Dedication

I dedicate this dissertation to my grandmother, Elizabeth Kamaile Kuailani Kaua, the epitome of aloha, and to my childhood social worker, Gail Hironaka, with The Queen Liliuokalani Children’s Center’s, who has been the wind beneath my wings so that I could soar, reaching my full potential and to Jim for patience beyond measure.
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Abstract

Physical activity has been shown to reduce risks for obesity and leading chronic diseases such as heart disease, cancer, stroke and diabetes. Hawai‘i State health data, 2003, shows: 1) only 54.4% of Native Hawaiians met national recommendations for physical activity; 2) 72.5% of Native Hawaiians were overweight; 3) Native Hawaiians are 60% more likely to die from cardiovascular disease and 50% more likely to die from cancer than other ethnic groups in the State. Since diet and exercise patterns established early in life ultimately influence how young adults in the transitions years between ages 18 – 25 make food purchase and fitness planning choices that impact the later adult years, the purpose of this study was to understand young adult Native Hawaiians’ perceptions related to perceived supports and barriers to living a healthy lifestyle. Four focus groups involving 32 Native Hawaiian young adults were held. Findings suggest that similarly to other ethnic groups, Native Hawaiian youth cite lack of access, demanding lifestyle, invincibility and laziness as barriers to healthy living. However, unlike other ethnic groups that define health in terms of individual strength, avoidance, and appearance, Native Hawaiian youth defined health in terms of being purposefully engaged in life’s responsibilities and prefer opportunities to be physically active in group settings. Findings support the need to modify approaches to energy balance that have been used successfully with non-Native Hawaiians for use with Native Hawaiian youth.
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CHAPTER 1
INTRODUCTION

Chapter one describes the background, research problem, and purpose of the study. The research questions, assumptions and conceptualization of the study are presented. Participatory research approaches to begin addressing the research problem are addressed. The significance of the study for nursing is discussed.

Background

Asian Americans and Pacific Islanders are the fastest growing minority groups in the US (Phillips & Grady, 2002; United States Census Report, 2000). Native Hawaiians (individuals who can trace an ancestor living in Hawai‘i prior to 1778 when Captain Cook claimed the islands for England), who comprise about 26% of the population in Hawai‘i, experience disproportionately high rates of obesity and mortality from many chronic diseases, including cancer compared to other ethnic groups in Hawaii (Carter-Pokras, & Woo, 1999; Davis et al., 2004). Health data shows that Native Hawaiians are 60% more likely to die from cardiovascular diseases, 50% more likely to die from cancer (Cancer Research Center [CRC], 2005), and 50 % more likely to die from diabetes than other groups in the State.

Equally disturbing as the high rates of disease among Native Hawaiians are the low rates of high school graduation and college enrollment. While nearly 26% of the population in Hawai‘i is Native Hawaiian less then 10% of students
enrolled in Hawai'i colleges are of Native Hawaiian ancestry (U. S. Census, 2000). College graduation rates for Native students are lower than the national average (Makuakane-Drechsel, & Hagedorn, 2000), and residents of Native Hawaiian ancestry are more likely to hold lower paying jobs than residents of other ethnicities in Hawai'i (U. S. Census, 2000).

Researchers across the globe have studied the link between education and social class, and between socioeconomic status (SES), prevalence of obesity, (Merkin, Coresh, Roux, Taylor, & Powe, 2005; Speakman, Walker, Walker, & Jackson, 2005), chronic conditions, and shorter life expectancy (Kim, Eby, & Piette, 2005). Researchers have also studied the interrelatedness of socioeconomic status (SES), and dietary behaviors (Patrick et al. 2001) for correlations to poor health among minority populations. Their studies provide a wealth of data related to using various behavior change strategies with diverse populations of different ages, ethnicities, and genders, in diverse settings (Campbell et al. 2000; Glanz, Kristal, Tilley & Hirst, 1998; Kanders et al. 1994; Kristal et al. 1995; Marcoux et al. 1999; Marcus et al. 2003; Stewart et al.2001). Unfortunately, little is known about adapting effective strategies for use with dissimilar populations (Dunn & Blair, 2002; Ikeda, Pham, Nguyen, & Mitchell, 2002), including Native Hawaiian college students. Native Hawaiian college students are exhibiting a desire for positive change in their socioeconomic status and may be open to learning about healthy lifestyle habits if programs were tailored to their preferences.
Statement of the Research Problem

Native Hawaiians experience a high rate of morbidity and mortality related to preventable chronic diseases as a result of unhealthy eating habits and physical inactivity presenting a significant social problem in Hawai‘i. Yet, nothing is known about how to intervene with Native Hawaiians in the transition years between adolescence and adulthood when young adults will be challenged to purchase food with limited funds without the benefit of adult guidance. Action needs to be taken during this critical time to understand how college students can be supported to develop good diet and exercise habits that can be sustained in adulthood.

Purpose of the Study

The purpose of this study is to elicit the perceptions of 18 – 25 year old Native Hawaiian college students about: 1) physical fitness and healthy living; 2) supports and barriers to physical fitness and healthy living; and 3) recommendations for valued intervention strategies, as a means to developing services that support college students healthy living choices.

Research Questions

1) What do young adult Native Hawaiians think about health?
2) What do young adult Native Hawaiians perceive as benefits and barriers to healthy living?
3) What kinds of services, programs or environmental supports would young adult Native Hawaiians recommend?
Study Assumptions

1) Culture is important to Native Hawaiians in terms of health, how they approach health and how they approach learning and needs to be considered in program development.

2) Action theory research and qualitative methods are appropriate because they are based on face to face group discussions consistent with the cultural ‘talk story’ method of informing others and being informed.

3) The empowering nature of action research is responsive to the call by Native Hawaiian’s for self-determination through peaceful negotiation.

Rationalization and Conceptualization of the Study

*Rationalization*

This brief overview presents key factors influencing the study problem. Key factors include: 1) Native Hawaiian lifestyle prior to Western contact; 2) Socioeconomic, education, and health issues among Native Hawaiians; and 3) Current health status of Native Hawaiians; and 4) Adolescent health habits carried into adulthood.

*Native Hawaiian Lifestyle Prior to Western Contact*

Prior to Western influence, the health of individuals, families, and communities was understood in terms of their harmonious existence with the physical environment. The health of humans was relative to the health of the ‘aina (land), wai (water) and kai (ocean) (Handy, Handy & Puku’i, 1991). Core
values of *lokahi* (unity), *pono* (to do right), *aloha* (appreciation), *laulima* (work with hands), *malama* (caring), *kokua* (helping), *ha’a’a* (humility) and others, were strictly adhered to, serving as principles for healthy living (Puku’i, Haertig, & Lee, 1972). These principles were passed along generations through the traditional *talk story* ways of learning.

Prior to Western contact Native Hawaiians enjoyed a hardy and healthy existence (Blaisdell, 1993). According to the ancient concept of health, being healthy was not a concept that could be segregated from other aspects of life’s daily experiences as a stand alone concept as it often is in contemporary discussions about health. Instead, tremendous importance was placed on *mana* (noticeable in humans as outstanding insight, talents, intelligence, strengths, compassion and leadership charisma) (Kane, 1997).

**Socioeconomic, Education, and Health Issues Among Native Hawaiians**

Low socioeconomic status has been associated with increased risk for chronic disease and poor health outcomes. (Kristensen, et al., 2006; Lubbock, Goh, Ali, Ritchie, & Whooley, 2005). The effects of poverty are evident on the rural Wai’anae Coast of O’ahu as poor academic achievement, unusually low high-school graduation rates, and high unemployment. In 1983 the *Native Hawaiian Educational Assessment Project* reported that Native Hawaiians displayed educational needs related to their unique cultural situation and different learning styles (Native Hawaiian Education Act, 2001, ¶ 14). Five, ten, and twenty years after the 1983 report, subsequent reports conducted by Native
Hawaiian-serving organizations, confirm that Native Hawaiians continued to be underrepresented in college enrollment. Studies show that less than 10% of students enrolled in Hawai'i colleges are of Native Hawaiian ancestry despite the fact that 26% of Hawai'i's population are Native Hawaiian (State of Hawai'i Data Book, 2000). Also, college graduation rates for Native Hawaiian students are lower than the national average (Makuakane-Drechsel, & Hagedorn 2000). Consequently, adolescents of Native Hawaiian ancestry who are educated in Hawai'i are more likely to hold lower-paying jobs in adulthood that also don't provide adequate health care coverage compared to residents from other ethnic groups (State of Hawai'i Data Book, 2000).

Current Health Status of Native Hawaiians

In 2006, unhealthy eating habits and physical inactivity are a significant social problem in Hawai'i. Data shows that Native Hawaiians now suffer disproportionately higher rates of obesity (Chen, Abbott, Goodbody, Wai-Ting & Rausch, 1999) and chronic disease (Blaisdell, 1993; Carter-Pokras, 1999; Davis, 2004; Hawai'i State Data Book, 2000; U.S. Census Report, 2000). Health statistics show that Native Hawaiians are 60% more likely to die from cardiovascular diseases, 50% more likely to die from cancer (Cancer Research Center Hawai'i, 2000), and 50% more likely to die from diabetes than other ethnic groups in the State.

What the statistics don't reveal is that now, more than two hundred years after Western contact, Native Hawaiians continue to maintain a strong cultural,
land-based connection to their indigenous ancestors in spite of significant change resulting from tremendous influences of the Western world (Native Hawaiian Education Act, 2001, ¶ 20). Now, there is a growing interest among young Native Hawaiians to return to the traditional lifestyle and healing practices of their ancestors to attend to the health and socioeconomic problems facing Native Hawaiians (Harden, 1999).

Adolescent Health Habits Carried into Adulthood

The period between adolescence to young adulthood is labeled the transition years (Goldscheider & De Vanzo, 1985; Grace, 1998 & Ferreira, Twisk, van Mechelen, Kemper, & Stehouwer, 2005). Students usually enter college during the transition years. This can be an exciting yet stressful time for young adults trying to adapt to changes in academic workload, starting a job, and creating new support networks. This is also a time of increased responsibility and greater freedom and control over their lifestyle choices than ever before (Von Ah, Ebert, Ngamvitro, Park & Kang; 2005).

It is widely believed that many important habits are formed and set during the transition years. An individual's health attitudes and behaviors are shaped during these years (Carey, 1984). Poor health habits shaped during the transition years are responsible for the prevalence of overweight children who grow up to be overweight adults (Patrick et al. 2001). Harris, Gordon-Larsen, Chantala, and Udry (2006), observed a doubling of obesity from 10.9% of high school students in 1996 to 22.1% of high school students in 2001. And, persons from minority
race/ethnic groups in the U.S. are likely to experience greater health risks during the transitions period.

Lack of interventions targeting poor diet, inactivity, and obesity, coupled with a decrease in access to health care, and are sited as causal agents (Gordon-Larsen, Adair, Nelson, & Popkin, 2004) of weight gain during the transition years. Because most college students fail to meet dietary and physical activity recommendations (Huang et al., 2003) adolescents who become obese in adolescents will likely remain obese well into the college years. Young adults who carried these poor health behaviors into mid-life reported that the negative attention to diet and exercise behaviors that they endured during youth contributed to emotional and psychological factors that make weight loss attempts challenging in adulthood (Davis et al., 2005). Efforts to decrease risk behaviors during the transition years are critically needed to avert the ripple effect of multiple, co-morbid, chronic conditions (Kaur, Hyder, & Poston, 2003) especially among citizens who are socio-economically disadvantaged.

Conceptualization

Promoting healthy lifestyles in contemporary terms is conceptualized on the premise that health indicators improve when individuals and communities are empowered to take increasing control over factors that influence health (Williams et al. 2003). However, "The concept of health is clearly not the same for all people" (Rogers & Knafl, 2000 p. 21). According to Rodgers and Knafl, (2000):
The word *health* conjures considerable different images or concepts for different people. The specific idea or image (the concept) of *health* that a person possesses is based on that person's culture, socioeconomic status, and personal experience, along with a variety of other factors that contribute to formation of the concept (p. 20).

Depending on the person, health may be conceptualized as the absence of disease, individual function or independence, or many other ways. The significance of this study is in using a participatory action research approach to establish a base of knowledge build upon to the words, values and referents that Native Hawaiians use when talking about physical activity and healthy living. Establishment of a knowledge base using the voice of Native Hawaiians is a necessary first step to analyzing the concept of healthy living in the Native Hawaiian context (Rogers & Knafl, 2000).

**Action Research**

The prime tenet of action research emphasizes equitable involvement of stakeholders (community individuals and groups), educators, health professionals and researchers. Action research has been used in nursing to examine health issues from the perspectives of the community (Anderson, Nyamathi, McAvoy, Conde, & Casey, 2001). Action research provides a means to examine the research questions in this study from a perspective compatible with Native Hawaiian protocol. Ancient Native Hawaiians valued highly, the process of equitable responsibility for the social circumstance of all people. An
ancient Hawaiian saying, “E malama i ke kananka nui, i ke kanaka iki” translated: “take care of the big man and the little man alike” (Handy & Puku'i, 1998, p. 201) expresses a strong cultural value for equality.

Focus Groups in Action Research

The use of focus groups is intended to engage young Native Hawaiians in discussions about their perceptions of healthy living and physical fitness. Information gained will shed light on self-determined meanings, values, purposes and approaches to an island peoples' view of healthy living. Focus group questions were developed under the guidance of a Community Action Group (CAG) which included Native Hawaiian cultural experts who provided valuable information about healthy living in the Native Hawaiian context and Native Hawaiian college students as agents to the study.

Significance of the Study for Nursing

There is an urgent need to target urban, low SES, minority communities (Wang et al. 2006). Unfortunately, no information is available about the perceptions of young adult Native Hawaiians regarding healthy living. Understanding how Native Hawaiians conceptualize health is essential to developing effective programs and services while enhancing access (Dunn, 2002; Flaskerud et al. 2002). This research responds to the need to consider culture and identity in health promotion research and contributes to the bodies of knowledge related to college students' health perceptions and the health perceptions of young adult Native Hawaiians.
Definition of Terms

1) Action theory: Research oriented to some action or cycle of actions that organizational or community members have taken, are taking, or wish to take to address a particular problematic situation (Herr & Anderson, 2005).

2) Community: A group of people sharing a common interest or sharing a common locality.

3) Qualitative research: Research that derives data from observation, interviews, or verbal interactions and focuses on the meanings and interpretations of the participants (Holloway & Wheeler, 1995)

4) Focus group research: A qualitative research technique where eight to twelve study participants are gathered in one room for a discussion under the leadership of a trained moderator. Discussion focuses on a community problem, situation or potential solution to a problem. The results of these discussions are not projectable to the general population.

5) Key informant: A member of the host culture who informs a researcher in learning about the culture being studied.

6) Native Hawaiian: Native Hawaiians (Kanaka ‘ōiwi or kanaka māoli) are a distinct and unique indigenous people with a historical continuity to the original inhabitants of the Native Hawaiian archipelago (Native Hawaiian Education Act, 2001, ¶1)
7) Culture: The behavior patterns, arts, beliefs, institutions and all other products of human work and thought, especially as expressed in a particular community or period.

8) Kupuna: Grandparent, ancestor, relative or close friend of the grandparent’s generation.

9) Stakeholders: Participants and professionals that are interested in influencing desired change.
CHAPTER 2
LITERATURE REVIEW

Chapter two presents a review of the literature on three topics relevant to the research question, Native Hawaiian health issues, college students/college-based health education and action research approaches. The databases used to support this study include: PubMed, Academic Search Premier, CINAHL (Cumulative Index to Nursing and Allied Health Literature), Health Source: Nursing/Academic Edition, and MEDLINE.

