

**I ALREADY EXIST, I'M HERE TO "LIVE": NURSING HOME RESIDENTS' SELF-  
DETERMINATION ATTITUDES AND BELIEFS FOLLOWING A DIABETIC MEAL  
PLAN**

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Submitted to the Graduate Faculty of  
the School of Education in partial fulfillment  
of the requirements for the degree of  
Doctor of Education

University of Pittsburgh

2019

UNIVERSITY OF PITTSBURGH  
SCHOOL OF EDUCATION

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**I Already Exist, I'm Here to "Live": Nursing Home Residents' Self-Determination  
Attitudes and Beliefs Following a Diabetic Meal Plan**

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University of Pittsburgh, 2019

At least 60% of nursing home residents are diagnosed with a chronic disease. Chronic diseases require ongoing medical treatment and need to be managed with diet. If not treated and managed, chronic diseases can limit daily living activities, leading to poor quality of life. Therapeutic diets such as low sodium, cardiac, and diabetic meal plans are usually necessary to manage chronic diseases. However, these meal plans are blamed for decreased intake and increased risk of malnutrition in the nursing home population. The recent culture change seen in nursing homes resulted in the liberalization of diets. However, to maintain self-determination, residents are requesting more restrictive meal plans to manage their chronic conditions and more control of their therapeutic selections. This ethnographic study investigates the perception of nursing home residents with diabetes following restricted diets' as it relates to meal choice, food/food service satisfaction, support for self-determination, and how nursing home residents with diabetes manifest self-determination. Sunny Peak Living Center in Ross Township is one of four non-profit Allegheny County nursing homes in the Pittsburgh area dedicated to enhancing quality of life of residents and families. Resident observations took place at meal time, council meeting, and socials for over 11 weeks. Interviews were conducted with 12 Caucasian, cognitively alert residents, diagnosed with diabetes and prescribed a Consistent Carbohydrate Diet, including 7 men and 5 women, ranging in age from 64-94. Semi-structured audio-recorded interviews were

transcribed and analyzed using constant comparison to develop themes. Residents perceive therapeutic diets as helpful in the treatment of diabetes and feel diets are necessary to maintain health and food service satisfaction is maximized by choice. Residents manifest self-determination by exercising meal choice and expressing preferences and opinions about food/foodservice satisfaction during meals as well as socials and resident council.

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## Preface

I could not have achieved my current level of success without a strong support group. I would first like to express my sincere gratitude to my advisor Dr. Fertman for his mentorship, support, and guidance. Thank you for pushing me to be the greatest me that I can be, I will forever be grateful. Also, I would like to thank my committee members Dr. Davis and Dr. Hutcheson for their guidance and support. I would like to thank Dr. Ross for her mentorship, encouragement, and support. You have helped me more than you know. I would like to thank my supervisor Monique for her excellent guidance and support during this process. To my other colleagues, I would like to thank you for your wonderful cooperation as well. It was always helpful to bat ideas about my research around with you.

To my mom, thank you for always having my back, even when I'm wrong, I love you. I would like to thank my husband, my best friend, for always believing in me, encouraging me, and never letting me give up. To my children, my best friend; my favorite; and my ride or die; let this inspire you, you can do anything.

This dissertation is dedicated to my grandmother Rose Lee Hopson whom has inspired my passionate interest in diabetes.

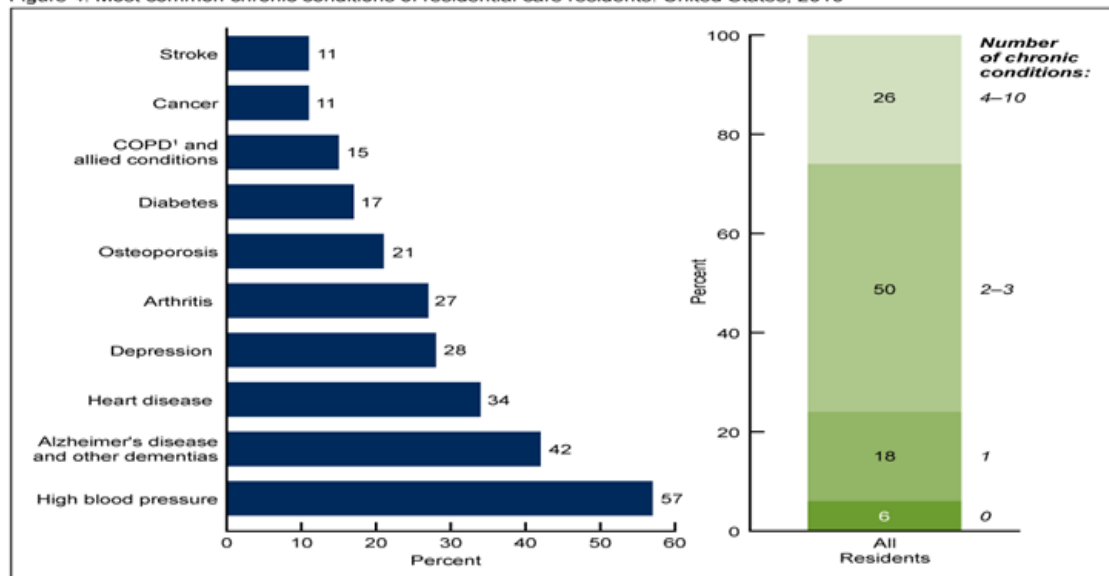
## 1.0 Topic of Interest

Chronic diseases have replaced acute illnesses as the leading health problem of nursing home residents because people are living longer with the consequences (Institute on Aging, n.d.). Chronic diseases are defined as diseases lasting three months or more and generally cannot be prevented by vaccines or cured by medication; are of long duration and generally slow progression; and do not just disappear (World Health Organization, n.d.). The four main types of chronic diseases are cardiovascular diseases (i.e. heart attacks and stroke), cancers, chronic respiratory diseases (i.e. chronic obstructed pulmonary disease (COPD) and asthma) and diabetes. Chronic diseases require ongoing medical treatment and some need to be managed with diet. The most common chronic diseases seen in the nursing home population that require dietary management are hypertension, heart disease and diabetes (Figure 1.). Fifty-seven percent of nursing home residents are diagnosed with hypertension, 34% with heart disease, and 17% with diabetes (Centers for Disease Control and Prevention, 2010). If not treated and managed, chronic diseases can limit daily living activities, leading to poor quality of life.

Most residents are admitted to nursing homes because of a disability with activities of daily living (ADLs) (Health in Aging, 2017). Over 80% of nursing home residents need help with three or more ADLs such as dressing and bathing; 90% of residents who can walk need assistance or supervision; more than half of residents have incontinence (either bowel or bladder); and more than a third have difficulty with hearing or seeing (Health in Aging, 2017). In addition to physical problems, mental conditions are common in nursing home residents; at least one-third of nursing home residents have problematic behaviors including verbal and physical abuse, acting inappropriately in public, resisting necessary care, and wandering (Health in Aging, 2017).

Communication problems are common—almost half of nursing home residents have difficulty both being understood and understanding others (Health in Aging, 2017). More than three fourths of nursing-home residents have problems making daily decisions, and two thirds have problems with memory or knowing where they are from time to time (Health in Aging, 2017). These problems however do not affect the ability of nursing home residents to participate in making decisions about their meals.

Figure 4. Most common chronic conditions of residential care residents: United States, 2010



<sup>1</sup>Chronic obstructive pulmonary disease.  
 NOTE: Cases with missing data are excluded; see "Data sources and methods" section for detail.  
 SOURCE: CDC/NCHS, National Survey of Residential Care Facilities, 2010.

Figure 1 Most Common Chronic Conditions of Residential Care Residents

Vaillancourt et al. (2012) examined the extent to which dietitians involve patients in decisions pertaining to their dietary treatment. The researchers used OPTION scale, a third-observer instrument designed to assess patients' involvement by examining specific health professionals' behaviors (Vaillancourt et al., 2012). The researchers found that most often the dietitians did not involve patients' in decisions regarding their dietary treatment. Research suggests that health outcomes are optimized when health practitioners support patient autonomy, perceptions of competence, and a sense of connection with health providers (Pedlog & Brown, 2016).

### **1.1 Problem Area**

Therapeutic diets (diets that eliminate, decrease, or add certain substances) are usually necessary to manage chronic diseases. However, these meal plans are blamed for decreased intake and increased risk of malnutrition in the nursing home population; claiming that most residents with evidence of malnutrition were on restricted diets that have the risk of discouraging intake (Centers for Medicare and Medicaid Services, 2011; Tariq, Karcic, Thomas, Thompson, Philpot, Chapel, Morley, 2001).

