Jarrin Ching
Fong Chun Kwok
Wai Chu Leung
Chrislin Yee
FSHN 451

Nutrition Education for Older Adults

Aging is a part of the natural life to the elderly population in Hawaii, as well as the rest of the whole world. A recent increase in the elderly population in the United States has forced seniors to rely more upon the assistance of others to help them improve and maintain optimal health. Although aging seems unbeatable, nutrition adequacy and healthy eating habits play a major role in the well-being of an elderly individual, affecting the rate of aging and slowing down the progress of age-related health problems. Nevertheless, many of the seniors in Hawaii have not been provided with sufficient knowledge regarding nutrition and staying healthy. Accordingly, in order to gain a greater understanding of the lifestyle practices, dietary practices, and health concerns of the elderly population, a needs assessment was conducted on a small senior group in Hawaii. The results of the needs assessment exposed several areas of concern, and thus demonstrated the need for possible interventions that would ultimately incorporate nutrition education for seniors.

There are nearly 203,000 Hawaii residents aged 65 years and older, which constitutes roughly 14.7% of Hawaii's total population (State of Hawaii, 2012). Hawaii has a larger older adult population compared to the rest of the United States with an average of 13.3% people that are aged 65 and over (U.S. Census Bureau, 2012). However, people in Hawaii have a longer

life expectancy than those across the nation, 79.8 years versus 76.9 years, and women tend to live longer than men – 82.5 years versus 77.1 years (Yuan S, Karel H, & Yuen S, 2007). Additionally, Hawaii has a racially diverse population. Compared to the rest of the U.S., Hawaii has a higher percentage of Asian (57.7% vs. 3.4%), Hawaiian, and other Pacific Islander (5.4% vs. >0.1%) older adults. There is a smaller percentage of white (24.5% vs. 80.0%) and black (0.4% vs. 8.5%) older adults (U.S. Census Bureau 2012). Within the state's older Asian population, Japanese (34.3%) and Filipinos (14.7%) are the largest racial groups (Yuan S, Karel H, & Yuen S, 2007). Compared to the rest of U.S., there are fewer native-born (77.2% vs. 89.9%) and more foreign-born (22.8% vs. 10.1%) older adults in Hawaii. Many older adults in Hawaii speak English poorly or not at all. The Older adults in Hawaii experiencing language barriers are more than twice as likely as older adults in the rest of the U.S. (11.2% vs. 4.1% of those 60 years and older), with the difference magnified in the oldest cohort (16.1% vs. 3.5% of those 85 years and older) (Yuan S, Karel H, & Yuen S, 2007). Research has demonstrated that U.S. residents with limited English proficiency (LEP) have a harder time accessing health care (Ponce N, Ku L & Cunningham W, 2007). Furthermore, even when LEP patients do receive care, language barriers can reduce the quality of care and increase the risk of miscommunication between patients and clinicians.

Hawaii's total population is expected to grow by 21.0% between 2000 and 2030. However, the number of adults 60 years and older will also increase by 93.8% and those 85 years and older will increase by 174.7% during the same period of time (Yuan S, Karel H, & Yuen S, 2007). The high rate of growth of the older cohort may affect the age distribution of

Hawaii's population in the future. In general, there will be a smaller proportion of children and younger adults in relation to those 65 years and older (State of Hawaii 2012). Older adults use more health care services, have complex conditions, and require professional expertise that meets their needs. Most providers receive some type of training on aging, but the percentage of those who actually specialize in this area is small which means more certified specialists are required to meet the needs of this group (Institute of Medicine, 2008).

Aging in general, is the accumulation of changes in a person over time in regards to the physical, psychological, mental and social aspects. (Bowen, 2004). Aging is accompanied with a decline in the functional capacity of almost every organ system. There can be a decline in vision, hearing, smell, and taste; loss of lean body mass, increased body fat, loss of bone density; slowing of the digestive tract, increased risk of chronic diseases, decline in immunocompetence, and malnutrition (Goodwin 1989). Nutrition status in elderly plays a big role in the incidence and prevalence of age-related health problems, such as chronic disease. Physical, mental, and social health issues among seniors are the major factors affecting their nutritional status. These factors include the presence of chronic or acute illnesses, medication, dental health, depression, social support, level of activity, cognitive status, economic, and ethnic status (Goodwin 1989). Specific nutrient needs also need to be addressed with the elderly population in Hawaii. The majority of this population has decreased calorie needs with a reduced overall fat content in the diet and increased requirements for complex carbohydrates (Anderson 2012). Common vitamins and minerals must also be addressed because older adults are at risk of being deficient in vitamins D and B12, calcium, zinc, and folate (Anderson 2012).

According to Centers for Disease Control and Prevention, each year, one in three older adults aged 65 years or older falls. 20 to 30% of seniors who fall suffer from moderate to severe injuries such as fractures or head traumas. The most common fractures are of the spine, hip, forearm, leg, ankle, pelvis, upper arm and hand. These injuries can make it hard to get around or live independently and increase the risk of early death (CDC, 2012). Fortunately, falls are a public health problem that is largely preventable. However many people who fall, even if they are not injured, develop a fear of falling. This fear may cause them to limit their activities, which leads to reduced mobility and loss of physical fitness and in turn increases their actual risk of falling (CDC 2012).

Healthy People is a set of goals and objectives set for a 10 year period that was designed to target the nation's health that was released by the U.S. Department of Health and Human Services. The goal of *Healthy People 2020* for older adults is to improve the health, function, and quality of life. In 2011, the first baby boomers turned 65 years old and more than half of them will have at least one chronic disease by 2030. The most common prevailing chronic diseases of the elderly population include type 2 diabetes mellitus, arthritis, congestive heart failure, and dementia (Healthy People).