The Native Hawaiian Lifestyle

Following European maritime exploration, nearly 90% of Native Hawaiians died tragically as a result of a lack of immunity to the many diseases that they were exposed to by Western visitors. It is known that prior to Western contact Native Hawaiians enjoyed a good quality of life and health, without a history of epidemics (Blaisdell, 1993). In addition to contagious diseases, Westerners also exposed Native Hawaiians to new world views of how people should attend to education, religion, economics and healthcare. Their influence caused many rapid changes including loss of lands to grow their primary food source, kalo (taro), and led to a disastrous unraveling of the traditional self-sustaining lifestyle and protective health practices of pre-contact Hawai'i (Blaisdell, 1993).

The following paragraphs detail the deterioration of the traditional ways of maintaining health through: 1) language; 2) traditional lifestyle; 3) protective health practices; and 4) ethnic identity. A review of the health and cultural
literature shows that Native Hawaiians are interested in resuscitating indigenous knowledge and practices of healthy lifestyle in the Native Hawaiian context.

Language

The oral tradition of passing knowledge from one generation to another was anchored to the Native Hawaiian language. In 1883, with the illegal American led overthrow of the Kingdom of Hawai‘i, use of the Native Hawaiian language was declared unlawful and banned as a teaching medium. Severing the native language from daily use disrupted how elders traditionally passed health protective knowledge and values to the following generations.

Health protective language enforced the value of laulima (physically working together), to take care of self, family, community, and the environment. With a value for laulima, people naturally protected their health by being engaged in physical labor. The absence of the word laulima in daily language likely contributed to the gradual absence of the concept of being engaged in physical labor as a means to healthy living. This is just one instance of how the disruption of the use of the native language contributed to the incalculable deterioration in health for a people dependent on their language. The Native Hawaiian value for language is exemplified in the traditional saying: “I ka ‘olelo noeau ke ola; I ka ‘olelo noeau ka make”, translated: “In the language rests life; in the language rests death” (Native Hawaiian Education Act, 2001, ¶ 19).

Now, more than one hundred years after banning the native language, the impact on the transition years is seen as an over-representation of Native
Hawaiian students in special education (Yamauchi, 2003), and an under-representation of Native Hawaiian students in higher education. The impact on the transition years is reflected in low rates of high school graduation and college enrollment among Native Hawaiians. While Native Hawaiians make up nearly 26% of the population in Hawai'i, less than 10% of students enrolled in Hawai'i colleges are of Native Hawaiian ancestry (U. S. Census, 2000). Given these statistics it's not surprising to find that college graduation rates for Native Hawaiian students are lower than the national average (Makuakane-Drechsel, & Hagedorn, 2000). The downward effect of the substandard level of education has resulted in Native Hawaiians holding lower paying jobs than other groups in Hawai'i (U. S. Census 2000), and, experiencing greater barriers to healthcare associated with a low socioeconomic status.

Traditional Lifestyle

Ancient Native Hawaiians believed that protecting the 'āina (land) and wai (water) was a direct means of protecting human and environmental health (Oliver, 2002). Thus, Native Hawaiians conceptualize healthy living in terms of their understanding that what people do to each aspect of the environment can have wide reaching consequences to all other living and non-living entities. If properly cared for, a healthy environment could ensure both physical and spiritual well-being for humans (Handy et al. 1991). These concepts, holistic in mind, body and spirit, served as measures of good health and extended to all factors of domestic life including community activities, farming and food
preparation, kapa making for clothing, fishing, sport and games, hula, music, and involvement in religious and government actions (Bryan, 1950, *The Honolulu Advertiser*). These concepts (knowledge) were passed from generation to generation. Native Hawaiians have consistently expressed their dedication to preserving ancient knowledge for the future (McMullin, 2005).

*Protective Health Practices*

Good health, in pre-contact Hawai‘i, was thought to be a natural result of tending to the domestic responsibilities of a collectivist culture. Outside of common sicknesses from stress or illness, sickness was thought to be the result of malevolent influences (Bryan, 1938, *The Honolulu Advertiser*). According to Oneha (2000) Native Hawaiians experience health in terms of their sense of place, or relationship to the ‘aina (land). Oneha describes three Major Native Hawaiian concepts that affect health including: *pono* (uprightness), *mana* (divine power), and *kuleana* (responsibility). According to Oneha, these concepts shape the Native Hawaiian world view of health. Collectively, they influence *ola pono* (responsibility to one’s own health and wellness).

In contrast, mainstream Western cultural values (in the United States) tend to stress a biomedical orientation that accentuates individualism and self-sufficiency (Mayberry, Affonso, Shibuya, & Clemmens, 1999). The differences between traditional and Western approaches to health contributed to the disproportionately high rates of chronic diseases currently found amongst Native Hawaiians (Carter-Pokras, & Woo, 1999; and Davis, et al., 2004; State of
Hawai‘i, Department of Business, Economic Development & Tourism, 2000; and U. S. Census, 2000). In light of the influence of competing health views, Native Hawaiians are now 60% more likely to die from cardiovascular diseases, 50% more like to die from cancer, and 50% more likely to die from diabetes than other ethnic groups in the State. These statistics are not likely to improve in the near future as only 54% of Native Hawaiians are meeting national recommendations for the amount of physical activity necessary to maintain good health (Hawai‘i State, Department of Health, 2003).

Ethnic Identity

Today, young Native Hawaiians in the transition years are living in a post-colonization, ethnic melting pot and rightfully self-identify as multiracial (Kana‘iaupuni & Liebler, 2005). Kana‘iaupuni and Liebler (2005) examined Native Hawaiian identification in mixed-race Native Hawaiian families and found that Native Hawaiians have strong physical and symbolic ties to the land of Hawai‘i as well as strong genealogical ties to ancestral family. Both play crucial roles in racial identification. And, as Native Hawaiians become more multi-ethnic, new groups of younger more autonomous Native Hawaiians are emerging with values learned from a blended culture and often have new ways of doing things compared to past generations (Takenaka, 1995). Despite the growth of a multiethnic population of Native Hawaiians, the resurgence to preserve all things Native Hawaiian is not on preservation of blood quantum but rather on immersion and perpetuation of culture.
The resurgence of efforts to perpetuate cultural and ethnic identity among Native Hawaiians (Chang, 2001) and other ethnic groups across the United States (Kelly & Nagel, 2002) provides motivation for practitioners, policy makers and researchers to work with Native Hawaiians. The challenge is to illuminate valuable information about key issues pertinent to Native Hawaiians. Recommendations are needed that consider ways to combine traditional Native Hawaiian practices and modern practices to reach the unique multiethnic, post-colonization, generation (Yamauchi, 2003).

Recommendations to Consider Culture in Program Design

Garcia (2006) reviewed relevant literature on culture and class in relation to health promotion. The author explored issues pertaining to the effectiveness of health-promotion programs and their delivery of health-promotion interventions to ethnic, racial and cultural minorities and poor populations. The study revealed that culture is a significant component of health and encouraged health care providers to consider the social determinants of their patient's health and to also tailor programs on the basis of their patients' motivations, and resources.

College Health

The literature review on college health addresses topics relevant to college students and this study including: 1) The transitions years; 2) Student health; 3) Tailoring programs to students' interest; 4) Students' health perceptions; and 5) Social support; and 6) Recommendations of students and professionals.

The Transition Years
There have been few studies focused on college-aged students' health perceptions. The limited amount of literature that is available speaks loudly about the important health habits that are formed and set during the transition years between adolescence and young adulthood which may affect an individual's health destiny (Von Ah et al. 2005). A person's health destiny can, in fact, be altered by efforts to improve attitudes, behaviors, and knowledge espoused during the transition years when many young people enter college.

**Student Health**

Findings from college-based research studies calls for the development of effective interventions and strategies for students interested in healthful lifestyle changes (Von Ah et al.). Researchers who conducted the Youth Risk Behavior Surveillance (YRBS): National College Health Risk Behavior Survey (CDC, 1995) studied the health behaviors and preferences of college students. According to the researchers, twenty percent (20%) of college students are overweight (based on body mass index calculations). Students who are overweight are also at risk for other diseases related to poor diet and physical inactivity including diabetes, some cancers and heart disease (YRBS, 1995). These findings are consistent with national data showing that poor eating habits started in childhood and adolescence tend to continue into young adulthood and lead to overweight and obesity as people age (National Institute of Health, 2000; and Centers for Disease Control and Prevention [MMWR], 1995).
Tailoring Programs to Students' Interest

Lindsey and Saunders (1999) assessed student level of interest in health promotion. The authors found that tailoring health programs to students' interests may lead to better utilization of resources, increased participation in health programs and healthier campus communities (Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003). Programs targeting students should be based on the voiced opinions of young adults (Dovey-Pearce, Hurrell, May, Walker & Doherty, 2005) and developed to meet students' expectations and recommendations. College based programs intended to alter college students' health destiny should emphasize user opinions in program development and user involvement in program evaluation.

Students' Health Perceptions

Luquis, Garcia, & Ashford (2003) used focus groups to study college student's perceptions of health behaviors. The authors reported that participants thought that most students were not seriously concerned about their health, believing that ill health belongs to people over 40 years old. They generally were not concerned about health issues unless they were severe. The findings were consistent with a sense of invincibility (widely acknowledged in the literature) saying that it is okay to let themselves go regarding unhealthy behaviors. Analysis of their perceived barriers to health determined that they believed that busy schedules, cost and poor access were the greatest barriers to utilizing health promotion resources. Students provided recommendations to help
increase their use of health services including: 1) varying the time schedule of services to accommodate students' busy lives; 2) avoiding use of lecture style services; and 3) enlisting the help of celebrities to promote health education that is fun and active.

Social Support

Hale, Hannum, and Espelage (2005) studied college students' perceptions of physical health and their physical symptoms. Their findings indicated that a sense of belonging was a predictor of a perception of well being. Their findings also suggest that a sense of connection to a group of others is a key support component to protecting the physical health of college students.

Recommendations of Students and Professionals

Cousineau, Goldstein and Franko (2004) looked at barriers to health and optimal nutrition. The researchers reported a high correlation between expert and student matching patterns in describing health supports and barriers. Their evidence suggests that students would target similar health goals as targeted by experts. The authors recommended tailoring health programs to students' voiced preferences in order to increase service usage.

There is a need for interventions that value student's voices in developing nutrition programs. Using students' voices in program development could have far reaching potential to interest other students in health promotion. College based health promotion initiatives should focus on prevention strategies that
address socio-cultural approaches to significantly inhibit the snowballing effect of America's obesity epidemic (Kaur et al. 2003).

Tailoring programs to include culturally relevant supports can maximize self-efficacy and reduce barriers to adopting a healthy lifestyle (Von Ah et al.). Programs tailored for college students are capable of promoting self-responsibility during the college years and setting a sustainable, lifelong, healthful self-perception (Carey, 1984; Koff & Bauman, 1997).

Action Research

The literature review of action research approaches covers two areas: 1) Community based approaches; and, 2) Uses within nursing and education.

Community Based Approaches

Four key points were found in the literature:

1. Action research is designed to respond to community needs.
2. Ethno-cultural and identity factors are crucial aspects of the empowerment action process.
3. Action research is responsive to tensions between indigenous values and ways of knowing and Western research methodologies
4. Action research results in desirable health protective and disease prevention actions.

The critical focus of action research was aimed at emancipation and desirable change (Braithwaite, Bianchi & Taylor, 1994; Mohatt, et al. 2004; Rodgers & Knafl, 2000; Williams, Labonte & O'Brien, 2003). It was apparent in the literature
that action research mirrors the traditional Native Hawaiian protocol for acquiring knowledge and managing change. Traditional Native Hawaiian protocol adheres to practical wisdom and a moral reasoning which considers each circumstance in terms of certain 'rights'. Thus one should do the right thing, for the right reason, at the right time, in the right place (Handy, Emory, Bryan, et al., 1999; Handy, Handy & Puku’i, 1972).

**Action Research within Nursing and Education**

According to Boog (2003) action research originated with political and social groups guided by critical theory principles. Critical theorists rejected the all-encompassing structural power of a dominant class's ideology against the preferences of oppressed groups favoring a process of applying practical wisdom to improve social and political tensions (Connor, 2004). Social and political tensions between dominant and oppressed groups attracted the attention of naturalists who were committed to addressing social problems. The idea of researchers addressing a social problem directly with community members began with Kurt Lewin (1946). Lewin pioneered action research (Badger, 2000; Holter & Schwartz-Barcott, 1993; McCaugherty, 1991) using non-linear, collaborative cycles of "planning, acting, observing and reflecting" on changes occurring in social situations (Nofke & Stevenson, 1995, p. 2).

Lewin (1946) used an action research approach to generate knowledge that supports social change. The processes of practical, change-oriented, approaches emphasize that change strategies must move beyond planning to
also create knowledge. Paulo Freire (1970) used action research in education and accentuated the importance of participatory action in helping disadvantaged and at-risk populations engage in critical thinking processes. Freire believed that these groups could gain awareness of oppressing factors through critical thinking. He promoted the concept that awareness could empower disadvantaged groups to take part in critical action approaches to improve the political and economic conditions that they live in. Freire’s critical action approach is based on cycles of listening-dialogue-action to learn with community members about community interests.

Foucault’s (1973) and Heron’s (1996) work on critical action approaches emphasized cycles of inquiry between two or more people, “Thus, the researcher is necessarily also the inquiring agent, who is both experimenter and subject combined” (Heron, 1996 p. 3). Heron is also responsible for the shift in action research to include intuitive competencies that mirror an indigenous view of the world. The indigenous world view holds that humans exist with the rest of creation as relatives. And, consequently, have strong convictions regarding their rights and obligations pertaining to that relationship. The indigenous world view is consistent with Native Hawaiian culture (Handy et al).

Finally, McQuiston, Parrado, Martinez & Uribe (2005) considered the empowering benefits of supporting the multiple world views of the inquiring agent, the experimenter and the subject. According to the authors, “researchers should move beyond simply matching their methodology to the research
questions at hand and seek out methods that are compatible with the culture, language, traditions and particular life circumstances of the cultural group under study" (p. 1).

Defining Action Research

While the literature described how action research grew from the seeds of critical thinking, it did not offer a definition of action research. Instead, there was agreement that no single definition of action research exists (Badger, 2000; Holter & Schwartz-Barcott, 1993). No definitive description exists because the emphasis of action research is on an indefinable flexibility and a collaborative responsiveness to the research problem. Instead, action approaches should be responsive to two questions: 1) What kind of change is to be affected?; and 2) What kind of knowledge is to be developed? (Holter & Schwartz-Barcott, 1993).


The underlying goals of the technical and mutual models are in contrast to the enhancement/empowerment model (see Table 1). The underlying goal of the technical model is to test a pre-determined intervention for its effectiveness with the research group.
Typical qualities and characteristics of various action approaches modified from I.M. Holtre and D. Schwartz-Barcott, 1993.

The underlying goal of the mutual action approach is to partner researchers and practitioners to engage in cyclic discussions over time to identify problems and potential solutions.

In comparison, the goal of the enhancement/emancipatory approach is two-fold: 1) bridge the gap between real world practice experiences and the kinds of theories that address identified problems; and 2) improve the researched subject's capacities to increase their chances of self-determination (Boog, 2003).
Emancipatory Approaches to Action Research

According to Huang and Wang (2005) the fundamental tenet of action research is the development of knowledge through an empowerment partnership between the researcher and the community. The authors warn that partnership and empowerment are interrelated in action research and cannot be considered independently. As a single concept, a crucial requisite is that everyone who comes together in a partnership shares the same value perspective in relation to the research goal (Huang & Wang, 2005). Other researchers described action research as being done with community members and never done on or for community members (Hummelvoll & Severinson, 2005; Lindsey, Sheilds & Stajduhar, 1999).