The recent culture change seen in nursing homes and other long-term care facilities highlights the liberalization of diets and honoring preferences. This movement takes on the assumption that changing the authority of health care decisions will improve quality of life for nursing home residents. The previous practice of practitioner driven decision making was perceived to decrease residents' quality of care by requiring restricted diets that were not appealing, therefore causing decreased intake and increased risk of malnutrition in already

compromised individuals. As a result, the Centers for Medicare and Medicaid Services (CMS) implemented new dining standards that encourages residents to express what they want to eat, when they want to eat, and where they want to eat (Centers for Medicare and Medicaid Services, 2011). The assumption is that this will increase appetite and quality of life

Changes have been initiated to enhance the dining experience in response to culture change and to improve meal satisfaction/intake. Facilities have increased access to food like at home and have changed dining style from the traditional institutional setting to restaurant style dining, family dining, neighborhood dining, and buffet style dining (Bowman, 2010). Additionally, some facilities have made physical changes to the dining environment such as lighting, use of color, contrasting plate and table color, music, and other environmental factors that affect the dining environment (Bowman, 2010; Hung, Chaudhury, & Rust, 2015).

Other changes that have been initiated include transition from a non-concentrated sweets diet that eliminates high sugar items like desserts to a consistent carbohydrate diet that is less restrictive to treat diabetes in nursing home residents. Tariq et al. (2001) found that a diet with consistent amounts of carbohydrates will not affect glycemic control. Therefore, sucrose containing items have been included in the diet to add to quality of life, improve residents' satisfaction and intake, and reduce the likelihood of malnutrition.

Although therapeutic diets are perceived to decrease residents' quality of care by requiring restrictions that are not appealing, causing decreased intake and increased risk of malnutrition in already compromised individuals; more alert and oriented residents have requested to have a more restrictive diet and more control of their therapeutic selections to manage their chronic disease. For instance, many want to count carbohydrates like they did at home or were taught to do in the

hospital before admission into the nursing home. This is where it is important to exercise the residents right of choice to follow therapeutic diet.

The additions made to the dining environment and dining style help to increase satisfaction with meals and satisfaction with foodservice, but lack the sense of belonging, supporting independence, and respect or viewing mealtimes from the resident's perspective (Reimer & Keller, 2009). Prohibiting residents' self-determination increases feelings of not being treated like an individual, not having basic needs fulfilled, and increased dependence (Hammar, Dahlin-Ivanoff, Wilhelmson, & Eklund, 2014). Resident perspectives are especially important in chronic disease management since changes in quality of life can occur as the disease progresses, as well as with advancing age. As older adults become more dependent on others to care for them, their opportunity to be self-determined is challenged and is stressful for them (Breitholtz, Snellman, & Fagerberg, 2012). Due to lack of information and communication, as well as organizational barriers such as time and staffing, health care professionals do not fully practice and respect nursing home residents' self-determination. It is hypothesized that meal satisfaction and quality of life of residents prescribed therapeutic diets can be maintained if person-centered models are centered in self-determination.

## **2.0 Literature Review**

### **2.1 Introduction**

Nursing home facilities are changing the way they look and operate, to a more home like environment, aiming to improve residents' quality of life. Quality of life is currently the best measure of the impact of health care on individuals and is the driving force behind recent culture change movements seen in long-term care (services that assist in meeting medical and non-medical needs of individuals with chronic illnesses/disabilities who cannot care for themselves for long periods). Food enjoyment and the quality of foodservices in nursing homes affects quality of life of residents. Dissatisfaction with meals correlates with decreased appetite and decreased meal intake which puts residents at an increased risk for malnutrition. It is important to understand what affects residents' satisfaction and their expectations of foodservice services. Understanding these factors can help facilities make improvements that can increase quality of life. Most quality of life domains are positively related to resident satisfaction and the positive relationship between food enjoyment and quality of life. (Burack, Weiner, Reinhardt, & Annunziato, 2012)

Meal and foodservice satisfaction are important determinants of quality of life but just as important is the ability to make one's own decision about food choices, or self-determination. Studies show that residents express their frustration with the lack of independence through anorexia, meal refusal, refusal to follow therapeutic diets, continuous eating, and complaints about the food (West, Oullet, & Ouellette, 2003). Studies indicate that residents rate satisfaction with meal and meal service high on things that matter the most. A survey of the literature revealed many approaches, models, and concepts that are the current practices in nursing homes that affect



quality of life. This research aims to use the self-determination theory to gain perspectives of residents, to find ways to encourage autonomy, increase quality of life, and maintain satisfaction in meal planning and food choice.

## **2.2 Culture Change**

Culture change is the driving force behind many of the recent changes seen in long-term care. Culture change is defined as “a movement that seeks to create an environment for residents, which follows the residents' routines rather than those imposed by the facility” and “person-directed values and practices where the voices of elders and those working with them are considered and respected and both the older adult and caregiver are able to express choice and practice self-determination in meaningful ways at every level of daily life” (National Long-Term Care Ombudsman Resource Center, n.d.; Pioneer Network, n.d.). The culture change movement is responsible for the development of several different approaches, models, and concepts to improve quality of life such as: resident-centered care, shared decision making, and resident-centered dining. Culture change embodies informed choice and having options. This results in a shift in patient care from the tradition of being controlled by healthcare professionals, to self-directed living. The thought behind culture change is a place that a resident calls home should nurture the human spirit as well as meet medical needs (National Long-Term Care Ombudsman Resource Center, n.d.).

In the early 1980's the National Citizens' Coalition for Nursing Home Reform emphasized residents' rights, marking the beginning of the culture-change movement (Koren, 2010). The 1987 Omnibus Budget Reconciliation Act helped to personalize nursing home care (Shield, Looze,

Tyler, Lepore, & Miller et al, 2012). Growing public concern about the quality of care provided by nursing homes caused the Omnibus Budget Reconciliation Act (OBRA) to be signed into law in 1987. This law included provisions such as: reducing the use of physical and chemical restraints; new uniform Medicare and Medicaid certification standards; focusing on patients' quality of life in addition to quality of care; promotion of the physical, mental, and psychosocial well-being of each resident; and promotion of quality of life, choice, self-determination, and rights of each resident. In addition, the law requires states and the federal government, through the survey process and enforcement system, to evaluate whether each resident is receiving care which promotes the highest practicable well-being (National Long-Term Care Ombudsman Resource Center, n.d.). Nine years after the passing of OBRA, the National Citizen's Coalition for Nursing Home Reform convened a group of long-term care experts to address fundamental flaws in the law. From this original meeting, the Pioneer Network was formed in 1997 which called for movement away from the system-centered model of care to a community-based model. Culture change has brought upon more care activities being directed by residents, collaborative decision making, and eliminating the typical hierarchy and management systems (Koren, 2010). Change in demographics, market factors, satisfactions, surveys, and state-driven quality improvement efforts have fueled the motivation for some facilities to implement culture change practices.

The challenges implementing culture change in facilities are associated with physician workload, misaligned incentives, concerns of risk and safety, lack of advanced care planning, and lack of continuity in health records (Smith et al., 2016). In a study conducted by Shield et al. (2014) nursing home administrators say that costs and physical building structure constraints contribute to challenges. For instance, the culture change to resident-centered dining can require the addition of kitchenettes, which requires additional resources that may not be available. An

added burden are resources (cost/space) needed for construction to accommodate residents during physical renovations. Facilities with larger staff and resident populations may find it difficult to relocate everyone.

Nursing home administrators have experienced resistance from veteran staff who are used to doing the same things the same way, and do not want to change (Shield et al., 2014). Staff reported concerns that changes to implement culture change would increase workload with no additions made to staffing.

In a study by Hung et al. (2016), weight gain (although not proven to be related to culture change), posed a challenge. With changes to resident dining that encourages meal preferences, residents choosing when, what and where to eat, and liberalizing diets, weight changes can be possible. Similarly, Kogan et al. (2016), found that person-centered care approaches did not account for individual preferences and needs of older adults with chronic illnesses and functional limitations.