Our group chose the Senior Companion Group to serve as the target population for our needs assessment. The Senior Companion Group was established by the Department of Human Services. 75 participants were asked to complete a survey composed of ten questions addressing and analyzing the basic needs of living, lifestyle practices, as well as food intake. For accuracy purposes, 3 participants' surveys were excluded due to the failure to complete all

of the survey questions. Thus, the data was adjusted accordingly for a total of 72 participants. The number of female seniors (60 people) clearly outnumbered the number of male participants (12 people). The average age of total population was 72 years old. Of the 60 female participants, the average age was 71 and of the 12 male participants, the average age was 76.

Based on the analysis, only a handful of seniors reported having a caregiver, some of which were hired home-nurses while a couple of other seniors were being cared for by family members. Many of the senior participants lived with a spouse or other family members. Seniors that lived on their own were more involved with social groups and clubs. For the most part, the members of the Senior Companion Group appeared to be very active. Almost all of the participants reported achieving at least 3 sessions of physical activity per week. Even so, perhaps the most intriguing conclusion was that the majority of the seniors testified being involved in a daily routine of some sort of physical activity. Surely, with the age factor and assortment of physical limitations, it is rather surprising to see such an active group of seniors. The survey responses included a wide variety of types of exercise and physical activity that the seniors participated in including walking, stretching, aerobics courses, physical fitness classes, group exercises, Tai Chi, floor exercises, flexibility and balance strengthening, and finally chair motion exercise.

In Hawaii, two of the most common chronic illnesses that continue to affect more and more people each day are hypertension and diabetes. Hence, it was not hard to predict that diabetes and hypertension would be the leading chronic diseases prevailing over the members of the Senior Companion Group. In fact, over half of the participants confirmed that they were

suffering from a chronic disease, while only a small proportion of the participants reported being free of disease. It was no surprise that such a large number of these seniors are currently suffering from chronic illnesses as the elderly population continues to be one of the most targeted groups for the onset of disease.

The senior participants were also asked about their familiarity and participation with Supplemental Nutrition Assistance Program (SNAP). Nearly 30% of the seniors said that they were a part of SNAP. Many of the participants verified that while they are not a part of SNAP, they have heard of this program before, and thus are at least aware of the available services. SNAP is not one of the programs in which the elderly population has relied upon heavily mainly due to a lack of exposure to the program, and thus not being conscious of the possible benefits and assistance the program has to offer. In 2011, SNAP served an average of more than 3.4 million households with elderly individuals over the age of 60 years old each month, which is less than one-third of eligible older adults. The average SNAP benefit was $144 for households with elderly individuals, compared to $307 for households without elderly individuals.

After breaking down the survey results of the Senior Companion Group and researching Hawaii's elderly population, one of the common findings is that the senior population is lacking in their knowledge of healthy eating habits and a proper diet regime based on the dietary guidelines, and in turn have developed poor dietary customs including an increased consumption of foods high in fat, sugar, and sodium, and ultimately refraining from consuming nutrient dense foods. Hence, our group felt that a possible intervention solution

for the Senior Companion Group, and perhaps for the rest of Hawaii's elderly population is to carry out a food and nutrition education curriculum and cooking class demonstrations. Potential topics that could be covered in the educational program include guidance on how to properly make use of the dietary guidelines and MyPlate, demonstrating how to read food labels as a part of improving food selection, ways to include more fruits and vegetables in daily meals, the importance of moderation, as well as how to ensure food safety. As far as the cooking classes, it is imperative to display healthy food choices and easy-to-make recipes for the seniors. Cooking demonstrations focusing on healthy food preparation methods and simple, quick cooking tactics would enhance and develop the seniors' cooking skills and promote healthy eating habits and improve their quality of life.

Even so, in order to inflict change in such a large group of seniors and make the goals and intervention strategies more achievable, collaboration with other local programs sharing the same goals and values helps to accomplish the project's mission. The Nutrition Education for Wellness (NEW) program has created a nutrition education curriculum specifically for older adults in Hawaii called the "Good Grinding for Wise Dining" program. The curriculum of the "Good Grinding for Wise Dining" program is based on the dietary guidelines and food guidance system, and ultimately promotes healthy eating manners through creative and amusing messages and other evidence-based tactics. By working hand in hand with the Supplemental Nutrition Assistance Program (SNAP), the NEW program plans to put into practice the "Good Grinding for Wise Dining" course in all congregate meal sites.

In line with this, the “Good Grinding for Wise Dining” curriculum would be an effective course for the target population of the Senior Companion Group. After conducting a nutrition assessment survey addressing the target population’s eating habits, physical activity level, and basic lifestyle practices, it is clear that there are areas that are lacking and in need of improvement. Majority of the senior participants of the assessment survey noted that they had no guiding principles in their customary dietary routine. Hence, the ‘Good Grinding for Wise Dining’ educational approach will undoubtedly serve as a fun and interactive method that will not only entertain the Senior Companion Group, but at the same time instruct a susceptible group of seniors on simple, practical means for living healthy lives. After teaching the ‘Good Grinding for Wise Dining’ tutorials to the senior group, we plan to use ‘Impact Evaluation’ strategies to measure the effectiveness of the educational program by conducting a follow-up survey that would examine any positive changes in specific variables of the Senior Companion Group including beliefs, attitudes, decision-making skills, self-esteem, self-efficacy, and overall knowledge of a healthy eating routine that may in due course help preserve the dignity and independence of the target population.

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