, promote energy, and is a basic physical activity in gathering subsistence foods. One participant identifies walking as an important contribution to an elder’s health and longevity.

"There is this one elder and she’s a good example for me. She walks everywhere. You know with modern times, she’s not taking advantage of the 4-wheelers and stuff. The only time she really does that is when the weather is bad. She walks everywhere and she is really old. Whenever her legs hurt, she walks. And that, I think, has kept her going for a long time. (FF, age 40+)."

Many women in both communities play sports in the school gym. Running, basketball and volleyball were other forms of physical exercise that women participated in until their late fifties and early sixties. Participation decreased with age, however, and the older women instead viewed traditional women’s activities, such as gathering, skin sewing, and basketry, vital to physical and mental health.

**Eating subsistence foods**

Eating subsistence foods was an overwhelming theme among all participants. Subsistence foods are thought to be healthy and to make the body strong. The participants expressed the belief that, traditionally, the people were healthy because there was no store-bought food. Market or kass’aq (white person) food is generally viewed as unhealthy.

"In years back, before I was born, I know there were elders that were very healthy and strong because they have their food, their native food, not mixed up with the kass’aq food. Although they have a hard life, they were healthy, strong, because of their native food. Seal oil, dried fish. (CU, age 60+)."

Consumption of market foods is seasonal and is dependent on the availability of subsistence foods. When subsistence foods are not available, store-bought meat and process foods that are higher in saturated fats are substituted for dried fish and game. Concern was expressed by several participants that many of the younger generation now prefer market foods and eat little subsistence food.

**Respect for elders**

Respect for elders is a common theme throughout the interviews. In all the interviews, the participants spoke of the importance of respecting their elders. The social behaviors of listening to and obeying elders, as well as helping and sharing with elders are important sub-themes. Elders possess knowledge and experience for living a subsistence lifestyle and are a critical link in the transmission of traditional knowledge. One participant spoke of the past and teaching the youth how to live a good life.
’’The elders used to have the boys and girls in the community house and teach them about the way of life. They taught them how they should live their lives in the future, to live a good life so that they would live long. When walking in the tundra, when we were small, they would pick up moss and wash themselves saying that they want to live a good, long life. That is what they taught us to do. It was like wiping away the future sickness . . . Nowadays, I don’t hear anyone giving talks, but we do hear a little bit at the church . . . when I’m gone, no one will be able to answer questions about the past, from the time my grandfather took me to the south side where they lived the very old way. (PM, age 80+).’’

Elders, both male and female, are an important resource in the community for younger individuals. People seek out an elder to listen to a problem and offer advice. Elders pass on traditional subsistence knowledge during fish camp, an important part of village life. Children and young adults learn subsistence skills by working alongside their elders. Grandmothers, mothers, and daughters usually cut fish together. Many of the elders speak Yup’ik/Cup’ik to their grandchildren, an important aspect of maintaining cultural identity and transmitting cultural knowledge.

**DISCUSSION**

Keeping busy is an important aspect of village life for Yup’ik/Cup’ik women. Village life in southwestern Alaska is centered on subsistence living, a way of life dependent on harvesting of renewable resources through hunting, fishing, and gathering. This hunting and gathering lifestyle has shaped the social, political, and religious structure of communities and defined those roles held by community members. Many of these activities provide physical exercise that keeps the body strong and healthy. Producing native crafts, procuring and processing food, providing child care, and other household responsibilities are important activities within economic and social roles aging women hold in the community.

Economic and social changes have complicated the already busy lives of women as they age. The demographic shift over the last three decades, with increasing numbers of older people, especially women, has led to greater dependence on the family as providers of care to the aged. Since women are generally the primary caregivers in the family, large numbers of women in mid-life will be informal caregivers of this older population (5). Roles have shifted as women manage both traditional responsibilities and jobs in the community.

The participants in this study demonstrated their belief in keeping busy as an important component in physical and mental health throughout the life span. This cultural belief and practice of keeping busy parallels the WHO definition of active aging which emphasizes staying active rather than focusing on physical or cognitive limitations (6). Thus, keeping busy is congruent with what current research tells us constitutes healthy aging.

An active lifestyle includes some type of regular physical activity and is a key to healthy aging in any population. Physical exercise not only promotes physical and mental health, but may also slow some components of physiological aging (7). Physical activity and active lifestyle are also important for prevention or modification of chronic conditions such as cardiovascular disease and diabetes, leading causes of
death in the AI/AN population (7-10). Increasing rates of cardiovascular disease and diabetes in the YK Delta indicate a change in the level of physical exercise among community members. Snowmachines and 4-wheelers have replaced walking as the primary means of transportation. These machines are used for daily travel within the village, for subsistence activities, and travel outside the village. The women in this study recognize the importance of physical activity for reducing the incidence of chronic disorders and in maintaining a healthy, strong body as they move through mid-age and older years.