### **2.2.1 Quality of Life**

Many nursing homes are transitioning from a practitioner directed care model to a resident directed care model focused on quality of life. Studies have found that health, physical capabilities, personality traits, social isolation, lack of self-esteem and economic deprivation are critical to quality of life (Jeong & Seo, 2013). Quality of life domains such as autonomy, dignity, food enjoyment, functional competence, individuality, meaningful activity, physical comfort, privacy, relationships, security, and spiritual well-being, are significantly positively related to satisfaction (Burack, Weiner, Reinhardt, & Annunziato, 2012). A major part of quality of life is a sense of autonomy and maintaining independence. Maintained autonomy is important for physical

and psychological well-being and has proven to decrease mortality (Bangerter, Heid, Abbott, & Van Haitsma, 2016). The researchers conducted a study using the Preferences for Everyday Living Inventory, which examines the content, meaning, and importance of psychosocial preferences of residents. Residents who felt that they had free choice reported significantly higher satisfaction with care. In those residents that reported no choice or some choice, the results showed that the availability of choice did not equate to the residents' perception of greater choice but rather were limited by environmental factors like facility policies and did not necessarily consider opportunities that the residents find favorable. For example, a participant reported that they had the choice whether to exercise or not but had no choice about what exercises she wanted to do. A study by Barnhart et al. (2016) used a semi-structured interview to gain perspectives of nursing home residents on the burden of diabetes. Residents report the dietary restrictions as a burden, understanding the need for the restrictions, residents report "cheat days" or consuming restricted food items little at a time instead of in one sitting.

In a focus group conducted by Hung, Chaudhury, & Rust (2015), residents expressed the ability to be able to wheel over to the coffee station and get a cup of coffee by themselves without having to ask a staff member to get it for them. The feeling of familiarity, feeling at home, feeling comfortable, and enjoying their physical and social environment are all things that contributes to an increased quality of life. When asked about satisfaction with food related life, residents rated "food and meals as positive elements in their life" as high. However, when asked if their life in relation to food and meals are close to their ideal, the rating was lower. Quality of life is influenced by the residents' ability to perform activities of daily living. Those individuals needing more help reported a lower quality of life score. Residents reported that enjoying meals, having healthy meal options, and having a variety of menu choices were a priority.

Social experiences while dining is another important factor in determining quality of life among older adults in nursing homes. Studies show that residents complain about rushed and overly stimulated dining experiences which increased anxiety and agitation (Hung et al., 2015). The addition of family style meals and homelike décor increased social interaction and intake. Residents were observed appearing to enjoy the meal and engaging in conversations with peers. Residents reported eating with others was an important part of daily pleasure. Hung et al., (2015) stated that the social aspects of mealtimes are vital in supporting self-identities. Even the smallest changes to the physical dining environment can increase intake and satisfaction. Changes in lighting, adding music, and aromas proved to be effective (Hung et al., 2015). The changes in physical environment also showed marked changes in the staff, increasing patience and more willingness to help.

### **2.2.2 Resident-Centered Care**

Resident-centered care is an approach used in nursing homes to follow the culture change movement. Resident-centered care means that nursing home residents are supported in achieving the level of physical, mental, and psychosocial well-being that is individually practicable and keeping the person at the center of the care planning and decision-making process (Nursing Home Quality Campaign, n.d.). Resident-centered care encourages residents to direct as much of their care as possible by making their preferences known and making choices about the things that have a personal effect on them (Bangerter et al., 2015). The American Geriatrics Society Expert Panel defines resident-centered care as “individuals’ values and preferences are elicited and guide all aspects of their health care” and requires a collaboration of people who are important to the residents and all relevant providers (Smith et al., 2016).

Key dimensions of resident-centered care include: encouraging choice, dignity, respect, self-determination, and purposeful living (Li & Porock, 2013). To incorporate this change, facilities are eliminating nurses' stations and overhead paging to provide a more home-like atmosphere, making bed time hours more flexible, and making Certified Nursing Assistant (CNA) assignments more consistent for closer relationships (Shield et al., 2014). Residents have a higher satisfaction with things that they perceive to have a choice about (Bangerter et al., 2015). Residents have a choice between predetermined items within a diet plan, however are not afforded the opportunity to choose the meal plan.

The Eden Alternative model, the best-known resident-centered model in the United States, aims to eliminate loneliness, helplessness, and boredom (Li & Porock, 2014). This is done by transforming the environment to a more home-like atmosphere with plants, animals, and intergenerational programs. The Eden Alternative philosophy asserts that no matter how old we are or what challenges we live with; life is about continuing to grow.

The Green House/Small House model also aims to change physical environment with revising staff configurations and emphasizing companionship under normal rather than therapeutic circumstances (Li & Porock, 2014). The Green House/Small House model's small-scale community of groups of ten or less residents makes it different from other models. The model works with residents and care workers to enhance other principles and models already being used.

Another model, the Evercare model, focuses on improving the coordination of care (Li & Porock, 2014). This model was developed by two nurse practitioners who saw that families of newly admitted nursing home residents were having a hard time coordinating care for their primary physicians to see them regularly. The model focuses on treating the whole person instead of their illness or disease only. The model follows the principles that nurse practitioners would help

orchestrate and provide care with emphasis on a patient's psychosocial well-being while clinicians would monitor the “big picture” of a patient's physical, social, and psychological needs. The model minimizes patient transfers of care and provides a greater proportion of care within the nursing home. In this model, clinicians place a strong focus on prevention, working with nursing home staff to help ensure regular assessments and early detection. Care teams advocate for patients and help them get the most from their health insurance benefits. Families are encouraged to be more involved in a patient's care, building stronger and more consistent communication among the family, their care team, and nursing home staff. The model shows positive effects on patients, families, and facilities (specifically nursing homes where the model has helped to keep residents out of the hospital) (Kappas-Larson, 2008).

### **2.2.3 Shared Decision Making**

Resident-centered care highlights shared decision making. In shared decision making, health-related decisions are shared by the resident and health professionals and is the primary goal of person-centered care (Vaillancourt, Legare, Lapointe, Deschenes, Desroches, 2012). This includes making choices about what to wear, when to go to bed, what activities they want to do, what and where they want to eat. Residents have more direction over care, increased engagement, and continue to live in a way that is meaningful to them. The implementation of resident-centered care practices also proves to have some benefits for the staff. Staff form strong relationships with residents and their families and can anticipate the person's needs and adapt accordingly. In addition, staff work more efficiently in person-centered care environments. When nursing homes have implemented resident-centered care practices they: yielded better quality outcomes; gained referrals from people who had a good experience and recommended the nursing home to others as

a place for care; had better staff retention due to a strong relationship between staff and residents (Nursing Home Quality Campaign, (n.d.)).

#### **2.2.4 Resident-Centered Dining**

Within resident-centered care is the concept of resident-centered dining. Resident-centered dining is driven by the residents needs and desires (Very Well Health, n.d.). Nursing homes are moving away from set meal times and cyclic menus with limited alternates (Abbey, Wright, & Capra, 2015). Instead, facilities are now adding buffet stations, updating china, and using cloth napkins in place of bibs (Shield et al, 2014). Evidence shows that the environment and design of dining areas play a key role in resident-centered care by enhancing the quality of their dining experience (Hung et al., 2015). Family style meals and home-like wall décor increases social interaction and improves intake at meals. These changes in the environment provide a positive atmosphere for staff which may impact the care provided.

Because of the recent culture change movement, the Centers for Medicare and Medicaid Services (CMS) developed new dining standards for nursing homes, supporting individualized care and self-directed living versus traditional diagnosis-focused treatment (Centers for Medicare and Medicaid Services, 2011). Between 1992 and 2009 admissions to nursing homes went from 2.8-8% for Medicare beneficiaries (Institute on Aging, n.d.). The centers for Medicare and Medicaid Services oversee programs and governs rules and regulations for these participants. Including the new dining standards. Nursing homes are required to be in compliance with requirements set forth by CMS to receive payment under the program. Medicaid coverage is available only for services provided in a nursing home licensed and certified by CMS as a Medicaid Nursing facility (Medicaid, n.d.).



The protocol developed by these new practice standards include determining the diet with the resident taking into consideration his/her informed choices, goals and preferences, rather than exclusively by diagnosis. It also considers the residents' patterns and routines for socialization (i.e. eating alone or with others) and physical support (i.e. adapted utensils, assistance with cartons and/or cutting). When determining the diet for the resident, practitioners should assess the clinical condition of the person, including food satisfaction and level of control and independence. The timing of meals and meaning/value of the dining experience is important. The new dining practice guidelines recommends that unless a medical condition warrants a restricted diet, practitioners should consider starting the resident on a regular diet and monitor tolerance, thus empowering and honoring the resident first and the interdisciplinary team second. The standards highlight careful consideration of self-determination. Although a person may not be able to make decisions about certain aspects of their life, this does not mean they cannot make choices in dining.