Action Criteria

An action approach should be selected based on the relevance of qualifying action criteria to the issue of study. A representative list that embodies the qualities of action research is offered by Badger (2000) as the seven action criteria. Badger's seven criteria are expanded upon here to reflect subtle differences offered by different authors who also described qualifying criteria, (which is mostly a matter of semantics) in terms of:

- Community based partnerships between stakeholders and community.
- Cycles of constant reflective inquiry.
- Cyclic phases of individual and group reflection.
- Production of recommendations for a social change intervention.
- Problem-focused relevance on local concerns.
- Context-specific, future-oriented goals.
- Empowering individuals as members of a group.
- Emancipating educational processes.

These qualifying criteria can direct long term collaborative and co-operative efforts between educators, managers, health professionals and communities aimed at working to create new empowering concepts (Huang & Wang, 2005) and ethical paradigms (Hope & Waterman, 1993). Inquiry, as a utility of action-reflection cycles, increases people's involvement in the creation and application of knowledge about them and about their worlds (McNiff & Whitehead, 2006).

Non-Action

Action research has also been discussed by what it is not. It is not associated with purely empirical concepts and methods. Quantitative, deductive, experimental analysis happens under standardized, objective conditions. Experimental research focuses on outcomes that are reliably associated with illness and death but poorly associated with human emotion and reasoning.

Action Research with Focus groups

Focus group discussions have become increasingly popular as a means of community action dialogue (Minkler & Wallerstein, 2003). The use of focus groups in health care has grown in popularity as a method for assessing the
perspectives of hidden populations (Clark et al. 2003). Whether openly
dialoguing or guided, discussion groups are appropriate for engaging diverse
groups in a wide range of topics.

Focus groups have been used by researchers studying diverse topics
including: college health (Cousineau, et al. 2004) students attitudes and beliefs
(Broadbear, 2000); perinatal nurses and their role as care givers to laboring
women (James, Simpson, & Knox, 2003); the publics' attitudes toward health
policy (Turner & Gordon, 2004); and clients' understanding of health behaviors
and illness (Egede, 2002; Lowry, Hardy, Jordan & Wayman, 2004). The studies
showed that open discussions were effective in ascertaining participants'
recommendations for change where approaches utilizing surveys and
questionnaires exclusively may not have been able to uncover such
recommendations.

Talking with group members about their everyday activities also requires
familiarity with the group's unique social norms. Social norms are deeply rooted
in a person's social presentation (or belief system) which is learned and shared
within communities just as language is learned in social settings (Kreuter et al.
2003). A person's social presentation is an important aspect of self that ultimately
influences how a person thinks about and describes their daily actions. Focus
group discussions are an ideal approach to engage students in open discussions
about their perceptions of healthy living. Themes uncovered in the focus groups
can serve as the first step to developing a indigenous conceptual framework to
guide research efforts to tailor programs for both traditional and contemporary world views. (Kreuter et al. 2003).

Validity in Action Research

The type and goal of the research determines the process of assuring validity. According to Herr and Anderson (2005) the quality/validity criteria are centered on five qualifying action criteria. The criteria specifically address: 1) Dialogue and Process Validity so that new knowledge is generated; 2) Outcome Validity in the achievement of action-oriented outcomes; 3) Catalytic Validity educating both researcher and participant; 4) Democratic Validity resulting in relevance to the local setting; and 5) Process Validity asking if the methodologies were appropriate to create ongoing knowledge development (p. 55).

Validity indicators are based on trustworthiness. Trustworthiness means that the members who provided that data confirmed the researcher's findings (Herr & Anderson, 2005). Trustworthiness can be achieved through triangulation of data analysis (Lakshman, Charles, Biswas, Sinha & Arora, 2000). Researchers need to address trustworthiness as they identify emerging themes. And, they must consider the relevance of their findings to create informative and transformative knowledge (Hostick & McClelland, 2000).

Kulig, Hall and Grant (2006) also offered four criteria to verify trustworthiness including:

1. Transferability: a process through which others identify the findings as applicable to their own situation.
2. Credibility: how accurately the findings were described and interpreted within the interviews.

3. Dependability: assures that someone else could follow the researchers' decision trail and obtain comparable results.

4. Confirmability: implies that the findings and conclusions of the study are supported by actual data, noted as quotes.

In addition to trustworthiness, researchers also need to consider their position within a collaborative relationship.

*Researchers Positionality*

There are practicalities and predicaments that may be experienced depending on the researcher's positionality (Borbasi, Jackson & Wilkes, 2005). Positionality is unique to qualitative research (empirical methods require that researcher and participant maintain separate and distinct roles). Action research is concerned with the degree to which researchers position themselves along the insider/outsider continuum (Rolfe, 1996). The effects of positionality on methodology, if any, should be addressed in research.

Herr and Anderson (2005) studied numerous action research studies and reported that academic action researchers are organizational insiders interested in doing insider research to invest in their own professional development and client services and access. The authors addressed the unique vantage point of conducting research from a multiple positionality stance. They noted that the outsider-within view liberates knowledge from multiple perspectives of reality.
Reflexive Statement

The principle investigator of this study is a Native Hawaiian accustomed to the differences and similarities between Native Hawaiians and non-Native Hawaiian groups. She is a University faculty member and nurse practitioner working in a college health center. At the time of this study she was a doctoral student engaged with a community action group which included Native Hawaiian college students. She positions herself as an outsider-within (also considered an insider in collaboration with outsiders). The matter of establishing positionality is critical for reasons of clarifying issues of epistemology, methodology, trustworthiness and ethics. Herr and Anderson (2005) pointed out that:

An outsider conducting action research in collaboration with insiders has traditionally followed an inquiry/study group methodology which is dissimilar to traditional action research which has largely been conducted by outsiders doing contract or evaluation research on insiders. Knowledge generated from insider research produces knowledge created by insiders to benefit insiders. In contrast, knowledge generated by outsiders who enter the insider's arena tend to produce propositional and theoretical knowledge which often has little relevance to the personal, contextual, subjective, temporal, historical and relational preferences of the population being served (p. 30).
Action research with Native Hawaiian professionals and Native Hawaiian college students can create new knowledge to empower students to tailor desirable approaches to health protection.

Summary of the Literature

There was no literature specific to Native Hawaiian college students and their health perceptions. However, studies were done with other populations and those findings provide knowledge useful to the study of how young Native Hawaiian college students align themselves with traditional and/or contemporary approaches to healthy living. Literature on empowerment action research provided tools to assess the qualifying criteria and characteristics of the action research methodology for its relevance to the research subject.
CHAPTER 3

METHOD

This chapter presents the methodology for conducting this study. The research design, setting, study population, and sampling procedures are offered. Protection of human subjects, instrumentation, data collection, management and analysis are discussed. Procedures for establishing trustworthiness of this study are also included in this chapter.

Research Design

This is an exploratory, descriptive study based on participatory methods that employed collaboration with key informants who are members of a Community Action Group (CAG). The idea for the study came out of suggestions from the CAG which began in 2003 in response to the problem of low college enrollment of Native Hawaiians and the increased rate of preventable chronic disease among Native Hawaiians. Focus groups data was used to gain knowledge about the community problems which are addressed in this section. This work is part of an on-going participatory relationship between the researcher and CAG. The CAG included Native Hawaiian college students (agents) (Rodgers & Knafl, 2000), cultural experts, and professional and lay persons in the fields of health and education. CAG members collaborated on culturally relevant approaches to improve the health of Native Hawaiians (Holter & Schwartz-Barcott, 1993; Valach, Young, & Lyman, 2002).
The works of a number of participatory researchers contributed to the overall design. First, the work of Rodgers and Knafl (2000) suggested that language is pivotal within participatory (enhancement/empowerment) research. Their work was informative in designing an appropriate approach to exploring the concept of healthy living in the Native Hawaiian context as experienced by young adult Native Hawaiian college students. The authors' emphasized that concepts are mirrors of reality enmeshed in words. As such, the role of the investigator is to facilitate dialogue to uncover cultural, social, and economic assumptions related to the concept under study, and to look at conditions that support and constrain those assumptions. Rodgers and Knafl (2000) recommend that: “The investigator should link with those for whom the concept has sufficient relevance” (p. 378).

Krueger and Casey (2000) offered clear steps to gaining access to the words of Native Hawaiians through the use of focus groups. Their guide to designing single-category focus group discussions supported the engagement of six to ten participants in dialogue to illuminate their words, meanings and referents related to healthy living, supports and barriers to healthy living, and recommendations to enhance healthy living. Provisions were made to hold five full-focus, mixed-gender, idea-generating group sessions to engage students in reciprocal, exploratory, dialogue with a moderator and other participants. Group discussions provide a space for students to share their views about healthy living as well as perceived supports and barriers to healthy living. Idea generating talks
can reveal students cognitive processes for healthy living which are comprised of attributes abstracted from reality, expressed in some form, and utilized for common purposes (Rogers & Knafl, 2000, p. 33).

**Sample**

*Community Action Group*

The research and members of a Community Action Group (CAG) worked through cycles of problem identification, planning, intervening, and evaluating to guide the study (Minkler & Wallerstein, 2003). Members of the CAG were either Native Hawaiian or had experience in tailoring services for Native Hawaiians. The CAG was made up of professionals and lay persons from health and education service groups including:

1. **Groups familiar with young adult Native Hawaiians**
   - Native Hawaiian college students at LCC
   - Native Hawaiian Scholars
   - Native Hawaiian elders (2 social workers and 1 physician)

2. **Groups with experience in tailoring services to Native Hawaiians**
   - Ke Ola Mamo: Native Hawaiian Health Care System
   - 'Imi Hale: Cancer Network
   - Alu Like, Inc.
   - Leeward Community College administrators
3. Groups with health experience in the Western context

- The National Cancer Institute’s Special Population Network (SPN) serving at-risk populations, representing six states (Texas, California, Mississippi, Alabama, Washington and Hawai’i)

- The American Cancer Society

Everyone on the CAG had an opportunity to provide information as a key informant to this study. Three members of the CAG were cultural leaders for whom the research topic had sufficient relevance to spark their interest (Rogers & Knafl, 2000). They invested significant time, wisdom and energy as authoritative cultural experts in a position to know the needs of the study population (Polit & Hungler, 1993). These cultural experts have personally influenced the life and education of the investigator and are also well respected within the Native Hawaiian community and beyond.

Focus Group Participants

A non-random, purposive, convenience sample of young adult Native Hawaiian college students was recruited for this study. Participants met the following criteria: 1) Native Hawaiian ancestry (Native Hawaiians are individuals who can trace an ancestor living in Hawai’i prior to 1778 when Captain Cook explored the islands for England); 2) resident of O’ahu, Hawai’i; 3) between the ages of 18-25 years; 4) enrolled in a community college; and 5) not currently enrolled in a health promotion program. The recruitment goal was to recruit 10 - 15 participants per session (Polit & Hungler, 1993) to achieve an attendance
count of 6 – 10 students per session. Three to five sessions were planned to reach thematic saturation (Krueger & Casey, 2000).

To recruit participants three Native Hawaiian students from the Ka ‘Aina ‘Ike Native Hawaiian Nutrition Project at Leeward Community College (LCC) collaborated with the researcher as agents. The student agents were trained by the investigator throughout the study to interface with the participants of the group. Participants were first contacted at one of several 10 – minute informational presentations conducted by student agents. The presentations were held at four community colleges in eight classes including Hawaiian Studies and Hawaiian Language courses. The classes were chosen because they were likely to have a diverse sampling of Native Hawaiian students. Presentations described the IRB-approved research purpose, focus group format, and location and inclusion criteria. The presentation was held at the end of the class period to avoid interrupting class time and so that students who preferred not to hear about the research project could be excused. Students who expressed an interest in the study were asked to refer other Native Hawaiian students who might be interested in the study. Student referrals could increase the number of students informed about the study through snowball sampling (Minkler & Wallerstein, 2003).

The second contact took place when students (n=55) called the investigator to find out more about the study. Responders were informed that the purpose of the study was to talk with groups of students about their ideas and
experiences, and opinions on the topic of healthy living. They were also told that 
information gained from the groups would be used to inform people who work 
with Native Hawaiians and are interested in what young adult Native Hawaiians 
have to say about the topic. The study process was reviewed including: group 
discussions to be held in a private room at Leeward Community College; planned 
for 6 – 10 male and female students; could last between 60-90 minutes per 
session; would be video and audio recorded; and stipend of $35 for time and 
travel would be paid.

Of the 55 students who met the inclusion criteria and expressed 
acceptance of the research elements twelve declined participation due to time 
constraints and travel difficulties. Forty-four students were asked to choose one 
of five sessions that were pre-arranged based on feedback from Ka 'Aina 'Ike 
agents who had ideas about college students scheduling preferences. Students 
were contacted a third and fourth time during two reminder calls. One call was 
made at one week and another call at one day prior to the scheduled session. A 
request was made to show up fifteen minutes early to meet with the investigator 
who would go over important information about the research, answer questions 
and help to complete the Internal Review Board (IRB) approved Informed 
Consent Agreement (Appendix A), if necessary.

Protection of Human Subjects

The study was submitted to the Native Hawaiian Human Subjects and 
University of Hawai‘i Human Subjects Committees for approval and was
approved by the Native Hawaiian Human Subjects Committee (Appendix B) and was given Exemption Status (Appendix C) by the University of Hawai'i Human Subjects Committee prior to the start of the study.

The investigator reviewed with each participant the Informed Consent Agreement covering the purpose of the study, possible risks and benefits of participating in the study, data transcription and analysis and the intended use of the data. Measures to safeguard participant anonymity were explained including the process of assigning each student a different coded identification number instead of using their names. They were told that extra measures would be taken to protect their privacy including: 1) the log book with their personal information kept in a locked drawer; 2) log book of coded identification numbers related to student information locked in a file drawer located in a second office; and 3) transcripts would be kept in a locked file drawer in a third office.

Students were informed that the sessions would be video and audio recorded for transcription and study purposes only and that persons not directly involved with the research would not have access to the recordings. Permission was obtained verbally and in writing from the student, allowing video and audio recording in a private recording studio. Students were informed of potential risks (which were minimal) and given contact numbers for the investigator's office and cellular phone, the Native Hawaiian Internal Review Board (IRB), and office and cellular contact information for a mental health Nurse Practitioner who agreed to provide counseling services to any student asking for help.
Focus Group Training and Setting

Training

The investigator and others involved in this study (3 student agents from the Ka ‘Aina ‘Ike project and the transcriber) received training in conducting focus groups during two 3-hour training sessions. Training was provided by ‘Imi Hale - Cancer Network, which is one of 18 Special Population Networks funded by the National Cancer Institute for purposes of reducing cancer disparities in minority Americans (National Cancer Institute, 1999; Braun, Tsark, Santos, Aitaoto, & Chong, in press).

Setting

The focus groups were conducted in 2005 at LCC which is located in rural west O’ahu where more than 70 percent (70%) of Native Hawaiians on O’ahu reside. Leeward Community College is one campus in a network of eleven campuses within the University of Hawai’i system and enrolls about 5,500 students per semester. Sessions were held in an air conditioned, sound-proof media production room void of windows.

Instrumentation

There were two components to the focus group measures. The first component was a self-administered Demographic Survey (Appendix D) that gathered information on age, gender, ethnicity, marital status, living arrangements, annual income, educational status and major, self-rated health, and amount of exercise per week. The second component was the focus group
questions, which were imbedded in the Focus Group Guide (Appendix E). The questions were developed in a collaborative process with CAG members.

Cultural Leadership

Cultural Leaders

The investigator worked with cultural leaders with respect for prescribed behaviors deeply rooted in the Hawaiian culture. Instead of scheduling an appointment with cultural experts to conduct formal 1:1 interviews, a request was made to visit with cultural experts. The reasoning is that asking for help is a disrespectful action that puts people in the position of having to say no if they are unable to help, which would cause them discomfort. Instead, the culturally prescribed action is to talk about the investigator's work from a matter of fact stance. If an elder is interested and willing and to help, he or she should have the privilege of offering assistance in whatever small or great way that is comfortable.