Proper nutrition is also part of a healthy lifestyle and important to healthy aging. Nutritional status in older people is affected by many factors: eating too much or too little, taking medications, suffering from chronic illness or disease, needing assistance with preparation, and financial difficulties (7,11). The Yup’ik/Cup’ik diet is in transition. While subsistence foods are still the mainstay of the Yup’ik/Cup’ik diet, market foods are commonly eaten. Generational differences are evident. Children and young adults consume a diet higher in market foods than the older population. Older women prefer a subsistence diet, but supplement their diet with market foods. When subsistence game is not available, more market foods are consumed. Many of these market foods are high in sugar and fats that contribute to obesity and chronic disease. This has strong implications for the incidence of chronic illness and disease among the younger generations as well as mid-age and older women.

Cultural values and practices such as listening to elders, obeying, helping, and sharing are important components of village life. When elders are no longer able to carry out subsistence activities without help, family members assist them with berry picking, traveling to fish camp, and gathering wild plants. If they are not able to participate in these activities, either family or other community members will share what they have caught or gathered. Increased availability of health care has enabled many elders to remain active within their community and to maintain connection with family and community. However, many of the elders have moved into Bethel or Anchorage where family and additional health care resources are available. This trend has consequences for these communities in the future. Elders, both men and women, are an important resource for younger members of the community. They provide advice and instruction. The women in this study value cultural knowledge and the important social role elders play in the community. These beliefs and practices uphold the role of the elderly in these villages today.

Study limitations
This exploratory study is limited by its small sample size. A larger sample with equal age distribution will provide more information about health and aging across the lifespan. Selection bias is another limitation. Participants were interested in talking about health and aging and recruited each other. Despite these limitations, interview methodology, combined with participant observation, are important approaches to gaining in-depth qualitative data.

Conclusions
Concepts and practices of healthy aging are deeply rooted in the subsistence lifestyle of Yup’ik/Cup’ik women. This traditional lifestyle defines a woman’s self-identity and her place
within community. Older individuals are able to continue activities important to their sense of self-worth and mental well-being. The women in this study recognize the importance of physical exercise in preventing illness and in maintaining body strength and mobility into the later stages of life. Walking and other activities associated with subsistence living provide the primary source for physical exercise and promote physical and mental health in rural Yup’ik/Cup’ik villages. Subsistence foods, which these women value, have social and cultural meanings beyond that of nutritional worth. Traditional foods are also important in determining and maintaining cultural identity. Hunting, gathering, processing, sharing, and consuming traditional foods define and enforce social roles within the family and community (12). In the YK Delta, women play an important role in the gathering, processing, and distribution of food. This role establishes and maintains social relationships in the household and community. In turn, this role also contributes to physical activity.

Yup’ik/Cup’ik women share similar concerns about diet as women in mainstream populations. They combine knowledge of traditional foods and what makes the body healthy with western nutritional knowledge to determine what constitutes a “healthy” diet for themselves and their families. Traditional knowledge tells them subsistence foods are healthy and make the body strong. At the same time, market foods are consumed more frequently and many of these foods are high in unhealthy fat and/or sugar thereby increasing the risk for type 2 diabetes and cardiovascular disease (13). It is unclear what constitutes a healthy balance of subsistence food and market food. Further research is needed to examine what balance or unbalance currently exists, and the effects of different ratios of subsistence and market food intake on health outcomes. Additionally, this study suggests the need for further research on the nutrient value of many subsistence foods to assist women in identifying appropriate equivalents in market foods and choosing foods to promote health. Thus, Yup’ik/Cup’ik women play an important role in their own nutrition as they age, but also in the transmission of this knowledge to future generations of women.

Concern and care for others is an important value of aging Yup’ik/Cup’ik women. It shapes their role in society and performs an important and meaningful social function. Taking care of the family, especially elders, was a primary concern expressed by the women in this study. Specific responsibilities shift with age and change in family demographics. In Yup’ik/Cup’ik families, many older women are actively raising children. At the same time, many elder women continue to care for younger family members. As demonstrated in the lives of these women, concern and care for others is an important factor contributing to their sense of worth and purpose as they grow older.

In summary, Yup’ik and Cup’ik women share values and health concerns much like those of mainstream populations in the United States today. The women in this study define healthy aging within the framework of subsistence living—keeping busy, walking, eating a healthy diet, caring and concern for others. These beliefs and practices promote a strong, active body and mind, vital components to healthy aging. However, these values are realized in a distinctive cultural context that is undergoing rapid change. By reframing healthy aging in their own terms, a model can be developed to aid health care providers and health policy makers in developing culturally specific health promo-
tion and maintenance interventions. Furthermore, Alaska Native subsistence hunting and fishing rights are critical in maintaining this traditional way of life. An interdisciplinary, holistic approach to aging issues is essential, but further research on minority populations is needed. Increased attention to culturally sensitive health policy and health promotion programs to promote a healthy lifestyle is vital to increased quality of life and therefore, more people aging successfully.

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REFERENCES

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