### **2.3 Food and Foodservice Satisfaction**

Poor satisfaction with food and/or foodservice can significantly determine food intake in the nursing home population. As mentioned earlier, when investigating quality of life, food enjoyment and social experiences while dining, positively correlates with quality of life. Good food can provide the resident with sensory and psychological pleasure, and may enrich their lives (Jeong & Seo, 2013). The Resident Foodservice Satisfaction Questionnaire, a novel measure of resident foodservice satisfaction was developed to provide evidence of changes to food services that may improve resident satisfaction and possibly assist in the prevention of malnutrition (Wright, Capra, & Connelly, 2010). The questionnaire was administered to 313 patients/residents

and found that foodservice satisfaction was more related to patient characteristics and structural and systems-related foodservice variables than food quality (Wright, Connelly, Capra, & Hendrikz, 2011). Some of the determinants of satisfaction include tableware not missing on tray, dining room employees are friendly, respectful, prompt, and willing to help (Jeong & Seo, 2014). Jeong and Seo (2014) investigated the influence of satisfaction with food-related life and perceived foodservice quality on quality of life. The participants rated foodservice quality as better than normal and regard staff service as important. However, the participants rated food quality lower than service quality. The participants reported little variety in food and not prepared as well as they expected. Another study by Evans & Crogan (2005) assessed the food expectations of institutional food service practices using the Food Expectations Long-Term Care Questionnaire (FoodEx-LTC), a 44-item questionnaire that addresses five domains related to food and foodservice. Overall residents reported satisfaction or somewhat satisfaction with food service, however more than half reported receiving food that they hated, the same food, and food that was cooked the same way and eighty percent report wanting to choose what to eat.

Strathman, Lesser, Bai-Habelski, Overzier, Paker-Eichelkraut, Stehle, and Hesecker (2013) hypothesized that institution-specific factors have a significant impact on the nutritional status of residents. The multi-center, cross-sectional study conducted by the authors considered size of institution, care staff ratio, and daily food budgets. Smaller facilities, low median care staff ratio, and greater financial resources for food were significantly ( $P < 0.05$ ), positively correlated to caloric intake and lower risk of malnutrition (Strathman et al., 2013). Low daily food budgets were significantly ( $P < .05$ ) associated with a higher risk of low BMI ( $< 20 \text{ kg/m}^2$ ). Meal intake was lower in facilities with lower food budgets ( $< \$5.08$  per resident per day) than institutions with higher food budgets ( $> \$5.44$  per resident per day). Decreased food budgets affect the quality and

quantity of food, cooking ingredients, and oral supplements. The decrease in quality of these items can result in decreased intake and increased risk of malnutrition and other nutrition problems.

Van der Meij, Wijnhoven, Finlayson, Oosten, and Visser (2015) believe that food preferences differ between older adults with a good appetite and those with a poor appetite. Using a computer based forced choice food preference assessment, the researchers investigated the preferences between the two groups. Residents with a poor appetite had a higher frequency score for variation compared to the good appetite group. Variation was defined as two or three different types of the same food product with similar color on one plate compared to a single type of food or same type of food containing at least two colors or flavors compared to food of a single color or flavor. Frequency scores were counted for each time selections were chosen for a category. Count scores were higher for variation, color variation, non-dairy, high-fiber, and solid texture. This study showed that residents with poor appetite may have specific identifiable food preferences. Divert et al. (2015) found that changing a single element of the context of meals such as the name of the dish or adding an additional condiment to the table, can be enough to increase both the residents' enjoyment of their meals and the quantities eaten.

Torma, Winblad, Saletti, and Cederholm (2015) argued that organizational factors are of the causes of malnutrition; specifically, the inability to provide adequate nutritional care. The researchers aim was to implement nutritional guidelines into nursing homes using and evaluating two implementation strategies, external facilitation and educational outreach visits. The researchers hypothesized that external facilitation would improve the nutritional status of residents. "Facilitation is a multifaceted instrument that employs task-oriented practical help (explain what kind of help) to more holistic approaches" (Torma, et al., 2015). The external facilitation was a long-term approach where the educational outreach visit was on one occasion.

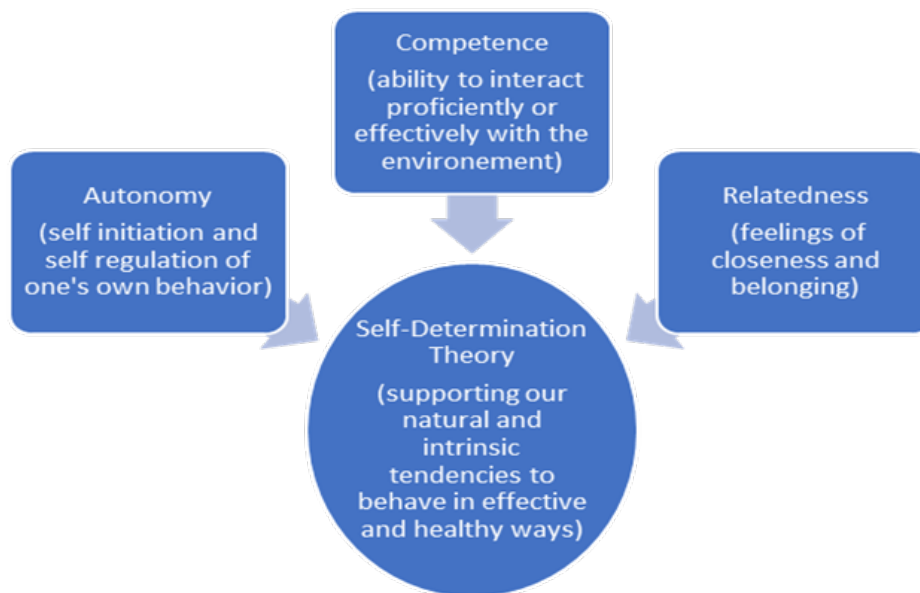
The results showed no significant clinical changes between participants receiving each of the interventions.

Winterburn (2009) developed a food map that identified three routes for potential improvements in dietary practice in nursing homes. The researcher found that improvements could be made in the supply and delivery of food, serving of food, and consumption of food. The researcher argues that the residents' choice and control over food can be improved with the design of new serving products. Through interviews with chefs and nursing staff it was found that nursing homes had appropriate staff and facilities and social celebrations with food were well organized, however residents had limited access to storage of personal food items. The food map showed that residents had no direct contact with food retailers or outside sources of food. The researcher insisted that the marketing from local retailers should include the residents as well as the kitchen staff, ending the one-way street noticed in the food map. This research suggests that residents not only be active in making menu choices but taking it a step further and also having an opinion about where the food is purchased from.

## **2.4 Self-Determination Theory**

The assumption in the culture change movement is that changing the authority of health care decisions will improve quality of life for nursing home residents. The self-determination theory is a motivational theory that examines the socio-environmental factors influencing an individual's tendency toward self-motivated behavior, psychological health and well-being, and task-related performance programs and diet regimens as well as perceived disability (Health Care Climate, n.d.). The self-determination theory suggests that people are motivated to grow and

change by innate psychological needs. The theory identifies three key psychological needs: the need for competence, the need for connectedness, and the need for autonomy (Figure 2.).



**Figure 2 Self-Determination Theory**

The self-determination theory indicates that autonomy is a critical psychological need necessary for personal growth, health, and well-being across the life span. According to Bangerter et al. (2016) a sound understanding of the residents' perception of choice can help maintain their sense of autonomy and can improve overall satisfaction with care, ultimately improving quality of life. The concept of intrinsic motivation, or doing things purely for their own sake, plays an important role in self-determination theory. Research on patient-centered care suggests that health

outcomes are optimized when health practitioners support patient autonomy, perceptions of competence, and a sense of connection with health providers (Pedlog & Brown, 2016).

Research shows that unlike the quality of life and healthy aging constructs, residents perceive life as good based on providers' ability to enhance their physical, social, and psychological well-being while allowing them to maintain their sense of identity, and not specifically related to health or illness (Minney & Ranzjin, 2016). Mahadevan, Hartwell, Feldman, and Raines (2013) found some themes in perceived barriers to optimum nutrition among older adults in congregate living. The researchers found that participants' beliefs about what they should or should not eat were associated with their own personal definition of good health. Participants specifically admit that increased age means that they can eat whatever they want because it's not going to make a huge difference and that if they can't choose what they want to eat then it makes them not want to eat at all. Participants also admitted that they had a general idea of what to eat to stay healthy but requested additional nutrition education to help them improve specific medical conditions.