All three cultural leaders who were visited, readily offered their manawa (time) and 'ike (knowledge). Several contacts were made with two experts in the field of social work (2 meetings with one and 5 meetings with the other social worker). Constant contact was maintained with a Native Hawaiian physician during every step of this study. Although the investigator visited with these cultural treasures individually their contributions are valued in totality. They clarified and verified the investigator's assumptions related to aspects of traditional culture that are relevant and necessary in conducting studies with
Native Hawaiians, developing meaningful focus group questions and insights during data analysis.

Many contacts were made with all other community leaders. Communication with other members occurred during face to face settings, by phone conferencing, by email and by fax. Critiques from Native Hawaiian cultural leaders and other CAG members were used to develop a focus group guide (Appendix E) that explored the concept of physical activity and healthy living in both native and western contexts. The aim was to tailor an interview guide appropriate for the study topic by incorporating evidence-based approaches to physical activity and healthy living in non-Native Hawaiian populations with questions about Hawaiian cultural practices and values.

The finished guide contained three main topics: 1) Health perceptions and current physical activity behaviors (What does being healthy mean to you?); 2) Strategies of interest and cultural connections (What role do you think Native Hawaiian culture plays in being healthy and physically active?); and 3) Idea generation and strategies to increase physical activity (What would make it easier for you to be physically active?). Prompting questions were incorporated into the guide to steer the discussion without stifling spontaneity.

Focus Group Sessions

The fifth contact with students occurred students attended the sessions. They were met at a reception area where light refreshments were served. They met with the researcher individually or in pairs (friends), outside of the recording
studio. The study was explained again and permission was obtained verbally and in writing prior to asking students to complete a demographic survey.

The sessions started with letting the students know that there is no right or wrong answers to the questions, they could chose not to answer questions and they could leave if they felt uncomfortable. Writing tablets and pencils were provided in case a student wanted to share a comment but didn't feel like expressing a thought out loud. Participants were reminded to keep confidential what other participants talk about during the discussion. Each student was given an identification tag to coincide with their seating position around the table (numbering 1 – 10). The tags were necessary to protect the subjects' anonymity and allow the investigator to call on students by number.

In the first session participants were seated in two 5 seat rows, one behind the other. The arrangement prevented students from seeing each others' facial expressions and physical gestures thereby limiting the flow of spontaneous communication. The seating arrangement was changed for all other sessions to allow students to face each other as a group. Students were asked to speak one at a time so that everyone in the room could hear what was being said and they were also asked to turn off cellular phones and pagers.

Each participant was fitted with a lapel microphone for audio recording. Three LCC media production faculty members operated all audio and video recording equipment from a control room. Only the participants, two Ka ‘Aina ‘Ike student agents, and the investigator were in the room during the sessions. The
investigator followed the semi-structured guide with open-ended questions and prompts to engage students in the discussion.

Student agents recorded important comments as 'field notes' on a flip chart noting the participant's assigned seating number. Use of a flip chart, managed by student agents, allowed the researcher to concentrate on keeping the conversation active and spontaneous. Participants were told that the flip chart notes would help the moderator to 'see' a summary of the discussion and help to verify key points before moving on to another topic. At the end of each session students were asked if they were willing to participate in a session to go over the study findings. Most students indicated their interest and notation was made for later use.

The researcher and agents debriefed immediately after each session adding insights about instances of group agreement or disagreement (nodding yes or no), emotional interactions, and silence to the flip chart notes. Remarks were also noted about the usefulness of the guide to elicit answers to the research questions. These field notes were recorded by the researcher. Insights were used to improve future sessions.

Although five sessions were planned, data from only four sessions were used to obtain a sufficient saturation point. The last planned session was cancelled. None of the six students who had signed up for the fifth session expressed disappointment as it was exam week.
Data Analysis

Demographic data were analyzed in Excel. Video and audio recordings were used to produce an unabridged, verbatim transcription for analysis. Participants were identified by their seating number to maintain anonymity and the moderator was identified as “F” for facilitator. Video tapes were also used to clarify areas difficult to hear on the audio tape. Information from flip charts and field notes were compiled and added to the transcripts.

The process of data analysis suggested by Krueger and Casey (2000) was followed to analyze all qualitative data. The plan called for a “systematic, sequential, verifiable, and continuous” (p. 128) process of analysis to avoid overlooking important factors. The goal was not to arrive at a singular meaning but to uncover the range and scope of the conceptual meaning of health according to the participants (Rodgers & Knafl, 2000).

The researcher met weekly with a peer mentor who has a doctorate in public health and many years of experience working with Pacific Islanders and conducting qualitative studies using focus groups. The transcripts were reviewed separately by the researcher of this study and the peer mentor, one set at a time, within two weeks after each session. Personal thoughts were listed in the left margin of the transcript and potential themes in the right margin.

During the first meeting the researcher and peer mentor listed on a blackboard all the significant comments that they had identified individually, before the meeting. The mentor challenged the researcher on several occasions
questioning personal bias and pointing out the researcher's tendency to get excited about extraneous data and stray from the research purpose. Careful to avoid mistakes and bias the analysis process adhered to cycles of abstracting words, ideas and acts while constantly comparing similarities and differences always paying attention to the critical qualities of the data (Strauss & Corbin, 1998). Differences were discussed and instances of investigator bias or personal experience were explored. All subsequent notes that showed bias were excluded from the findings.

Subsequent meetings were held to code the data. Initial codes were named either because the text represented an image or because a participant's response provided the words. Discussions focused on what the words were starting to reveal about the perceptions of young adult Native Hawaiians regarding physical fitness and healthy living. Codes were condensed and expanded, sorted and subdivided or eliminated. Common ideas were grouped into meaningful categories to reflect the participants' world view. Categories were qualified by specifying its properties and dimensions to identify patterns. The investigator looked deeper into the data, highlighting quotes that serve as evidence of variations within larger themes that connect codes constantly memoing thoughts (Strauss & Corbin, 1998).

Several strategies for managing the data were considered and a consensus was reached to pattern a structural framework or codebook to plot
categories and subcategories using the long table method. The long table template incorporated a large (3' X 3') computer generated grid (see Table 2).

Table 2.

Long Table Template

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<td>43</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>46</td>
<td>47</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>50</td>
<td>51</td>
<td>52</td>
<td>53</td>
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<tr>
<td>16</td>
<td></td>
<td>54</td>
<td>55</td>
<td>56</td>
<td>57</td>
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<tr>
<td>17</td>
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<td>58</td>
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<td>61</td>
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<td></td>
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<tr>
<td>19</td>
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<td>78</td>
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<td>80</td>
<td>81</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>82</td>
<td>83</td>
<td>84</td>
<td>85</td>
</tr>
</tbody>
</table>
The grid was designed to allow anyone analyzing the data to cross reference a theme and participant, and then track responses by page number (see Table 3). For example a reviewer could verify the steps of the researcher by seeing that a participant in group one (G1) seated in position number one (P1) made a comment that supported theme number one (Theme 1) as identified on page 12 (#12).

Table 3.

<table>
<thead>
<tr>
<th>Codebook Visual Tool Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1P1</td>
</tr>
<tr>
<td>Theme 1</td>
</tr>
<tr>
<td>Theme 2</td>
</tr>
<tr>
<td>Theme 3</td>
</tr>
</tbody>
</table>

The code book was designed to enhanced visual assessment of frequency (how often something is said) and extensiveness of a comment (how many participants said the same thing). Specificity was determined not by the frequency or extensiveness of participants' responses but by the emphasis and detail of a specific response to a specific question. The second round of analysis
tended to the task of coding by cross cutting back and forth to understand how the patterns of themes either helped or failed to answer the research questions.

External Audit

The researcher met with an external auditor who agreed to contribute expertise to this research. Critical factors were discussed: the purpose of the study; the methods and procedures for data collection; the description of the sample; and the plan for data analysis, before research materials were shared. Copies of the transcripts (the discussion guide was embedded in the transcripts) and codebook was provided to the external auditor who is a researcher employed with 'Imi Hale: Cancer Network and has experience in qualitative research.

Combined, the researcher, mentor, and auditor formed an analysis team. The auditor analyzed the data independently before joining the team. Together, the team was immersed in a study of the words used by respondents. The words were coded and grouped by phenomena, properties and dimensions (Strauss & Corbin, 1998). Data triangulation occurred through the process of constant comparison, grouping categories and subcategories, and naming the themes, while moving back and forth through the transcripts. The themes were analyzed for how they relate to each other, the similarities and differences, and their usefulness to answer the research questions. The auditor's findings and notations were compared with the researcher's findings and the mentor's findings and notations were made to show how all three findings related. The themes
were grouped further as the researcher developed a deeper understanding of the data.

Notations were transferred to a master codebook indicating whether one, two, or all three researchers had identified the same comment in the transcript as significant to a specific theme. There were instances when all three members pulled out the same response but attributed the response to a different theme. There were also instances where only one researcher identified a response but was adamant that the response was significant to the research purpose. In every case, the researchers talked extensively about the action until a consensus was reached to establish dependability in data analysis and coding. Color coding was used in the codebook to identify instances where two or more of the researchers identified the same comment. The color coding provided a significant visual reference tool.

Democratic Validity

Democratic validity honors the perspectives of all parties who have a stake in the issue under study (Herr & Anderson, 2005). The investigator met many times with members of the CAG to keep them informed of unfolding knowledge, and to be informed by the CAG.

Trustworthiness

Trustworthiness was guarded throughout this study through action cycles including: debriefing with the research agents immediately after each discussion group; using video tapes and field notes to verify transcripts; individual and
combined data analysis by the researcher, mentor, and auditor and, triangulation of analysis by the research team. The action cycle was repeated with the start of each focus group.

A brief summary of the process was written after each complete cycle using methodological notes (Asking what I can do to improve the quality of the research) and conceptual notes (Asking if the data captured phenomena that explain healthy living in the Native Hawaiian context and if further data was needed). Lessons learned were used to improve the research cycle and prepare the results. Comparability of findings (trustworthiness) is more valuable in this naturalistic study than positivist validity (Guba & Lincoln, 1989; Herr & Anderson, 2005). Trustworthiness was demonstrated when the researcher's interpretations of the data were verified by those who provided the data.

Participant Verification

Participant verification was done twice during the study. First, the investigator continually verified comments made by participants during focus groups, by asking the respondent for verification and then asking the entire group if anyone disagreed, agreed, or wanted to add to the response. Responses that weren't challenged were accepted at face value. Following the discussion a summary of key findings was made and again participants were asked if they wanted to add any further comment.

Secondly, students were contacted two months after the data was analyzed and asked to participate in an informal discussion to hear the findings of the
research. Eleven students were reached and five agreed to meet with the investigator (two from Group 1, and one each from the remaining 3 groups). Three students showed up for the meeting. The students actively engaged in the discussion. Students agreed with the findings and shared their thoughts about being involved in the verification process (expressing value for inclusion and verification). None of the students challenged the findings.
CHAPTER 4
RESULTS

Chapter four presents the results of this study describing the perceptions of Native Hawaiians related to physical fitness and healthy living. This chapter includes quantitative descriptions of the sample and demographic characteristics with comparisons to the LCC student population. Qualitative descriptions of the themes, categories and subcategories identified during analysis of the data are presented.

Demographic Characteristics of the Sample

Thirty-two students who self-identified as Native Hawaiian participated in the study. Demographic data (see Table 4) collected in the study covers the following: participants' age, gender, marital status, parenting a child, receiving public assistance, employed, and educational status in college (based on semester credits earned), college major, living arrangements and number of people living in a household, residential district of primary residence, and annual income.

Of the 32 participants who participated in the study, 19 (59%) were between the ages of 18-20. Female students were more likely to respond to the invitation to participate in the study and represented two-thirds of the students (63%). Three students in this group (9%) reported having at least one child and only two students (6%) were married or living with a significant other. Only five (16%) of the students were living with just one other person or independently and
nearly half (47%) of the students in the study were living in a household with five or more people. Nineteen students (59%) were working either full or part-time. Of this group, sixteen (50%) were attending college. Ten students (31%) were receiving some sort of financial assistance. The majority of students who volunteered to participate in this health based study were established college students (nine had less than 30 college credits and ten completed more than 30 credits). Only twenty-five percent of the students who agreed to participate were seeking a degree in a health profession. Sixteen percent of the students were seeking vocational training and six (19%) of the students were undecided about a college major. The study findings are consistent with data reporting poor enrollment of Native Hawaiians in math and science fields (State of Hawaii Data Book, 2000). According to University of Hawaii data for the 2004 fall semester (UH MAPS, Fall 04 Enrollment Report) the degree path of the LCC student population represents a higher enrollment of students in general education and pre-professional careers with 65.0% enrollment compared to only 50% of the study sample; and lower enrollment in Vocational Career & Technical trades, 15.3%; and significantly fewer students were unclassified (6.3%). University reports revealed that there was no data for 13.4% of the LCC student population.

Annual estimated household income level of the participants were reported as follows: eight students less than $5,000; one student between $10,000-$15,000; two students between $15,000-$25,000; four students
between $25,000-$50,000; and two students more than $50,000. Nearly half (47%) of the students responded *don't know* or did not respond at all.

Most of the students (78%) were residents of the rural Wai'anae (Leeward) Coast, which is home to the highest population of Native Hawaiians on O'ahu. Few students (22%) commuted to the study site from other regions of the island. Other regions experience a greater western influence than the Wai'anae Coast. Students who commuted from other areas to LCC included four (13%) from the central Honolulu region and three (9%) from the Ko'olau (Windward) Coast.

Table 4.
Demographic Characteristics of Focus Group Participants

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n=32</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=32)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-20</td>
<td>19</td>
<td>59%</td>
</tr>
<tr>
<td>21-25</td>
<td>13</td>
<td>41%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>63%</td>
</tr>
<tr>
<td>Male</td>
<td>12</td>
<td>37%</td>
</tr>
</tbody>
</table>
Table 4 (continued).

Demographic Characteristics of Focus Group Participants (n=32)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n=32</th>
<th>Values (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>30</td>
<td>94%</td>
</tr>
<tr>
<td>Married or living with significant other</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>Living arrangements and number in household</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lives alone</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>2 in the household</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>3-4 in the household</td>
<td>11</td>
<td>34%</td>
</tr>
<tr>
<td>5-7 in the household</td>
<td>9</td>
<td>28%</td>
</tr>
<tr>
<td>8+ in the household</td>
<td>6</td>
<td>19%</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Receiving public assistance</td>
<td>10</td>
<td>31%</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just completed HS and enrolling in college</td>
<td>13</td>
<td>41%</td>
</tr>
<tr>
<td>Less than 30 college credits</td>
<td>9</td>
<td>28%</td>
</tr>
</tbody>
</table>
Table 4 (continued).

Demographic Characteristics of Focus Group Participants (n=32)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n=32</th>
<th>Values (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational status (continued).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 30 college credits</td>
<td>10</td>
<td>31%</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$5,000</td>
<td>8</td>
<td>25%</td>
</tr>
<tr>
<td>$10,000-$15,000</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>$5,000-$25,000</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>$25,000-$50,000</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>$50,000+</td>
<td>2</td>
<td>6%</td>
</tr>
</tbody>
</table>

Self-Rated Health and Exercise Frequency Characteristics

Students were asked to complete a quantitatively based self assessment of their exercise behaviors and health status. Self-rated health and exercise characteristics of the sample are shown in Table 5. Many students asked for clarification of the terms used on the demographic form to assess "Self-rated health" (Very unhealthy, somewhat unhealthy, unsure, somewhat healthy and very healthy).
Students who asked questions were informed that the group would be talking about health in the focus groups. To avoid interfering with study results, students were advised to answer the questions to the best of their ability. With this information, two-thirds of the students (66%) rated themselves as "somewhat healthy" and two students (6%) were unable to rate their own health based on the question structure and instructions. Both students selected a "don't know" response indicating that they were unsure of how to rate themselves on a health continuum scale. Only six (19%) of the Native Hawaiian students in this study self-rated themselves as "very healthy".