Curll, DiNardo, Noschese, and Korytkowski (2010) examined patient satisfaction with standard and patient-controlled consistent carbohydrate meal plans. The standard meal plan had limited choices that guided patients toward a heart healthy diet with fewer concentrated sweets. While the patient-controlled meal plan incorporated an unrestricted menu with ongoing monitoring by clinical nutrition staff. Those in the patient-controlled group reported a greater satisfaction with the meal plan compared to the standard meal plan group. This group also showed improvement in adherence to the carbohydrate-controlled meal plan.

## 2.5 Conclusion

Although resident-centered care models encourage liberalized diets, some residents have requested a more restrictive diet to manage their chronic diseases. Residents are prescribed diets based on diagnoses usually without resident input or nutrition education. This is important because the nursing home experience is supposed to mimic the residents' home. Self-determination, i.e. autonomy, competence, and relatedness affect quality of life and satisfaction with meals as much as the actual meal received. It is important to better understand the needs and wants of residents and how the staff, family members and communities can be supportive to maintain autonomy, reduce the risk of poor quality of life, and increase meal satisfaction in those residents who need a restrictive diet to manage chronic disease. Literature suggests that quality of life is directly related to meal satisfaction, which is related to meal choice and that residents report feeling left out when they see others receive certain things and they can't (West, Oullet, & Ouellette, 2003; Barnhart, McClymont, Smith, Au-Yeung, & Lee, 2016). If these same residents were living in the community, they would be encouraged to participate in meal choices to manage chronic diseases. Many studies reveal the importance of resident involvement in meal and menu choices. Kogan et al. (2016), found that person-centered care approaches did not account for individual preferences and needs of older adults with chronic illnesses and functional limitations. Health promotion, the process of enabling people to increase control over, and to improve, their health (World Health Organization, n.d.), is not carried over into nursing homes. Not all residents come to nursing homes ready to die. A pilot study conducted by Krajic, Cichocki, and Quehenberger (2014) found that health promotion in the aging population considers physical, psychological, and social dimensions. The findings indicate that involving residents in making healthy decisions can be feasible in this population with mobility as the biggest barrier. This is often overlooked in the

older adult and nursing home population. An increase in promoting healthy choices in this population helps to increase self-determination by allowing prioritization of residents' own views regarding their conditions and life situations and having an influence on their own care (Hammar, Dahlin-Ivanoff, Wilhelmson, & Eklund, 2014).

The study by Curll et al. (2010) which compared menu selection, adherence to consistent-carbohydrate meal plans (CCMP), glycemic control, and satisfaction between individuals receiving a CCMP and a patient-controlled meal plan, showed that with nutrition education and monitoring, patients can maintain autonomy while following a therapeutic diet.

The goal is that the results from this needs assessment will be used to develop resident care models that encourage self-determination and healthy meal planning in the nursing home population. The number of individuals in nursing homes that have the cognitive ability to make decisions on their own is increasing, the factors that contribute to them not making healthy choices regarding food selection while in the nursing facility require inquiry. This study aims to find ways to encourage self-determination in meal planning and food choice in nursing home residents following a therapeutic diet.



### **3.0 Methodology**

Inquiry questions guiding the study are:

1. How do nursing home residents with diabetes following restricted diets perceive their meal choice, food/food service satisfaction and support for self-determination?
2. How do nursing home residents with diabetes manifest self-determination?

#### **3.1 Setting**

The inquiry setting was Sunny Peak Living Center-Ross (Sunny Peak-Ross). The researcher is the center's full-time registered dietitian. This accessibility allowed for variable visitation and attendance at special functions throughout the study. Sunny Peak-Ross is an Allegheny County run nursing facility in Ross Township; a suburban community adjacent to the northern border of Pittsburgh. The center combines a beautiful park-like setting with easy access to shopping and park recreation. It has been located on the present site for 35 years. The Ross building is one in a group of four non-profit community living centers. The centers pride themselves in providing quality nursing and rehabilitations services through shared values to enhance the lives of the residents, families and community, and aim to provide a close-to-home experience.

The Sunny Peak Living Centers are non-profit and receives funds from The Sunny Peak Foundation. Gifts of money or property are received and maintained by The Sunny Peak Foundation, which was created to raise private funds to help enhance the quality of life of residents

and their families. One hundred percent of all donations are devoted to gifts and enhancements for the Kane Centers and residents.

Sunny Peak-Ross is nestled in the middle of a busy shopping district surrounded by as many as four malls/shopping plazas connected by a busy/highly traveled road; located midway down a hill separating residential streets to the right and busy shopping. The area where the center is located is predominately populated by (94%) Caucasians. To the north is a residential neighborhood of single-family homes with neatly manicured yards lining both sides of the street situated around a neighborhood school. To the south are busy highways and shopping.

Directly across the driveway is the entry to a shopping center equipped with a fitness gym, fast food as well as family restaurants, supermarket, and department stores. As you make your way through the driveway the path divides. To the right two buildings are located on the campus. One with senior living apartments and the other the back entrance to Sunny Peak-Ross. To the left a driveway separates two rows of parking and leads to the front entrance of Sunny Peak-Ross.

Approaching the complex one notices a large, grey brick structure with a circular driveway leading to sliding glass doors. The back of the independent apartments is visible from the driveway. The area surrounding the entrance is adorned with floral landscaping and a row of benches underneath large flowing trees.

As you enter the building a red brick flooring leads you through the front lobby. Walls are painted a seafoam green with a hunter green accent wall with half wooden paneling and railing and floral photos adorning the walls. To the left is office space with multiple smaller offices within. Adjacent to the front room of the office space is an information window alongside a podium type counter with a sign-in book for visitors and a bulletin board. Along the same wall next to the bulletin board is a unisex single stall bathroom. To the right is a sitting area decorated

with five striped cushioned chairs positioned in a circle with a wooden glass top coffee table in the middle. Two additional striped chairs, a floral chair, and a side table are situated directly in front of a large window looking out to the parking lot. Along the wall adjacent to the window is a computer and informational pamphlets on a small desk. Further through the lobby an alcove is to the right that leads to administrative offices and medical records offices. To the left is another sitting area with three floral chairs, a floral sofa, a wooden coffee table, and a side table in front of an electric fireplace. Another office next to the seating area. On the other side of the office is a handicap door that leads to outside patio area and a computer/gaming room across from it. The patio area is bordered by a man-made pond, a covered pavilion area, and several round umbrella patio tables and chairs. The area is enclosed by a tall white picket fence and garden. A set of elevators separate the lobby of offices and resident units. The elevators connect the main floor and the upper resident unit and the first floor. Resident units are divided into a west and east wing capable of housing 60 residents each. The east and west wing are each connected by the resident dining room. Visitors enter through the main entry onto the second floor. Residents live on the second and third floors of the building. The second and third floors are similar, instead of a lobby the elevators divide resident units and a chapel. Each floor houses a library located on the east wing that includes a dining table, sofa, and love seating, flat screen mounted television above a wall electric fireplace. Centrally located on each wing is a nurse's station and two hallways branch from the nurse's station. One coined high hall and low hall based on the ascension of room numbering down each.

The general diet or regular diet provided by the facility is the least restrictive available, providing an average of 2100 kilocalories. Other diets available include no added salt, cardiac (limits fat, sodium, and carbohydrates), and consistent carbohydrates (average 1800 kilocalories

with altered desserts). At Sunny Peak-Ross 73 residents are prescribed some type of therapeutic diet to manage a chronic disease (e.g., diabetes, hypertension), or for calorie restriction for weight loss or weight management. Of those 73 residents, 36 are prescribed a consistent carbohydrate diet to manage their diabetes.

### **3.2 Participants**

The study participant inclusion criteria are a diagnosis of diabetes, prescribed a consistent carbohydrate diet (CCHO), and Brief Interview for Mental Status (BIMS) score of 13-15 which indicates cognition is intact. The BIMS test is used to get a quick snapshot of how well you are functioning cognitively at the time of assessment. The BIMS tests the ability to repeat information through immediate recall and assesses attention, orientation, and short-term memory. Potential participants were identified by review of medical records and diet order records. Identification of potential participants started with determining those prescribed the CCHO diet. Many studies look at independence or choice of meals, but few look specifically at therapeutic diets, particularly CCHO diet and choice. This list was narrowed by identifying those with a diabetes diagnosis and selected BIMS score. The researcher constructed a list of those residents that met inclusion criteria which included residents who receive select menus. These residents were approached and invited to participate in the study. The residents included in the study included seven males and five females. Their ages ranged from 64-94 (with seven in their 60's, four in their 70's, and one in his 90's). A total of 19 residents were approached, with 12 agreeing to participate in the study. Residents with diabetes receiving the CCHO diet was an inclusion to examine the burden of living with dietary restrictions related to diabetes. This group of residents are known to be vocal; some

participating in resident counsel activities. The menu runs on a four-week cycle. Residents whom have lived at the facility for less than four weeks were excluded from the study.