Table 5.

Self-Rated Health and Exercise Frequency Characteristics (n=32)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n=32</th>
<th>Values (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-rated health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very unhealthy</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Somewhat unhealthy</td>
<td>3</td>
<td>9%</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>Somewhat healthy</td>
<td>21</td>
<td>66%</td>
</tr>
<tr>
<td>Very healthy</td>
<td>6</td>
<td>19%</td>
</tr>
</tbody>
</table>
Table 5 (continued).

Self-Rated Health and Exercise Frequency Characteristics (n=32)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N=32</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td># of days/week of exercise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>1-2</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>3-4</td>
<td>11</td>
<td>34%</td>
</tr>
<tr>
<td>5-7</td>
<td>7</td>
<td>22%</td>
</tr>
<tr>
<td>Don't know</td>
<td>9</td>
<td>28%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># minutes exercising per day</th>
<th>N=32</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>1-2</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>30-59</td>
<td>9</td>
<td>28%</td>
</tr>
<tr>
<td>60 or more</td>
<td>10</td>
<td>31%</td>
</tr>
<tr>
<td>Don't know</td>
<td>8</td>
<td>25%</td>
</tr>
</tbody>
</table>

National recommendations for physical activity advise either 30 minutes of moderate-intensity activity on at least 5 days each week or 20 minutes of vigorous-intensity physical activity on at least 3 days each week (MMWR, October 26, 2001). According to the Self-Rated Health and Exercise Frequency Questionnaire, seven students (22%) self-reported that they were meeting recommendation to engage in physical activity on at least 5 days each week for optimal health protection. Eleven students (34%) met national recommendations
to engage in a minimum amount of physical exercise on at least three days each week. Half (16/32) of the students were not meeting minimum recommendations for physical activity.

Students also self-reported their exercise habits pertaining to the amount of time they spent engaged in exercise per exercise event. More than half of the students were meeting minimum recommendations to exercise for at least 30 minutes for healthful benefits. The findings also show that more than half of the students (19/32) were meeting minimum requirements.

Focus Groups

Four mixed gender groups with varying numbers of participants were held before thematic saturation was reached. Student participation in a specific group was completely based on student preference to choose any one of 5 prescheduled groups. Numbers of students per group occurred as follows: Six participants (2 female, 4 male) with an average age of 22 years attended the first session; nine students (5 female, 4 male) with an average age of 19 years attended the second session; eight students (7 female, 1 male) with an average age of 19 years attended the third session; and nine students (6 female, 3 male) with an average age of 21 years attended the fourth session.

Themes and Subthemes

The results of the focus group data analysis answered the three research questions addressed in this study:

1) What do young adult Native Hawaiians think about health?
2) What do young adult Native Hawaiians perceive as benefits and barriers to healthy living?

3) What kinds of services, programs or environmental supports would young adult Native Hawaiians recommend?

Four main themes immerged and were named either because the text represented an image or because a participant's response provided the words. The order of the subthemes was naturally influenced by the sequence in which the questions were asked during the focus groups. The subthemes (see Table 6) were grouped with the following themes: 1) Ideal health; 2) Purposeful living; 3) Barriers to healthy living; and 4) Ideas for programming. Students' comments were coded in the order that they were identified in the transcripts and grouped based on similarities.
<table>
<thead>
<tr>
<th>Subtheme no.</th>
<th>Subthemes of the ideal health theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Looking good, buff, healthy.</td>
</tr>
<tr>
<td>2</td>
<td>Healthy diet, with greens, low carbohydrates, etc.</td>
</tr>
<tr>
<td>3</td>
<td>Active, exercising.</td>
</tr>
<tr>
<td>4</td>
<td>Having balance, making balanced choices.</td>
</tr>
<tr>
<td>5</td>
<td>Healthy self-identity (grounded in NH culture or otherwise).</td>
</tr>
<tr>
<td>6</td>
<td>Happy spirit.</td>
</tr>
<tr>
<td>7</td>
<td>Don't smoke.</td>
</tr>
<tr>
<td>8</td>
<td>Make small changes.</td>
</tr>
</tbody>
</table>

Subthemes of the Purposeful Living theme

<table>
<thead>
<tr>
<th>Subtheme no.</th>
<th>Subthemes of the Purposeful Living theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Critical incident with self or family.</td>
</tr>
<tr>
<td>2</td>
<td>Family role model, lead person, or family support.</td>
</tr>
<tr>
<td>3</td>
<td>Social support from peer group, partner, or new/old friends.</td>
</tr>
<tr>
<td>4</td>
<td>Routine that includes time for physical activity and/or good diet choices.</td>
</tr>
<tr>
<td>5</td>
<td>Positive attitude toward health, personal accountability, self-motivated.</td>
</tr>
<tr>
<td>6</td>
<td>Knowing about ingredients, portion sizes, energy balance.</td>
</tr>
<tr>
<td>7</td>
<td>Free activities including going to the beach and running.</td>
</tr>
<tr>
<td>8</td>
<td>Physically demanding work.</td>
</tr>
<tr>
<td>9</td>
<td>Being self-directed, having balance, making balanced choices.</td>
</tr>
<tr>
<td>Subtheme</td>
<td>Subthemes of the barriers to healthy living theme</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Perceived invincibility of youth, it won’t happen to me, problem not imminent, diet/exercise not important when young.</td>
</tr>
<tr>
<td>2</td>
<td>Lack of awareness about energy balance.</td>
</tr>
<tr>
<td>3</td>
<td>Lack of time for self, heavy work schedule, too busy</td>
</tr>
<tr>
<td>4</td>
<td>Lazy, would rather do something else or eat something else, lack of motivation.</td>
</tr>
<tr>
<td>5</td>
<td>Lack of access, lack of transportation, inconvenient.</td>
</tr>
<tr>
<td>6</td>
<td>Home issues.</td>
</tr>
<tr>
<td>7</td>
<td>Health issues, surgery, injury, illness.</td>
</tr>
<tr>
<td>8</td>
<td>Perception that you can eat anything as long as you exercise a lot.</td>
</tr>
<tr>
<td>9</td>
<td>Preference for cruising and feeling good now, even if this cuts life short. Who wants a long life anyway?</td>
</tr>
<tr>
<td>10</td>
<td>Youth in transition, need to develop new routines between college and work, etc.</td>
</tr>
<tr>
<td>11</td>
<td>Being healthy is costly, healthy foods too costly, joining spa is costly.</td>
</tr>
<tr>
<td>12</td>
<td>Good attitude, but find self making excuses.</td>
</tr>
<tr>
<td>13</td>
<td>Lack of critical incident in self/family member.</td>
</tr>
</tbody>
</table>
Table 6 (continued).

Coding Themes and Subthemes

<table>
<thead>
<tr>
<th>Subtheme no.</th>
<th>Subthemes of the ideas for programming theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Provide information to increase knowledge of links among diet, exercise, lifestyle, disease, longevity.</td>
</tr>
<tr>
<td>2</td>
<td>Incorporate info on NH heritage, health, diet, exercise options (like farming, running on beach).</td>
</tr>
<tr>
<td>3</td>
<td>Incorporate active learning, e.g., cooking and exercise with trainer.</td>
</tr>
<tr>
<td>4</td>
<td>Incorporate field experiences.</td>
</tr>
<tr>
<td>5</td>
<td>Encourage partnering and building social support networks.</td>
</tr>
<tr>
<td>6</td>
<td>Encourage students to educate/involve parents and other family.</td>
</tr>
<tr>
<td>7</td>
<td>Program must be long-term and not a one-time approach.</td>
</tr>
<tr>
<td>8</td>
<td>Have reflection through journals, group discussion with instructors.</td>
</tr>
<tr>
<td>9</td>
<td>Advertise in newspaper, TV, radio, and celebrity endorsements.</td>
</tr>
<tr>
<td>10</td>
<td>Recruit in community and Native Hawaiian Health care system.</td>
</tr>
<tr>
<td>11</td>
<td>Recruit in cultural events including paddling and hula.</td>
</tr>
<tr>
<td>12</td>
<td>Depend on word-of-mouth, and snowball recruitment.</td>
</tr>
<tr>
<td>13</td>
<td>Target lazy people.</td>
</tr>
<tr>
<td>14</td>
<td>Target only those who volunteer and want to make a change.</td>
</tr>
<tr>
<td>15</td>
<td>Offer course for credit, tuition waivers and free stuff.</td>
</tr>
</tbody>
</table>
During data analysis the subcategories were condensed and regrouped based on similarities identified during the triangulation process. Table 7 shows all subthemes by identification number based on the initial analysis and presents where the subthemes were condensed and relabeled for each of the four major themes.

<table>
<thead>
<tr>
<th>Sub-theme numbers</th>
<th>Title of condensed subthemes</th>
<th># of students n=32</th>
<th>% students</th>
<th># of groups n=4</th>
<th>% groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,4,5</td>
<td>Being active</td>
<td>17</td>
<td>53.13%</td>
<td>4</td>
<td>100.00%</td>
</tr>
<tr>
<td>1,6,7</td>
<td>Healthy self identity</td>
<td>9</td>
<td>28.13%</td>
<td>3</td>
<td>75.00%</td>
</tr>
<tr>
<td>2</td>
<td>Healthy diet</td>
<td>7</td>
<td>21.88%</td>
<td>3</td>
<td>75.00%</td>
</tr>
<tr>
<td>8</td>
<td>Don’t smoke</td>
<td>1</td>
<td>3.13%</td>
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Table 7. Condensed Subthemes

Theme: Ideal health

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<td>8</td>
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### Table 7 (continued).

#### Condensed Subthemes

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#### Theme: Purposeful living

#### Theme: Barriers to healthy living

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<tr>
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<td>6 Being Americanized</td>
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Table 7 (continued).

Condensed Subthemes

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</table>

Theme: Barriers to healthy living (continued)

Theme: Recommendations for programming

| 2                  | Incorporate Native Hawaiian | 20                  | 62.50%     | 4              | 100.00%  |

| 7,16,17            | Incentives                  | 19                  | 59.38%     | 4              | 100.00%  |
| 5,6                | Social support              | 16                  | 50.00%     | 3              | 75.00%   |
| 1,3,4,8            | Active learning             | 14                  | 43.75%     | 4              | 100.00%  |
Table 7 (continued).

Condensed Subthemes

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<td>Promotion</td>
<td>12</td>
<td>37.50%</td>
<td>3</td>
<td>75.00%</td>
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</tbody>
</table>

Qualitative interpretation of the focus group findings is presented below.

**Ideal Health**

Four subthemes were identified in the *Ideal health* theme including: being active, healthy self identity, healthy diet, and don't smoke.

*Being active.* Seventeen students spread across all groups talked about health in terms similar to the popular *just do it* fitness slogan. Most participants described being active, attending to purposeful responsibilities of daily living, as an acceptable approach to physical fitness. Students described domestic responsibilities saying: "Like I'll be watching the kids, or I'll take them out, I'm constantly moving around everyday" (G3P6#4), and "Taking care of kids" and "Babysitting or like playing basketball at your house or walking to the store" (G3P..."
Other students, while agreeing that health is a matter of being active, held the view that fitness is more a matter of intentional planning than a matter of daily living saying: "I think you should do more. Like prep school, like exercises and stuff. Not just like daily, day to day activities. Like just exercising period" (G3P3#5).

Healthy self identity. Nine students in three groups viewed having a healthy self identity as being grounded in mental, cultural and spiritual identity: “a lot of it is mentally, I gotta like prepare myself mentally” (G4P3#6). Another student talked about the transition to modernization on health identity saying: “- a lot of our Native Hawaiian younger generation there are some of us who loose touch with our... I think if you do some kind of active (Native Hawaiian) program it grounds you back home. It makes you healthier, like conscious healthy, or identity healthier, or spiritually healthier” (G1P3#6). This student conveyed a perception that a reverse transition could ground you back home in a healthy self identity. The subtheme healthy spirit identifies the idea that for one student, health is a matter of being “spiritually healthy” (G1P3#6) and for another student, physical fitness “uplifts your spirit” (G1P3#4).

Healthy diet. Nine students in three groups expressed their view of ideal health in terms of having a healthy diet and exerting physical effort to produce healthy food. When they talked about diet they compared their dietary habits to their ancestors:
“Like in the olden days they picked their food. They played all the sports. No T.V., nothing, cause everything was off the land and ocean and they're active and stuff and now there's like game boy and T.V. and radio and stuff like that”. “Now days, we go to the store and buy it. We don't raise all our food”. “… and the food, too, like it (was) all healthy and stuff and now it's got fast food and oil and stuff” (G3P5 and 7#12).

Students also thought that diet was more important than exercise “… both (are) equal but diet more important cause without a healthy lifestyle and eating you won’t have strength (to) do your exercise and all” (G3P4#18). The majority of students expressed a view that diet is important. It was culturally significant that students thought that healthy diet is related to where food comes from and how it's produced.

Don’t smoke. Surprisingly, in spite of the saturation of media markets with messages to quit smoking, students in this study spoke the least of this idea. Only one person thought that ideal health could be achieved if you don’t smoke.

Purposeful Living

The subthemes identified in the Purposeful living theme included: Being self-directed, free activities, healthy routine, positive attitude, knowledge and awareness and social support.

Being self-directed. Students were asked “What are things that Native Hawaiians can do to be healthy? Two thirds (20) of all students across all groups believed that being healthy is a matter of having purpose. Students expressed
their belief that doing things to be healthy is something that people are either interested in or are not interested in. And, if they are interested and choose to be healthy, they should purposefully balance out their eating and exercise habits. The view of having purpose was evident in the following commentary:

"I just think it basically boils down to 'do you want to live a long life or don’t you'? ... If you’re going to eat whatever you want make sure that you balance it out with some things, exercise, different things like that. I mean it’s just a matter of knowing if you want to live long or if you don’t. It’s basically what it boils down to" (G1P1#3).

Also identified as significant to being self-directed was having balance and making small changes. These subthemes entail the need for decision making and choice. The subtheme, having balance, relates to making a decision to live a balanced lifestyle: “It all ties into being healthy and making the choice to exercise and actually make an effort to do that, to be healthy, to eat right” ((G1P4#3); and also making a decision to be productive: “I’m constantly always trying to get myself to walk around and do something productive so I’m not always sitting” (G4P1#8). The subtheme, making small changes, was evident in the following comments: “I walk to work now” (G4P5#30) and “I think just as long as you do something during the day ... I don’t know, just anything.” (G3P8#4).

Free activities. Free Activities were talked about most often as a support to healthy living. Eighteen people in four groups mentioned free activities. Students described activities unique to their contemporary island lifestyle as Hawaiians
saying: “Just go to the beach. It’s free” and “You can go running. You don’t have to pay”. (G1P3& 5#4) Students named a variety of free activities that they considered to be health protective including: “I just want to dance hula and keep on dancing hula” (G3P3#10); and “Like playing sports like football or going surfing or jogging” (G3P1#3).