### **3.3 Design**

Ethnography aims to explain people's pattern of life by describing the patterns of that inform their actions. Geertz (1973) describes interpretive ethnography as focusing on the culture of the group, the patterns of meaning that make of the culture. Ethnography is the best method to discover, detail, describe, and explain the lived experiences of people. Spradley (1979) argues that the essential core of ethnography is to understand another way of life from the native point of view. Atkinson and Hammersley (1994) argue that ethnography has the following key factors: a strong focus on exploring the nature of particular social phenomena; a tendency to work primarily with unstructured data; examination of a small number of people; and analysis of data that involves explicit interpretation of the meanings and functions of human actions.

Semi-structured interviews and resident observation help to explain the human needs, intrinsic motivation, individual differences, and psychological well-being of self-determination and food choice as it relates to autonomy, competence, and relatedness of nursing home resident with diabetes. These methods give insight to diabetic residents receiving a consistent carbohydrate diet perceived satisfaction with current food and foodservice practices and perceived self-determination support from the healthcare team. Semi-structured interviews and resident observations enable this inquiry to be composed of empirical research reflective of the nursing home residents experience, attitudes and beliefs as well as examine residents' food and dining experiences in general and as it relates to having diabetes and following a therapeutic diet.

The topic of food choice and honoring preferences to improve food satisfaction has been widely studied, however, little focus has been dedicated to empowering self-determination and meal choice in residents following a consistent carbohydrate diet. Understanding the wants and needs of nursing home residents who may need a therapeutic diet for chronic disease maintenance requires discussion, observation, and inquiry. This inquiry, grounded in the self-determination theory and person-centered care, will allow opportunities for previously disregarded voices to be heard by identifying the wants and needs of this population. It is hypothesized that meal satisfaction and quality of life of nursing home residents receiving diabetic meal plans can be maintained if the facility follows a resident-centered care model centered in self-determination.

### **3.4 Data Collection**

Observations and interviews were selected as the main data collecting strategies. Methodological triangulation, using more than one method to gather data, increases the validity of the study; balancing the strengths and weaknesses of each method. Twelve semi-structured interviews were conducted face-to-face in resident rooms by the principal investigator whom is a paid employee of the facility. The interview process lasted 30 minutes on average and was done in one sitting.

To try to fully understand the lived experiences of the residents at Sunny Peak, the PI observed residents during resident council meetings; mealtimes; and socials. The PI attended one of the monthly resident council meetings. Resident council meetings occur once per month on the third Thursday of the month. Resident council was not held during the month of December due to increased holiday activities. The PI also observed residents on the second and third floors during

lunch. Each floor was observed five times each. Lunch observations were ideal to observe the most residents. All residents eat breakfast in their rooms, and many choose to eat the supper meal in bed. The PI arrived at the dining room early enough to see residents enter for meal time and stayed to observe tray pass and residents as they left. Once per month during the fall and spring months residents eat breakfast in the dining room for the breakfast social. Each floor has their breakfast on a separate day. The PI observed during four breakfast socials, twice (once per two months) on each floor. Breakfast socials were not conducted during December due to holiday activities. The PI also attended one of the monthly birthday parties. The birthday party is one of the more popular activities and resident attendance is high. Residents attend this activity from both floors. Another popular social is the pizza party social. Each floor has a separate pizza party. The PI observed during a portion of the pizza party on each floor.

Interviews were audio-recorded and transcribed verbatim. Study materials were de-identified and stored on a password protected computer following each interview. Field notes collected during observations were transcribed daily following observation. All data (transcripts from interviews and field notes) were uploaded and managed with NVivo 12.

The findings of this inquiry may not be applicable to all nursing home residents. In qualitative research trustworthiness rather than generalizability of the study findings, is an important feature of the research (Lincoln & Guba, 1985). This study sought trustworthiness through credibility and transferability. Credibility can be enhanced through rigorous methods of data collection and analysis and credibility of the researcher (Patton, 1990). The primary investigator is a paid employee of the facility where she is a trusted and viable part of the team. Prolonged engagement and observation, combined with “thick-description” and detail, adds to the credibility of the study (Patton, 1990). The credibility of the researcher was increased by engaging

in “bracketing”, a self-reflective process whereby the researcher recognizes their own a priori knowledge and assumptions and set them aside (Gearing, 2004). Although the findings of this inquiry may not be applicable to nursing home residents in a whole, the reader may decide the extent to which these findings can be transferred to other populations or groups with similar contexts and backgrounds.

### **3.5 Measures**

#### **3.5.1 Resident Observations**

To try to fully understand the lived experiences of the residents at Sunny Peak, the PI observed residents during mealtime, resident council meetings, and socials. During observations detailed field notes were written describing the “everyday observable”, taking everything in by observing activities, settings, behaviors (Graue & Walsh, 1998), and interactions as they pertained to food and foodservice (Appendix C). Over time the researcher focused on preliminary patterns and themes that emerge in relation to staff and resident interactions and resident outward expressions of wants and needs related to food and foodservice. Participant observation is beneficial to immerse oneself into a community to gain a deep knowledge about the intricacies and inner workings that could not be obtained from literature or a type of method where information is learned second-hand. It enables the researcher to see the culture without imposing their own social reality on that culture.



### **3.5.2 Semi-Structured Interviews**

A semi-structured interview was conducted with twelve residents to determine what nursing home residents are looking for to improve meal satisfaction and support autonomy, if residents are receiving support for self-determination, and to learn about the experiences of nursing home residents with diabetes, following a consistent carbohydrate diet (Appendix D). Through individual interviews, residents were given the opportunity to speak openly about their dietary experiences and give insight on their wants and needs in their “home”. The protocol used for the interviews was adapted from the Health Care Climate Questionnaire (HCCQ) (Self-Determination Theory, n.d.); an instrument used to assess patients’ perceptions of the degree which their healthcare team is autonomy supportive; an interview protocol used by Barhart, et al. (2016) that measures to assess residents’ perceptions of the burdens of living with diabetes and diabetes treatments; and the FoodEx-LTC (Crogan & Evans, 2005); an instrument that measures resident expectations, perceived control over food and food service procedures, and the organizational issues affecting food and food service in nursing homes.

#### **3.5.2.1 Health Care Climate Questionnaire (HCCQ)**

The Health Care Climate Questionnaire (HCCQ) (Self-Determination Theory, n.d.) is an instrument used to assess patients’ perceptions of the degree which their healthcare team is autonomy supportive (Appendix E). Other variants of the questionnaire are available depending on the issue being examined. The questionnaire can be used to assess patients’ perceptions of the degree to which their specific doctor is autonomy supportive, or it can be used to assess patients’ perceptions of the degree to which their team of health care providers is autonomy supportive. The HCCQ would be used to assess the health care team if patients are seeing several providers within

a facility to treat a particular condition. If a researcher were interested in the relation between physicians' interpersonal style and their patient's motivation, behavior, and health, the questionnaire is best used with respect to the individual doctor. If the research question concerns the interpersonal climate of a clinic or group of providers, the word providers or practitioners is substituted for physician or doctor. The residents at Sunny Peak may see a physician, a nurse, and a dietitian, all working together to treat their diabetes. Therefore, healthcare team will be used for this inquiry. The HCCQ consists of 15 items on a seven-point Likert scale, with scores ranging from 1=strongly disagree to 7=strongly agree. Higher average scores represent a higher level of perceived autonomy support. The HCCQ also has a short form of six items. The shorter form will be adapted for use in this inquiry because of possible respondent burden. For this inquiry questions were changed to yes/no and open ended to allow for probing. Items include judgments about whether physician provided residents with options about their health and tried to understand their perspective before suggesting medical changes.

### **3.5.2.2 Diabetes Interview Protocol**

The diabetes interview protocol was used by Barnhart, et al. (2016) to assess residents' perceptions of the burdens of living with diabetes and diabetes treatments (Appendix F). This protocol was designed to ask residents open-ended questions about their experiences living with diabetes, followed up with additional questions that encourages residents to describe their feelings about the diabetes care that they receive, what influences their decisions for treatment, and what their treatment goals are. Semi-structured interviews provide residents an opportunity to express their attitudes and experiences openly by providing general open-ended questions and allowing room for follow-up questions. The protocol was adapted by eliminating questions that does not apply to research questions.