Healthful routines. Many students (13) in the study across three groups talked about supports to healthy living and physical fitness in terms of fitting activities into their daily routine: “Whenever we have a long enough break we work out” (G1P1#4). They also talked about taking opportunities: “I think just as long as you do something during the day, just anything” (G3P8#4), and the talk about using time wisely: “My idea is just not laying around the house, ... like go out and walk on the beach or go running around” (G4P1#5). Two subcategories emerged: having a physically demanding job, was evident in comments by students expressing the importance of having a routine that includes time for ‘getting physical activity’ as part of a physically demanding job and lifestyle: “You tie it into work. You know you’re getting paid and you’re getting exercise” (G1P4#5); and another student commented: “I think the physical labor it ties in ...I’m up and down ladders constantly” (G1P6#5). Students also described physically demanding routines that span from job to home as evident in this response: “Its mostly work and then going home to work - so about 5-6 hours a day”. (G4P4#7), for another student, a healthy routine is a matter of doing “… a man’s job” (G1P4#6). The second subtheme, good diet choices, was identified by
the comment: "Try to get good greens and cut back on the carbs" (G1P3#2), and more simply stated: "diets important" (G1P3#2).

Positive attitude. Nine students across three groups talked about health ideas that were categorized as positive attitude. Two subcategories supporting health protective attitudes included: 1) accountability; and 2) self-motivation. Accountability was evident in the comment “You can take these preventative steps to sort of avoid it or reduce your chances of getting it” (G1P3#1); and “Cause, like if you exercise you can maintain your immune system like keeps your body healthy in working condition” (G3P3#7). The subtheme, Self-Motivation, was exposed in the comment: “I think physical activity is just moving around” (G3P5#3); and for two students a positive attitude was supported by a motivation to have a good personal appearance. According to these students “...To tell you the truth, people our age, it's how you look” (G3P3#7), “just look in the mirror” (G1P3#2).

Knowledge and awareness. Fewer people (6 in 3 groups) talked about the impact of food to health. Students addressed the concept of portion sizes saying “... it's a simple thing, quantities of rice, ... we would eat big portions, but now maybe a spoonful or less” (G1P1#1). One student also addressed the idea of paying attention to ingredient content: “When I go shopping by myself at the store, I look for the sugar content” (G1P4#1).

Social support. Six students in two groups viewed family and social supports as important to healthy living. A couple of subthemes emerged: 1) the
galvanizing critical incident was experienced through the diagnosis of an illness (with self or significant other) which resulted in someone taking on the responsibility of a role model: "My mother has diabetes, she was diagnosed last year. So (my father) started to work out and eat healthier" (G1P1p1). The subtheme, family support, was identified by these comments: "Dad's like that but I keep telling him that he has to start taking care of himself" (G2P1#1); and "My dad is always like pushing me, like you should do this, you should do that... cause their concerned, they're helping me" (G3P8#8). Students also talked about social supports in terms of acting as a role: "I was diagnosed with cancer... I just took my life and rearranged it and did things so I could have a healthy life" (G1P5#2).

Barriers to Healthy Living

Seven subthemes were identified within the barriers to healthy living domain: Lack of access, lack of time, laziness, lack of critical incident, being Americanized, transition to adulthood, and invincibility of youth.

Lack of access. It was of no surprise to find that nearly half (15) of all the participants across all groups talked about the multiple demands on their busy lives and how those demands hinder access to healthy living in several ways. A common barrier for this study population was transportation as found in this statement: "Mom has a car, my Dad has his truck, and I don't have anyway of getting around" (G3P6#9). Fifteen students in four groups expressed lack of access as a barrier to healthy living. Barriers to healthy living were also identified
in two subthemes. First, the subtheme, inconvenience, was expressed in reference to location. The inconvenience of location was made evident by the comment: "It depends if it's far you know, I mean some people don't want to go out... people are so interested until they find out where it is" (G3P4#23); another student believed that location can be a barrier in his response: "Location. It depends if it's at just one spot that's kind of far" (G4P9#12). A student in another group also expressed the concept of inconvenience as a barrier to healthy living saying: "Nobody wants to inconvenience themselves to go to the spa" (G1P4#5).

Second, the subtheme, cost, was emphasized as a barrier to healthy living by the comment: "It just seems that, supposedly, healthier foods just seems to cost more" (G1P1#3).

Lack of time. Students viewed lack of time as a barrier to healthy living. This subtheme was expressed by twelve students in four groups who talked about: 1) lack of time which was described as having too many demands on personal time:

"Because we're always doing, gotta do this, gotta do this, gotta do this, and we never really take the time to think about yourself and what you need to do for yourself. Because we're so young we think whatever, we're young, we're healthy. We can do whatever we want because we don't really take the time to think about things" (G1P5#4),
and, 2) heavy schedule, which was expressed as demands related to issues at home and having a busy schedule: “Everyone else is so busy on their agendas, their lives and their families” (G1P3#5)

Laziness: The theme, laziness, rang dominant throughout all groups (12 participants in 4 groups). Students talked about laziness in terms of not making a health commitment: “I have 1,000 channels of cable, I’d rather watch that” (G1P4#4), and in terms of not sticking to a health commitment: “Some people, they’ll start to exercise then eventually it cuts down” (G2P7#4). Another student specifically admitted: “It’s just because I’m lazy” (G3P8#6). The subtheme, making excuses, was embedded in the comment: “It would be kinda hard though after work, come home all tired and then go to practice” (G4P3#11).

Lack of a critical incident. Several participants (9 in 2 groups) talked about the lack of a critical incident in self or a family member as found in the statement: “Not really taking a really strong active role because it probably hasn’t hit our family hard ... so it’s not staring me in the face like it’s an eminent problem” (G1P3#2).

Being Americanized. The subtheme, being Americanized, was addressed by three students in three groups. One student specifically commented: “perhaps over the years we become more Americanized or sucked into the mainstream culture” (G1P3#6). The concept of being Americanized was also expressed in terms of modern times as found in the following comment: “I think like modern times affects what you could do, like realistically, because people live on fast
food now, everybody has money. Back then, they don't pay money, they grow their own thing right” (G3P6#15). Another student addressed the concept of being Americanized emphasizing a strong desire to perpetuate Native Hawaiian cultural practices through future generations as apparent in the statement:

“...the morals, values and kuleana (responsibility) to instill in him (my son) all this type of information about our people, anything possible about the Hawaiian culture before it be westernized, I'm trying to give that to him” (G4P7#18).

Transitioning to adulthood. Few students (3 in 2 groups) talked about the period of transition when young adults need to develop new routines between college and work. One student expressed difficulty in trying to balance home life, work and college: “Like having home issues to deal with when you're at home and working rather than when you're at school” (G1P3#5). Another student directly addressed the experience of having access to a gym and being physically active during the high school years as found in the following comment: I used to use the gym at high school. I think that was better” (G1P6#6).

Invincibility of youth. Students from only one group specifically made comments that support the concept of invincibility of youth. However, these students said it exactly: “...you also have the mentality you're young and it's not going to happen to me yet” (G1P3#2); and “I don't think when you're young, I don't think diet is that important” (G1P2#3).
Ideas for Programming

Five subthemes were identified within the *ideas for programming* theme including: Incorporate Native Hawaiian values, incentives, social supports, active learning, and promotion.

*Incorporate Native Hawaiian.* The recommendation to *incorporate Native Hawaiian values* was voiced more often than any other subtheme. Two-thirds of the participants (20 in 4 groups) suggested incorporating Native Hawaiian cultural heritage, supports, health, diet and exercise activities (farming, hula, canoe paddling and running on the beach). "... the culture is dying, that’s why I think culture is important ...so if we perpetuate it ourselves, as Hawaiians, then it’s going to make a difference” (G3P5#12). Students also specifically asked for Native Hawaiian leadership saying:

“I think if they were Hawaiian you could, we could, grasp way more of the culture from them if they were Hawaiians then a non-Hawaiian trying to teach us something that they have no idea what’s going on” (G4P1#21).

*Incentives.* When asked to share their ideas about supports to healthy living (19 students in 4 groups) engaged in exploration of the idea of *incentives.* Some students talked about tangible incentives as evident in the comment: “You could get a prize, maybe cash” (G4P7#27). Others suggested incentives that benefit the group “Sports on campus, definitely” (G3P8#27). And, others rejected the idea of incentives saying “But then it all boils down to materialistic things you
know. So, if you're going to do it, do it because you want to, not because you're going to get a prize at the end" (G4P1#27).

**Social support.** Six of the participants in 2 groups shared their ideas of the concept of social support in the Native Hawaiian context. The need for *social support* was expressed as a request for programs that encourage partnering and building of social and family support networks. This concept was addressed explicitly in one student's comment: "*We should have to train the younger generation because they're the ones that are going to keep it alive, like, like people would teach it to us and we teach it to them, you know, so it keeps on going, the cycle*" (G4P5#26)

**Active learning.** Fourteen students in four groups talked about a learning environment that incorporates culturally interactive learning. One student's statement summarized the group's discussion as follows:

> "*Possibly teach how certain Native Hawaiian sports or exercise activities can work certain parts of the body, as far as canoe paddling or swimming to increase the heart rate and then learn exactly what benefit you would receive from each type of Native Hawaiian exercise*" (G2P2#7).

One-third (7 in 3 groups) of the students talked about teaching and learning strategies that include opportunities for reflection, e.g., through personal journals, group discussions and private consultation with instructors.

**Promotion.** The subtheme, *promotion*, was used by twelve students in three groups. They suggested that recruitment efforts focus on the Native
Hawaiian community. With excitement about culturally based opportunities one student stated:

"I think cultural, if you put a cultural influence into it, it will make more Hawaiians our age push toward trying to interact with the program and want to be, you know (healthy) ... If there was something like that I would, I mean, I would make time to do it" (G4P20#1).

Their ideas about program promotion (6 in 2 groups) incorporated a variety of other approaches including newspaper, TV and radio advertisements. They also mentioned celebrity endorsements using catchy advertisements, and using word-of-mouth (6 in 3 groups) techniques that could result in the snowball effect to support recruitment and retention of Native Hawaiians into health promotion programs.
CHAPTER 5
DISCUSSION

This chapter presents a discussion of the results of this study related to current literature. The major themes and subthemes are used to organize the discussion. Study limitations and delimitations, significance and implications for practice and recommendations for future research are also presented. A summary and conclusion are provided.

Two components of the study are presented. First, the discussion addresses the study's findings based on demographic data of the sample with comparisons to the LCC student population. Second, this discussion presents the perceptions, attitudes, beliefs, and recommendations of Native Hawaiian college students (age 18 – 25 years) related to the perceived barriers and supports to healthy living.

The Student Population at Leeward Community College

All participants completed the Demographic Survey (Appendix D). The survey did not ask for ethnicity since self-identification as a Native Hawaiian was assessed as part of screening based on IRB approved inclusion criteria. Thirty-two self-identified Native Hawaiian college students participated in the study. In comparison to the study population which was entirely made up of Native Hawaiian students, LCC enrollment data for the 2004 fall semester (UH MAPS, Fall 04 Enrollment Report) reveals a multiethnic campus including: Filipino, 25.2%; Native Hawaiian/Pacific Islander, 17.6%; Mixed ethnic background,
16.3%; Japanese, 12.9%; Caucasian, 11.4%, Mixed Asian/Pacific Islander, 4.4%; other, 3.5%; other Asian, 2.7%; Chinese, 2.2%; Hispanic, 2.2%; and African American, 1.7%.

According to data analysis, the average student in this study was 20 years, female, single, and without children, working at least part time. A significant segment of the sample was unemployed and one-third of the sample was receiving some sort of public assistance. Most students were living with three or more members in the household and resided on the rural Wai'anae Coast of O'ahu at the time of this study. Comparisons of the study population to the LCC population were not possible because the college did not track similar data.

The sample was nearly equally representative of students who were either very new to college, part way through, or close to graduating and most were majoring in a non-health science career path. This data is consistent with other data showing poor enrollment of Native Hawaiians in math and science fields (State of Hawai'i Data Book, 2000). According to LCC data for the 2004 fall semester (UH MAPS, Fall 04 Enrollment Report) a higher number (65%) of the student population was enrolled in general education and pre-professional careers including health sciences compared to 50% of the study sample. LCC data also reported a lower enrollment of the student population in vocational career and technical trades with only 15.3% enrollment compared to 32% in the study population. Also, according to LCC data, significantly fewer of the LCC
population was unclassified (6.3%) compared to the study sample (19%). University data reported that there was no data for 13.4% of the LCC student population.

*Self-Rated Health and Exercise*

Several students had difficulty using the self-rated scale. The abstract concept of rating health on a numeric scale was foreign to some students. Some students selected the *don't know* option indicating that the use of abstract scales may be an inappropriate tool to assess the self-rated health of young Native Hawaiians. Data pertaining to students' self-rated health and exercise frequency revealed that more than half (56%) of the students met the minimum recommendations for days per week (frequency) of exercise. Sadly, a large portion of the study group (44%), were not meeting recommendations for frequency of exercise. Data pertaining to the length of time (duration) that students exercise per exercise event was similar to the data on exercise frequency. Fifty-nine percent of the study sample reported that they exercised for at least 30 minutes when they did exercise. While most students were meeting the minimum recommendations, many were not (41%). It's also important to consider that one-fourth of the study group selected the *don't know* response. Further studies need to be done to explore students' knowledge of national recommendations for exercise frequency and duration.
Themes and Subcategories

Students were engaged in an open discussion about healthy living and they provided data that was sorted into common groups and later regrouped into themes. Through triangulation of the data four themes emerged: Ideal health; purposeful living; barriers to healthy living; and ideas for programming.

**Ideal Health**

*Being active.* When students were asked "What it means to be healthy?" they described actions indicative of healthy living. Students frequently described health from the perspective of being actively engaged in tasks and responsibilities to family, job and school. It is culturally significant that students in this study viewed health as a matter of being engaged in a busy lifestyle. However, it is also culturally significant that no one mentioned the level of endurance required to fulfill the physically demanding responsibilities that most students described. *Ideal health*, in the traditional Hawaiian context, included the concept of endurance and stamina. Perhaps the young Native Hawaiians in this study did not voice thoughts about endurance because they live in a modern society with contemporary conveniences. Least popular in terms of physical fitness and ideal health was the belief that being healthy requires planned, intentional fitness training.

*Healthy self-identity.* Students agreed that wanting to be healthy often starts with having a healthy self identity. They described identity as being mental, spiritual and cultural in nature. Luquis, Garcia, & Ashford (2003) also found that...
students defined wellness as being part of how people identify self. Students in this study recognized that their cultural identity had been altered during the transition to modernization. It was also mentioned that a reverse transition could ground you back home in a healthy self identity. This concept of retraditionalization or reversing the effects of the transition to modernization is confirmed in the literature (Edwards 2003; Napholz, 2000; Struthers & Lowe 2003).

Healthy diet. In spite of the abundant amount of health promotion campaigns targeting diet, only a few students in this study talked about diet when they were asked to describe healthy living. When they did talk about health and diet they related healthy dietary habits to the lifestyle of ancient Native Hawaiians and how they worked hard to produce food. While students talked more about the importance of being physically engaged, then of diet (as a means to maintain good health), it was specifically mentioned that diet is more important than exercise. It is important to note that the study group did not describe healthy living from the perspective of avoidance behaviors, (i.e., don't smoke).

Purposeful Living

Being self-directed. Students were engaged in an open discussion about supports to healthy living. When students were asked “What are things that Native Hawaiians can do to be healthy?”, they provided extensive information supporting the concept that being healthy is a matter of being self-directed in wanting to be healthy. Students were specific in their discussion that if students
aren't interested in healthy living it's not likely that they will engage in health protective behaviors. The importance of supporting students' interest as a key component of developing desirable health protective services is consistent with the literature in college health (Dovey-Pearce et al. 2005; Von Ah et al.).