### **3.5.2.3 Food Expectations Long-Term Care Questionnaire (FoodEx-LTC)**

The FoodEx-LTC (Crogan & Evans, 2005) is an instrument that measures resident expectations, perceived control over food and food service procedures, and the organizational issues affecting food and food service in nursing homes (Appendix G). It is designed to be self-administered or interviewer administered and can be used throughout the long-term care setting. The FoodEx-LTC was developed from results of an extensive preliminary qualitative study in which 20 in-depth interviews were conducted with nursing home residents regarding positive memories associated with food, and strengths and weaknesses of the food and food service in the facility. The FoodEx-LTC consists of 44 items on a four-point Likert Scale, measuring five domains related to food and foodservice procedures. The coefficient alpha scores ranged from .69–.87 and test–retest correlations ranged from .55–.89, dependent upon domain. A shortened version was developed because of possible respondent burden (Crogan & Evans, 2006). The researchers removed 16 redundant items and those with inter-item correlation of .25. The validity and reliability of the new instrument was tested with a sample of 61 nursing home residents. Coefficient alpha scores ranged from .65 to .82, and test-retest correlations ranged from .79 to .88, dependent upon domain. The shortened form consists of 28 items on a four-point Likert scale, with scores ranging from 1=true to 4=false. Higher scores indicate greater satisfaction. Four domains are measured: Enjoying Food and Food Service, Exercising Choice, Cooking Good Food, Providing Good Food Service. The questionnaire was adapted by changing the format of the questions to yes/no and open ended to allow for probing and eliminating questions that does not apply to research questions.

### 3.6 Analysis

Interview transcripts, along with field notes from observations complete the data record. Interview transcripts and field notes were analyzed and coded according to constant comparison method (Glaser & Strauss, 1967). Each piece of data was compared and contrasted with other data to develop a theory grounded in the data. Using an inductive process, data was compared and contrasted with other data to gain a better understanding of the categories that exist within the phenomenon (i.e. nursing home residents self-determination attitudes and beliefs following a diabetic meal plan). The coding process began with open coding, transcripts and field notes were read line by line to identify codes related to the research questions. Simple codes were developed for discrete items/chunks of text. Then axial coding was performed to assign categories based on patterns and relationships that are evident throughout the codes. Individual codes with shared characteristics were grouped together. Lastly, selective coding was used to identify and define core category and all other categories were placed in relation to that phenomenon.

## **4.0 Findings**

Qualitative analysis of the study data yielded four overarching themes: Exercising Choice and Preferences, Perspectives of Current Diet Prescription, Feeling Included, and Dining Expectations. Twelve residents, seven men and five women, were recruited to participate in face to face interviews. The age of the participants ranged from 64-94. Observations at mealtime, resident council meetings, and socials were also conducted to answer the inquiry questions that guided this study. During observations detailed field notes were written describing the “everyday observable”, i.e. activities, settings, behaviors, and interactions as they pertain to food and foodservice. Interactions observed included staff and resident, as well as resident and resident. The following section details the key themes and features selected quotes drawn from individual interviews with residents. Pseudonyms are used to protect the identity of study participants.

### **4.1 Theme 1: Exercising Choice and Preference**

Exercising meal choice allows residents to maintain a sense of autonomy. Maintaining autonomy and independence is crucial in how a resident will perceive their quality of life. Some residents report making meal choices by turning in weekly selections on the select menu. Others report looking at the menu that is posted for the week and asking someone to call down to the kitchen to select the alternate. Either way, residents feel satisfied that they can decide about their meal. Resident centered models highlight the importance of allowing residents to exercise choice

and honoring their preferences. Residents report that it is important to have a choice in their meals because then their preferences can be heard:

*“It is very important that I get to choose my meals. So, I don’t get the same stuff all the time.”* (Resident 8)

*“Oh, yes, it is very important to me that I get to choose my menus. If there something I don’t like or can’t eat for whatever reason, I could lose weight. It could affect my health.”*

(Resident 7)

*“It gives me a sense of familiarity. I see it come up on the tray, I see it coming. It’s kind of nice. It’s comforting.”* (Resident 6)

*“It is very important that I choose what I want to eat. I like doing a menu because then I can actually tell them what I want.”* (Resident 3)

In addition to having a choice about meals, residents also feel that it is important that they have a choice of where to eat their meals; a choice of where to sit in the dining room; and that they are not forced to eat with people that they don’t know. The social interactions that residents experience at meal time is also an important aspect of quality of life. Residents report that meal times are sometimes the only time during the busy day that they may be able to catch up with friends and it is important to be able to sit where and with whom they want for meal time. Residents also report that it is just as important if they are having bad day, to be able to eat in their room alone if they choose. Residents were observed during meal time; the following are details of the observations:

Residents seem to sit in the same seats or at least the same vicinity for each meal. Some noted to sit in “their” seat all day. Conversations could be heard simultaneously. Some between resident and resident and others between resident

and staff. Residents are heard sharing opinions about the meal. At least two nursing aides from each wing are seen in the dining room. One resident is noticed waving down an aide to help another resident who is having trouble opening a packet of salad dressing. At one table four ladies are seated comparing trays and swapping desserts. One resident calls over the floor dietitian (PI): “Honey I didn’t ask for this canned fruit. I want the cake!”. Another resident at a table on the other side of the room was observed trying to get the attention of the nearest nursing aide: “I don’t want this. Can you get me a plate of turkey? No bread.” One resident question’s another about why they aren’t eating and offers something from their tray. In addition to the elevated hum of conversations being held in the dining room a faint sound coming from the floor model television can be heard; the afternoon news. As able, residents excuse themselves from the dining room once done with the meal. Others are assisted out by nursing aides. A few others stay in their seat anticipating the activity that will be held in the dining room in a few hours.

#### **4.2 Theme 2: Perspectives of Current Diet Prescription**

Generally, residents agreed that when diagnosed with diabetes, following a restrictive diet was something that they had to get used to. Residents report that they do not feel left out when sitting with peers who may not have the same diet restrictions. In general, residents feel that they get the same items on their trays as others. When asked about specific foods that are restricted from the diet, residents did not feel that there were things that they were no longer allowed to eat and wish that they could. Two residents mention cakes and pies as something that they notice that

they get less of but were not bothered by it and feel that they are good things to restrict. Ten of the twelve residents felt that their prescribed diet is beneficial and necessary to maintain health. One resident was not sure if the diet was helpful and one resident reported that the diet is not beneficial:

*“I think it's important to follow the diet for a lot of reasons. It [uncontrolled diabetes] could affect your vision. It could affect you physically, where you might have to have a foot removed or something.”* (Resident 7)

*“The connection between diabetes and my heart issues are the reasons I feel that following the diet are important. I want to live a little longer. I wasn't planning on dying just yet.”* (Resident 2)

*“Well, I think the diet...It [diet] has to be helping or I'd be dead.”* (Resident 1)

*“I believe it [diet] is working. My sugars are so low”.* (Resident 4)

*“Well. I would have to say I suppose it is if my A1c is where it is supposed to be. I can't remember what the numbers were, but my A1c has improved. So, I guess we are doing pretty good.”* (Resident 4)

*“No. They won't let me have soup. They say that hot dogs are bad for me.”* (Resident 8)

In addition to the diet prescribed by their healthcare team at Kane, some residents feel that they need to do more on their own to remain healthy:

*“I put myself on a diet. I don't eat too much sugar. And I try to watch eating healthy. I watch so that it [diabetes] doesn't get worse.”* (Resident 4)

*“I try to add more fiber to my diet.”* (Resident 1)



*“I don’t snack much. Sometimes my sugars get low. I’m not one for candy or cookies...junk. I never drink pop.”* (Resident 3)

*“I don’t use salt. I don’t use sugar. That stuffs not good for you.”* (Resident 10)

*“I was told that I could have sweets once in a while, but I just opt not to. I just wait and get a piece of cake and ice cream at the birthday party every month. That satisfies me until the next month.”* (Resident 5)

### **4.3 Theme 3: Dining Expectations**

Mealtime can be an exciting part of the day for residents. However, this can be affected by mealtime experiences. Many culture change efforts focus on the residents’ dining environment. Residents were observed on the second and third floors during lunch. Windows line the back wall of the dining rooms, sheer drapes drawn, and blinds pulled up allowing as much natural light in as possible. A floor model television situated halfway the length of the room sits in front of the windows. Accordion style dividers one to the far left of the dining room and another to the far right can separate the room into threes. Each side in line with either the west unit or the east unit. Each smaller section of the dining room has a small apartment size refrigerator and sink with counter and cupboard space. Rectangular tables of generally the same length and height are scattered throughout the dining room. Some of the tables stand alone, seating about four residents. Others pushed together to form a larger space to seat more residents.