Students also expressed a value for being self-directed to make decisions based on personal choice as a support to healthy living. They believed that making a decision to be healthy requires effort and planning but can be done given that there are many free activities in Hawai‘i. Students voiced ideas consistent with national health promotion marketing that a commitment to being healthy can be achieved by gradually incorporating small changes. The small changes concept mentioned by these students was recently introduced locally as part of a national health campaign. (Cancer Research Center of Hawaii, 2002). The literature predicted that students would recommend similar health promotion interventions as those suggested by professionals if asked for their ideas. The literature supports working with students to tailor evidenced based approaches to fit student-based interventions (Cousineau, Goldstein & Franko, 2005).

Free activities. Students in this study frequently related to free activities that are unique to their island lifestyle as supports to healthy living. While hula, canoe paddling and surfing have not been recommended by professionals, they can easily be incorporated into a small changes campaign.
Healthy routine. Having a daily routine which includes a physically demanding job and physically demanding tasks such as housework along with some good diet choices was perceived as natural supports to healthy living.

Positive attitude. For the students in this study, having a positive attitude was also believed to be a support. They related a positive attitude to how you look. Being accountable and self-motivated was a subtheme of having a positive attitude and was only used in reference to attending to one's physical appearance.

Social support: A supportive relationship with family and friends was described as a support to healthy living. The concept of social connections as supports to healthy living is consistent with Native Hawaiian cultural norms (Hale, Hannum & Espelage, 2005; Handy & Puku‘i, 1998). Students informed the study that social supports are sometimes experienced as a critical incident resulting from a diagnosis of an illness (with self or significant other). According to the literature (Ivarsson, Sjoberg, & Larsson, 2005; Martensson, Dracup, & Fridlund, 2001), a critical incident can motivate someone to take on the persona of a role model. Students identified parents as being role models to their spouse and children after experiencing a critical incident. Students can also be role models to their peers. The concept of using a critical incident as a mechanism of a support to healthy living was not presumed to be a factor in this study. However, discovering the concept in this population has important implications for health-care professionals working with Native Hawaiians. Cultural values of malama
(taking care of others) and *lokahi* (unity) are key attributes of ideal health in Native Hawaiian culture. A conceptual framework emphasizing these cultural attributes can be used to empower Native Hawaiians to build on critical experiences. The concept has been recognized in the literature, over the past decade, in building positive social supports between persons through a shared critical experience of stress or chaos.

*Barriers to Healthy Living*

The greatest barrier to healthy living was associated with having too many demands on time and life.

*Lack of access, time, and laziness.* Students in the study frequently described barriers with lack of time, lack of access to transportation, inconvenient location and cost. These barriers were, in part, associated with *being Americanized.* Unhealthy habits were admittedly related to *making excuses,* being *lazy* and being connected to *1,000 channels of cable.*

*Being Americanized.* The theme *being Americanized* was specifically equated with the demands of living in these *modern times.* This view is supported by the literature describing health effects experienced by Native Hawaiians as a consequence of the transformation toward modernization (Blaisdell, 1993; McMullin, 2005).

*Lack of a critical incident.* The concept of not experiencing a critical incident was specifically addressed as a barrier to healthy living. It's culturally significant that not having a critical incident in the family was perceived as a
barrier "because it probably hasn't hit our family hard ... so it's not staring me in the face like it's an eminent problem". Identifying this concept stands out for its specificity to both themes of supports and barriers to healthy living. While the concept has not been addressed for its usefulness in the Native Hawaiian population, its usefulness has been recognized in other groups (Ivarsson, Sjoberg, & Larsson, 2005; Martensson, Dracup, & Fridlund, 2001).

*Transition to adulthood.* Students also acknowledged barriers associated with the transition years between adolescence and adulthood. Students acknowledged that being engaged in physical activities as part of a high school routine was easier than making time for exercise during the college years. Students experienced the same kinds of barriers that have been identified in the literature (Von Ah et al.).

*Invincibility of youth and laziness.* It's not surprising to find that students' beliefs are consistent with the invincibility of their developmental stage. Students believed that health problems are not imminent at their age, that diet and exercise are not important for young people, and that people could eat anything as long as they exercise. Their words are consistent with others in their age group and the literature supports the idea that health perceptions contribute to unhealthy behaviors in adolescence that can potentially lead to unhealthy habits in adulthood (CDC, MMWR, 1995).
Ideas for Programming

Incorporate Native Hawaiian. The greatest occurrence of frequency and extensiveness was found in the subtheme Incorporate Native Hawaiian. Students voiced culturally based ideas more often than any other subtheme within the ideas for programming theme. Students specified incorporating cultural supports including: farming, hula and canoe paddling. Their comments reveal their preference for culturally relevant programs. Students specifically asked for Native Hawaiian leadership believing that such leadership is an important component of cultural programming. Their request for an interactive learning environment which teaches them how to live healthy - is consistent with the cultural tradition of vocational training (learning by doing) and laulima (lending a hand). The literature confirms that Native Hawaiians "acquired knowledge and skills by natural processes rather than by artificial means as in formal education" (Handy & Puku'i, 1998, Chap. 7, p. 177).

Incentives. Ideas for programming also included monetary incentives (i.e., tuition waivers), and group-based incentives (i.e., college sports programs). However, the concept of incentives was offensive to some who thought that students should access services with the incentive to improve their health. The concept of aloha (munificence) is significant in the Hawaiian culture.

Active learning. Students expressed a desire to be able to make informed choices instead of following fads. Their request for programs that include information to increase knowledge was predictable for all college students.
However, their preference for interactive experiences to learn the how to component of recommended diet, exercise, and lifestyle behaviors connects these students to cultural teaching practices (Handy & Puku'i, 1998). The traditional focus on learning was not on how do you do what you do but rather on why do you do what you do (Kekuni Blaisdell, personal communication, January, 4, 2006). Their attraction to know why they should follow recommendations is culturally significant.

Promotion. Students were excited about ideas for programming that target recruitment of Native Hawaiians from the community. Their ideas about program promotion incorporated a variety of approaches including newspaper, TV, and radio advertisements. Also mentioned were celebrity endorsements using catchy ads. A word-of-mouth technique to start a snowball effect to recruit Native Hawaiians into health promotion programs was recommended. Students in this study described ideas for programming that are similar to other college students' recommendations (Luquis et al., 2003).

Limitations and Delimitations

Limitations

Methodological and conceptual limitations and delimitations were identified during the study including:

1. Sampling limitation: Although the sample size and number of group sessions attained in this study exceeded the minimum recommendations to reach thematic saturation (Krueger & Casey, 2000), the data may have been limited
by the inclusion criteria which restricted participation to Native Hawaiian students within the University of Hawai‘i system.

2. Generalization limitations: The design of the demographic questionnaire limits the generalizability of the data to Native Hawaiian college because students in the study were only given two options to identify ethnicity: either Native Hawaiian or non-Native Hawaiian, other ethnic options were not included.

3. Sampling limitations: Students volunteered to participate in one of 5-prescheduled focus group sessions. Random, self-selected placement may have affected the flow of conversation as evidenced by some groups having a more compatible and interactive chemistry than other groups.

4. Setting limitations: Students were asked to meet in one location to complete the informed consent process. Afterward, they were taken to the recording studio where the sessions were held. Students were herded from one location to another because food and beverages are not allowed in the studio. Meeting initially in an area away from the recording studio allowed for refreshments to be served prior to the planned one-hour session. Unfortunately, the process of herding students from one area to another caused some confusion which may have limited the flow of conversation. Focus sessions should be contained to one area to prevent confusion.

5. Methodological limitations: The formal recording studio on the college campus was a foreign environment to the mostly rural participant pool. The technical
interferences of the video taping method of data collection were sometimes distracting and interfered with the flow of conversation.

6. Conceptual limitations: Herr and Anderson (2005) requires that the concept of positionality be addressed in action research. Throughout this action research study the investigator held multiple positions as: 1) Outsider: faculty member and nurse practitioner at the campus where the study was held, engaged with students on a professional level, and member of a community action group committed to addressing and resolving social issues affecting Native Hawaiians; and 2) Insider: Native Hawaiian doctoral student engaged with student peers. The investigator's positionality as an outsider – within may have had a limiting influence on various areas of the study (Herr & Anderson, 2005). There were instances when recommendations from members of the doctoral committee conflicted with recommendations from Native Hawaiian informants. These conflicts affected the investigator personally. Every instance of conflict that related to tensions between indigenous values and ways of knowing and Western research methodologies was explored with self, friends, family and peers, and worked through to prevent such conflict from limiting the dynamics of the study (Herr & Anderson, 2005).

Delimitations

There were also delimitations to the study. The requirement of action research to work with Native Hawaiian students and community action members during every step of this empowerment action study was highly compatible with
Native Hawaiian protocol. The researcher's positionality as an outsider-within was a delimiting support during the analysis process. The process of coding students' words frequently required a shared understanding of indigenous values, slang, and phrases. Setting the study at Leeward Community College enhanced access to young adult Native Hawaiians more likely than not to be willing to talk about healthy living as college students are already expressing motivation for positive change.

Significance of the Study and Implications for Practice

This study utilized a participatory action research approach to gain insight to the words and referents that Native Hawaiians use when talking about physical activity and healthy living to conceptualize healthy living in the Native Hawaiian context (Rogers & Knafl, 2000).

Students' voiced the answers to the research questions:

1. What do young Native Hawaiians think about health?

   - The Ideal health domain illuminated students' perceptions that health, ideally, is a natural product of their active lifestyle. Students emphasized their value for daily routines that include physical activity and healthy diet behaviors in group settings.

2. What do young adult Native Hawaiians perceive as benefits and barriers to healthy living?
• The most significant support to being healthy starts with being interested in health. Supports that can ignite an interest in health could motivate students to start making small changes.

• Barriers to healthy living are a natural effect of the transition years toward independence which present many challenges to having a healthy lifestyle. Also, being Americanized is a barrier to health resultant to the separation from and loss of traditional approaches to healthy living that were known to be highly effective.

3. What kinds of services, programs, or environmental supports would young adult Native Hawaiians recommend?

• Programs should be taught by Native Hawaiian experts and tailored to complement traditional and Western interventions in an interactive setting that builds on culturally relevant activities emphasizing traditional and contemporary approaches to healthy living.

Recommendations for Future Research

Because Native Hawaiians traditionally viewed healthy living as being a natural product of attending to domestic and socioeconomic responsibilities it is worthwhile to explore ways to design programs that build on traditional health protective strategies. The recommendation is made for participatory research that partners college students, health care professionals, and educators to explore ways to ignite students' interest in healthy living. Future research should focus on the benefits of using students' voices to design interventions to improve
the long term health of students beyond the transition years. Work will need to be
done to test the effectiveness of the students’ recommended interventions to
spark students’ interests in healthy living.

Summary and Conclusion

Native Hawaiians experience a high rate of morbidity and mortality related
to preventable chronic diseases as a result of unhealthy eating habits and
physical inactivity presenting a significant social problem in Hawai‘i. Yet, little is
known about how to intervene with Native Hawaiians in the transition years
between adolescence and adulthood when good eating and exercise habits need
to be established. This void drew the attention of concerned community
members.

The investigator and members of a community action group (CAG) shared
a community-based partnership and engaged in cyclic phases of inquiry and
reflection to inform the methodology of this study in response to community
concerns (Badger, 2000). Cycles of exploration and evaluation were conducted
to assess the relevance of planned interventions to local concerns. The study
was designed in response to concept-specific (health perceptions of Native
Hawaiians), future-oriented goals (affect students’ health destiny during the
transition years) to understand how Native Hawaiians and interested others can
affect health behaviors through an empowerment process (Huang & Wang,
2005).
This descriptive empowerment action study used focused discussions as the first step to empowering students to gain control of their health destiny through an empowerment educational process (McNiff & Whitehead, 2006).

Two non-random, purposive samples were recruited: 1) Cultural experts as key informants; and 2) study sample. Thirty-two Native Hawaiian college students, between the ages of 18-25 years, enrolled in the University of Hawaii college system, were recruited to participate in 4 full-focus idea generation focus groups (Herr & Anderson, 2005). A focus group discussion guide was used to explore the perceptions of young adult Native Hawaiians about healthy living. Transcripts were analyzed using the long table method (Kruger & Casey (2000).

Four major themes emerged: 1) Students maintain their ideal health by staying actively involved in school, work, and family responsibilities; 2) People are either interested in healthy living or they are not. Efforts to support healthy living has to start with sparking peoples' interest; 3) Students in the blended contemporary culture of Hawai'i face multiple barriers as a result of being Americanized; 4) Cultural experts can influence young Native Hawaiians' interest in healthy living through culturally based programs that incorporate active learning.

This study is the first to explore the concept of health from the perspective of young adult Native Hawaiians. The goal is to empower students to inspire their own interest in healthy living. Student agents confirmed the transferability of the findings as representative of their own perceptions of healthy living.
Triangulation of the data verified the credibility of the data through long table cross referencing of transcript data to the study findings. Most findings of this study were supported by the literature. However, ethno-cultural findings not well supported by the literature (i.e., absence of the theme of endurance, absence of avoidance behaviors, and absence of the usefulness of critical incidents in Native Hawaiian literature) were also identified and should be investigated further. The dependability of the study stands to be proven through future research.
References


Oneha, M. F. M. (2000). Ka mauli O Ka ‘aina a he mauli kanaka (the life of the land is the life of the people): *An ethnographic study from a Hawaiian sense of place.* University of Colorado Health Sciences Center p. 172.


Appendix A

INFORMED CONSENT AGREEMENT

Approved by IRB of POL on:

Papa Ola Lokahi

FOCUS GROUP INFORMED CONSENT FORM
PACE+ to Improve Energy Balance in Young Adult Native Hawaiians

Principal Investigator
Jamie Boyd, NP
Instructor, Department of Nursing
School of Nursing and Dental Hygiene
Ph. # (808) 455-0558; 294-9394

Sponsors
'Imi Hale Native Hawaiian Cancer Network
894 Queen Street. Honolulu, HI 96813
Ph. (808) 597-6550
Fax (808) 597-6552

24-Hour Emergency Telephone Number
Jamie Boyd: (808) 294-9394

This project is funded by the National Cancer Institute - Center to Reduce Cancer Health Disparities, 6116 Executive Boulevard, Suite 602, Rockville, MD 20852.

INFORMED CONSENT
Before you decide whether or not to take part in this research study, we want you to know:
1. the purpose of the study, 2) what you will be expected to do as a participant, 3) how it may or may not help you and 4) any possible risks to you for participating.

Once you get the information to answer all of the above and, any other questions you have about this study we will ask you to sign this consent form if you are willing to volunteer.

It is important to us to know that taking part in the study is of your own free will. You can choose not to participate at any time during the study without explanation or penalty of any kind.

PURPOSE OF THE STUDY: This study will help us learn about eating and exercise habits of young adult Native Hawaiians. We will use the results to improve the Native Hawaiian Nutrition and Lifestyle course at Leeward Community College and other programs. We will also use the results to help health care providers design disease prevention programs that are appropriate for Native Hawaiians.
WHAT IS REQUIRED OF YOU? You will take part in a discussion with 6 to 10 others. The discussion is meant to last 60–90 minutes, but may be a little longer or shorter. If the group leader asks a question that you do not want to answer, you do not need to answer. You may leave the group at any time. You should not talk about the specific things discussed here outside the group. You should not talk about the people in the focus group to others who are not in the group. You may ask us not to tape the group discussion. You may ask us to stop recording at any time.

RISKS AND BENEFITS: There are no known risks other than loss of privacy from participating in this focus group. You may find it uncomfortable to talk in front of a group and it is possible that some in the group may repeat what you say to others who are not in the focus group. Your participation will help us design programs that benefit the health of students.

COMPENSATION FOR PARTICIPATION: You will receive $35.00 to compensate you for your time and travel to participate in this study.

COMPENSATION FOR INJURY: There will be minimal risk involved in participating in this research focus group. There is no compensation or medical treatment in the event that you are harmed as a result of participating in this study.

You understand that if you are injured in the course of this research procedure, you alone may be responsible for the cost of treating your injuries.

RESEARCHER’S AGREEMENT: We will make sure that the information and tapes are kept in a safe place. Only the researchers will listen to the tapes. If the discussion is transcribed (typed onto paper), the transcriber will sign an agreement not to talk about what was said during the discussion. The tapes will be erased when we finish the study. When we write about the research or talk about the study, you will not be identified. Sometimes the Native Hawaiian Health Care System IRB will review the records, but only to make sure that the researchers are doing our jobs.

VOLUNTARY CONSENT
You have read the information provided above. You voluntarily agree to participate and may withdraw your consent at any time. Your decision to withdraw will not affect your care. You understand that your consent does not take away any of your legal rights in case of negligence on the part of anyone who is working on this project.

If you have any other questions about this study you may call the Principal Investigator, Jamie Boyd at her office at 455-0558 or cell phone at 293-9394.
If you cannot get satisfactory answers to your questions or if you have any comments or complaints about your treatment in this study, you may contact: 1) The University of Hawaii Committee on Human Studies at 956-5007 or, 2) The Native Hawaiian Health Care Systems – Institutional Review Board, Papa Ola Lokahi, 894 Queen Street Honolulu, HI 96813, Contact Persons: Lisa Kaʻanoʻi, IRB Administrator or Dr. Kekuni Blaisdell, NHHCS IRB Chair at Phone: (808)597-6558 or (808)597-6550.

A copy of this consent will be given to me.

Name of Participant (Please print) ________________________________ Date ________________________________

Subject Signature ________________________________ Date ________________________________

Researcher's Signature ________________________________ Date ________________________________

Revised 9-01-.05
Appendix B

NATIVE HAWAIIAN HUMAN SUBJECTS APPROVAL

NHHC5-IRB
Native Hawaiian Health Care System - Institutional Review Board

NHHC5-IRB
CONSORTIUM

Jamie Boyd, MSN, CRNP
47-780 Ahuimanu Rd.
Kaneohe, HI 96744

September 20, 2004

Dear Ms. Boyd:

Re: Adapting PACE+ to Improve energy Balance in Young Adult Native Hawaiians, Ref. No. #04-N-07

Your project was reviewed and approved for one year by the NHHC5-IRB at the meeting on September 17, 2004. This letter is your record of NHHC5-IRB approval of this study with the following recommendations:

Recommendations are not required for IRB approval but reflect IRB concerns that the researcher may consider:

1. Be sensitive to definitions and terminology. For example:
   a. Acknowledging that the approach of the course is Native Hawaiian and for Native Hawaiians, although the diet may not be exclusively Native Hawaiian, such as, in the section on "juicing."

   b. Terms such as "traditional," "ancient," "older," "Native," "Native Hawaiian."

   If during the course of your project, you intend to make changes, which may significantly affect the human participants involved, you are required to obtain NHHC5-IRB approval prior to implementing these changes. Any unanticipated problems related to your use of human participants must be promptly reported to the NHHC5-IRB by contacting the Chairperson, Dr. Kekuni Blaisdell through this office. This is required so that the IRB can update or revise protective measures for human participants as may be necessary. In addition, under the Federal Wide Assurance with the U.S. Department of Health and Human Services, the NHHC5-IRB must report certain situations to the federal government. Examples of these reportable situations include: deaths, injuries, adverse reactions or unforeseen risks to human participants. These reports must be made regardless of the source of funding for your project.

In accordance with the Native Hawaiian Health Care System – Institutional Review Board policy, you are expected to maintain as an essential part of your project records, any records pertaining to the use of human subjects in your research. This includes any information or materials conveyed to, and

Richard Kekuni Blaisdell MD
Chair

Claire K. Hughes, DrPH
Vice Chair
years after project completion or termination. If this is a funded project, you should be aware that the records are subject to inspection and review by authorized representatives of the federal government.

Please note that the approval period for this project period will expire on September 16, 2005. If you expect your project to continue beyond this date, you must submit a continuation application to the NHHC-IRB for renewal of approval prior to the current approval expiration date. NHHC-IRB approval must be renewed for the entire term of your project or award.

The NHHC-IRB is to be notified by you, when this project is completed. We may ask that you provide information regarding your experiences with human participants and with the NHHC-IRB review process. Upon notification, we will close our files pertaining to your project. Any subsequent reactivation of the project will require a new application.

If you have any questions regarding this decision, please contact Ms. Lisa Kaanoi at 808-597-6553 x210. Correspondence should be sent to the NHHC-IRB, c/o Papa Ola Lokahi, attention, Lisa Kaanoi. Please reference Protocol File 04-N-07.

Thank you for your cooperation and efforts throughout this review process. We wish you success in this endeavor.

Sincerely,

[Signature]

Richard Kekuni Blaisdell, MD
Chairman
Appendix C

UNIVERSITY OF HAWAII HUMAN SUBJECTS EXEMPTION

Protection of Human Subjects
Assurance Identification/IRB Certification/Declaration of Exemption
(Common Rule)

1. Title of Application or Project:

"Adapting PACE to Improve Energy Balance in Young Adult Native Hawaiians"

6. Assurance Status of the Project (Respond to one of the following):

[X] This Assurance, on file with the Department of Health and Human Services, covers this activity.

Name of Assurance Identification No.
F-3525

Expiration Date
October 15, 2005

X] Name of Principal Investigator, Program Director, Fellow, or Other
Jamie Bove, FNP

17. Date
October 5, 2004

Sponsored by HHS
Appendix D

DEMOGRAPHIC SURVEY

Aloha! We would like to ask for your kokua in completing this questionnaire. Any information you provide will be kept confidential, and used for program improvement and statistical purposes only. Mahalo!

Name: ________________________________

<table>
<thead>
<tr>
<th>Last</th>
<th>First</th>
<th>Middle Initial</th>
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</thead>
</table>

Address: ________________________________

<table>
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<th>Street</th>
<th>Apt.</th>
<th>City</th>
<th>Zip Code</th>
</tr>
</thead>
</table>

Phone #: __________________________ Email: ________________

CIRCLE ONLY ONE ANSWER FOR EACH QUESTION

1. Ethnicity
   1 Hawaiian or part Hawaiian
   2 Non-Hawaiian

2. Gender
   1 Male
   2 Female

3. Are you a parent?
   1 Yes
   2 No

4. Marital Status
   1 Single
   2 Married
   3 Separated
   4 Divorced
   5 Widowed

5. How many people live in your household (including yourself)? ________

6. Household Estimated Income
   1 Less than $5,000
   2 $5,001-10,000
   3 $10,001-$15,000
   4 $15,001-$20,000
   5 $20,001-$25,000
   6 $25,001-$50,000
   7 $50,001+
   8 Unknown

7. Are you currently receiving public assistance (including financial aid)?
   1 Yes
   2 No

8. Employment
   1 Employed (FT- 30 hours or more)
   2 Employed (PT- less than 30 hours)
   3 Self-employed
   4 Unemployed
   5 Unemployed but/not looking (FT Student)
## Appendix D

### DEMOGRAPHIC SURVEY (continued)

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<tr>
<th>1</th>
<th>12\textsuperscript{th} grade</th>
<th>4</th>
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<th>7</th>
<th>Certificate of Completion</th>
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<tbody>
<tr>
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<td>GED</td>
<td>5</td>
<td>Associate Degree</td>
<td>8</td>
<td>Bachelor Degree</td>
</tr>
<tr>
<td>3</td>
<td>30 or less College Credits</td>
<td>6</td>
<td>Certificate of Achievement</td>
<td>9</td>
<td>Master/PhD Degree</td>
</tr>
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10. Are you enrolled in college?

11. What is your highest educational goal?

<table>
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<th>Certificate of Achievement</th>
<th>3</th>
<th>Business School Diploma</th>
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</thead>
<tbody>
<tr>
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<td>Certificate of Completion</td>
<td>4</td>
<td>Associate Degree</td>
<td>6</td>
<td>Graduate Degree</td>
</tr>
</tbody>
</table>

12. What is your Major?

13. How would you rate your health?

<table>
<thead>
<tr>
<th>1</th>
<th>Very Unhealthy</th>
<th>3</th>
<th>Very Healthy</th>
<th>5</th>
<th>Unsure/Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Somewhat Unhealthy</td>
<td>4</td>
<td>Somewhat Healthy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. How many times a week do you exercise? (min./day) ________?
Appendix E

FOCUS GROUP GUIDE

WELCOME (5 minutes)

Welcome everyone. My name is _, an independent researcher. Thank you for coming for this discussion. Before we begin, I'd like to explain a few things about how the discussion will work.

1. First of all, I want everyone to know there are no right or wrong answers. We want to know your opinions and those opinions might differ. This is fine. We want to know what each of you thinks about the issues we will be discussing.

2. You have probably noticed the video equipment in the room. It’s here because we are audiotaping and videotaping the discussion. Afterwards, I have to write a report. I want to give you my full attention and not have to take a lot of notes. Because we are taping, it is important that you try to speak one at a time. I may occasionally interrupt you when two or more people are talking at once in order to be sure everyone gets a chance to talk and that responses are accurately recorded.

3. Behind me is a one-way mirror. Some of the people working on this project are observing this discussion so that they can hear your opinions directly from you. However, your identity and anything you personally say here will remain confidential. Your names, addresses, and phone numbers will not be given to anyone, and no one will contact you after this group is over. When I write my report, I will not refer to anyone by name.

4. Please turn off your beepers & cell phones. The group will last only about 90 minutes. Should you need to go to the restroom during the discussion, please feel free to leave, but we’d appreciate it if you would go one at a time.

II. INTRODUCTION AND WARM-UP (10 minutes)

1. Now, first let’s spend a little time getting to know one another. Let’s go around the table and introduce ourselves. Please tell me:

   • Your first name
   • What area you are from
   • And what do you like to do in your spare time—a hobby, activity, sport, etc. or anything else you’d like to tell us about yourself.

III. CURRENT PERCEPTIONS & PHYSICAL ACTIVITY BEHAVIORS (20 minutes)
1. Today's discussion is going to focus on physical activity or being physically active. Before we begin our discussion, let's talk a little bit about that idea. When you hear the phrases "physical activity" or "being physically active," what does that mean to you?

   a. [PROBE IF NEEDED: Does it have to do with heart rate? Types of activity? Intensity of activity? Sweating or breathing heavy? Endurance?]

2. How much physical activity do you think an adult your age should be getting?

   a. How does this compare to how much physical activity you generally get?

      i. How do you feel about that? What do you think about the amount of physical activity that you are getting?

         1. [PROBE: Do you think it's the right amount for to be healthy or too little activity to get you healthy?]

      ii. What kinds of benefits have you experienced from being physically active? [IF NOT MENTIONED, PROBE FOR A CONNECTION TO DISEASE PREVENTION]

      iii. What are some of the benefits to your ohana (family), ka aina (the land), ke kai (the water)?

   b. What kinds of activities do you do when you are physically active? [PROBE FOR SPECIFIC ACTIVITIES—E.G., HULA, PADDLEING, FARMING, HUNTING, TAKING CARE OF FAMILY, ETC. WRITE ACTIVITIES ON FLIPCHART]

      i. What is it about these activities that makes them more appealing to you than other activities? [PROBE ON WHAT MAKES THESE ACTIVITIES EASIER TO DO THAN OTHERS]

      ii. What makes it difficult for you to do other activities? [PROBE ON BARRIERS]

IV. STRATEGIES OF INTEREST & CULTURAL CONNECTION (25 minutes)

3. What can you tell me about the way na kanaka kahiko (the ancient people) lived and their health and the way Native Hawaiians live today and our health? [PROBE INTO ACTIVITIES OF ANCESTORS AND OTHER TRADITIONAL PHYSICAL ACTIVITIES]

   a. What do you think about your heritage as a physically fit race? Do you think that Hawaiians your age think about this? Why/why not?

4. How does your na’au or understanding of cultural things help you as a Native Hawaiian to be healthy? [WRITE IDEAS ON FLIPCHART]
5. What do you think about living day to day in a way that keeps you physically fit (physically demanding work, being an active person, etc.)? What do you think about getting regular exercise (running, walking, swimming, etc.) to be physically fit? Do you think these two are the same or different?

6. What kinds of cultural things do you do as a Native Hawaiian that helps you be physically active?

7. What do you think about your kuleana (responsibility) to your ancestors and future Native Hawaiians to perpetuate lifestyles that protect the health of your body?
   a. How do you feel about being dedicated to culture as a way to be healthy or physically active? Does it make it more appealing, less appealing, or are you neutral on it? Why?
      i. [PROBE DEEPLY ON ROLE OF HAWAIIAN CULTURE AND THEIR FEELINGS OF HAVING CULTURAL CONNECTION TO PHYSICAL ACTIVITY]
   b. What would make it easier for you to participate in cultural activities to help you get physically active?
      i. What things would make it difficult to do this? [PROBE ON BARRIERS TO INCORPORATING NATIVE HAWAIIAN CULTURE INTO PHYSICAL ACTIVITY]

8. I'd like you to think a bit about what could help you be more physically active. What types of services, programs, or activities would make it easier for you to be physically active?
   a. [HAVE UNAIDED DISCUSSION; PROBE FOR CHARACTERISTICS OF ACTIVITIES, PROGRAMS, SERVICES, ETC.]
   b. I'd like to talk about one specific idea for a few minutes. What if there was a hui (group) or papa (class) developed for young Hawaiians that was taught by a kumu. This hui would discuss ways to be healthy and would participate in Hawaiian activities together. How would you feel about joining a hui like this?
      i. What would have to be included in this hui or papa for you to be interested in it?
         1. How important is it that the hui learn specifically about the health of aina and the health of the people. (malama ka aina a ka aina malama ia oe).
      ii. What would motivate you to be part of this hui or papa? [PROBE: FIELD TRIPS, SKILL BUILDING, CONVENIENT SCHEDULE, COLLEGE CREDIT]
1. What would make it hard for you to be **dedicated** to this hui?  
[PROBE ON BARRIERS]

V. OTHER PHYSICAL ACTIVITY STRATEGIES (15 minutes)

9. Let's talk a bit about some other ways you could be physically active. I'm going to ask you a few questions about different places to be physically active or get information on physical activity. If there was a gym available to you free of change, how likely is it that you would go there?

   a. What would be appealing about this idea?

      i. What would be unappealing about going to a gym?

10. How about using outdoor trails for walking or running? How do you feel about this activity?

   a. What would be appealing about using outdoor trails?

      i. What would be unappealing or why wouldn't you use them?

11. How about if there were a health fair in your community or at school where you could get more information on physical activity as well as get your blood pressure and cholesterol checked — how likely would you be to go to this type of health fair?

   a. What would be appealing about going to this type of health fair? What would you hope to get out of it?

   b. Why would you not want to go to the health fair? What would be unappealing about it?

12. What if you were part of a group where your name was put in a lottery for a monthly prize for each month you continued to exercise — how much would this motivate you to be more physically active?

   a. How would being part of the lottery motivate you to be more physically active?

      i. What do you think would be a fair prize? (tuition, health care, personal trainer, nutritionist)

      ii. What about this idea does not appeal to you?

13. How about incorporating physical activity as part of your daily routine? For example, how likely would you be to use the stairs instead of the elevator or park farther away in order to walk more?

   a. Are these things that you would do? What makes it appealing to do them?

      i. Why wouldn't you do them?
14. That is almost it for our session this evening. Just to wrap up this evening's discussion—if there is one thing—a program, service, or activity—that would help you to become more physically active, what would that be?

CLOSING (2 minutes)

We're all done for today. Thank you so much for your time; we appreciate that you came out here tonight. Your opinions and insights have been very helpful. Thanks again and enjoy the rest of your evening.

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