Residents report feeling concerned about many aspects of food/foodservice, but dining environment is not high on the list of importance. Temperature, appearance, and taste of the food were perceived as most important. Residents feel that the menu is boring with the same food items

occurring too often within the menu cycle. Although residents feel that they can choose meals, it was reported that what they receive on the tray is not always what they are expecting, which sometimes affects appetite. Residents feel disappointed when what they choose is not what comes at mealtime:

*“Lately they been giving me these menus to fill out. Truly, I haven’t noticed a connection between those menus and the food I get.”* (Resident 2).

*“What I ask for and what I get are two different things. Why even choose if you don’t get what you want?”* (Resident 8)

At times residents feel that what they receive is not the same as what they ask for, but when residents were asked, “Do you worry that you will not get food that you ask for”, all twelve residents indicate that this is not a worry for them. Residents describe varying opinions about the food/foodservice, but all agreed that they feel confident that if they don’t like something someone is willing to call down to the kitchen and get something else for them:

*“If I ask for something else, they get it for me”.* (Resident 7)

*“Well. If they give me something I don’t like, I just send it back. And they give me something else.”* (Resident 2)

*“I can just tell my aide, “I don’t like this”, and they make sure that I get something to eat.”* (Resident 4)

In addition to getting things they didn’t ask for, residents also discussed how getting food that just isn’t appetizing, food cooked the same way every time, improper temperatures, lack of variety, and overall food/foodservice satisfaction affects appetite:

*“I don’t like the appearance of the food. The vegetables are often overcooked and mushy. It looks like puree food sometimes. When I first came here, I had to be on that type of diet and I lost 80 pounds because I couldn’t eat that.”* (Resident 4)

*“I find that there aren’t any seasonings. I’m used to garlic on some of my vegetables, or some onion. I’m used to some onion in my ground meat and I’m used to it looking brown not grey.”* (Resident 11)

*“The diet is fine. Cold hot dogs. Cold French Toast. Cold Coffee. What the heck!”*  
(Resident 3)

*“I had pizza this week that was burned. Really ruined lunch for me because I like pizza.”*  
(Resident 5)

*“If it doesn’t look good. I don’t eat it”* (Resident 2)

In general, residents report feeling satisfied with the food/foodservice. This is mostly contributed to the fact that residents feel that it is important that they are not forced to eat with people that they don’t know, or forced to eat food that they hate, and staff is nice and courteous and accommodate needs.

#### **4.4 Theme 4: Feeling Included**

The most important reported topic related to self-determination was the relationship with the healthcare team. Residents were asked to discuss their relationship with their healthcare team. Residents feel that it is most important that their healthcare team makes them feel “in the loop”:

*“My healthcare team tell me when I have appointments. They tell me the arrangements for transport and pick up. I always know the doctor’s name and where to go at the hospital. This makes me feel good.”* (Resident 3)

Residents prefer to speak to someone who will listen to them, make them feel understood, and support them emotionally. Residents feel that it is important that their healthcare team understands them and considers how they want to do things:

*“I feel like they [healthcare team] cater to my needs. If I want to change something, they entertain it. That’s important to me.”* (Resident 6)

*“Yes, I could say that I feel understood by my healthcare team. I think they may just do what they want to do anyway.”* (Resident 8)

Residents feel that it is important to be included in decisions regarding their diabetes treatment along with their healthcare team. When asked about who has control of their diabetes treatments everyone felt that they had control as well as the healthcare team. Two resident’s report children influence their decisions about their treatments and the other ten report no one else has influence in decisions about their diabetes treatment. Residents feel that knowing their options is important in managing their health:

*“They [healthcare team] let me know what my options are. You know.”* (Resident 2)

*“They [healthcare team] always ask. Like if they bring food and I don’t like it, if I want something else. They always ask, “is it ok””. (Resident 4)*

*“Well they don’t really provide me with choices. But they are very accommodating for what I want to do. They don’t make me feel bad about asking questions.”* (Resident 5)

*“They [healthcare team] give me choices.”* (Resident 7)

Familiarity was another common topic among residents. For those who were diagnosed with diabetes before being admitted to Sunny Peak, it was important to continue to manage their diabetes as they did before being admitted. Generally, residents feel that there has not been much of a change in how they manage their diabetes now compared to before being admitted. However, one resident admits that they could no longer manage things on their own:

*“Well, clearly I’m here because I had a stroke. It was very clear to me after I got here that I wasn’t doing a good job. Clearly I wasn’t taking care of this properly.”* (Resident 2)

As a part of residents’ rights, facilities are required by law to have a resident council. The purpose of resident council is to give residents an opportunity to participate in affairs within the facility. Resident council promotes understanding among residents and provide necessary information for the benefit of all residents. The far right third of the second-floor dining room is closed off for the meeting. A long table sits in the middle of the room mimicking a corporate meeting room. About fifteen residents attended the resident council meeting and one family member. Observations were conducted during a monthly resident council meeting.

The meeting commences with the recreation supervisors’ welcoming remarks. The recreation supervisor welcomes residents by name as they start to come in. Residents start to trickle in, well before the meeting is set to start, and decide where along the table they wish to sit. Some can come in and get themselves situated at a place at the table. Others required some assistance by staff, particularly if the pathway was too narrow for the wheelchair or other ambulatory assistance device. As residents get situated at their seat, they are offered a pastry and coffee/tea by the recreation supervisor.

The new volunteer coordinator is introduced, resident rights reviewed, and the procedure for anonymous reporting is reiterated. The meeting followed a casual flow. Residents engage in small talk upon entering the room and greet their peers with laughing and smiling. Once the meeting started very little side conversations took place. Late comers entered the room quietly and were assisted by pastoral care staff to make sure that everyone fit into a place at the table. Pastoral care staff walked around and refilled coffee/tea and took orders for seconds of pastries. A white-haired lady with glasses sitting towards the middle of the table raises her hand. Addressed by name, she is given the floor: "Do you think we will be able to start planting herbs in the garden and give it to the kitchen to use?". "Oh's" and "that's a good idea" could be heard around the room.

Immediately following the resident council meeting the food council meeting started. The foodservice director, production manager, and dietitian supervisor entered the room during the last few minutes of the previous meeting. The addition of food council to the resident council meetings encourages residents' choice in the menu. Although food concerns can be answered at resident council, this time is dedicated solely to things related to food and foodservice. The following are details from that observation:

A middle-aged man, wearing glasses, pajama pants, and a t-shirt waits patiently for his turn to take the floor. Once given the go ahead: "Can we have regular spaghetti noodles again?". The production manager and food service director explain that resident council voted to have the fork noodles because they were easier for most residents to feed themselves and revote could happen if it continues to be a concern. A few resident's piggy back on a comment about

receiving burnt toast. An older gentleman from the back end of the table: “They said I could have salt, but it hasn’t been on my trays.”

Residents appeared to be comfortable and ready to air their concerns. The meeting switches tones, to planning the next holiday meal and desserts for the next two birthday parties. Options are shouted out and the popular vote will be decided as the final decision. The meeting ends with the recreation supervisor taking the floor again, recapping concerns and plans of action discussed during the meeting.

There were several opportunities to observe resident socials, including a birthday party, pizza party, and breakfast social. Participation in meaningful activities enhance residents’ perception of relatedness. One social that residents were observed at was the birthday party social. The birthday party takes place one time each month to celebrate all the residents with birthdays in that month and is in either the second floor or third floor dining room. Residents from both the second and third floors attended the birthday party. The following is an example of the observation:

The dining room is decorated with colored table cloths and balloons. Some residents, march in and directly seat themselves in the same seat or table as they eat at for meals. Music from a cd player plays in the background over the sound of table conversations, conversations between staff, and conversations between residents and staff. Recreation staff prepare serving trays with plates of birthday cake and ice cream and serving trays of beverages.

Residents were also observed at the breakfast social. Usually residents are served breakfast in their room but on this day residents who want to participate are brought to the dining room

during normal breakfast time. The social took place in the dining room and each floor had its own special breakfast on different days. Following are details of that observation:

Residents are served restaurant style by staff from steam tables set up right in the dining room. Soft music can be heard from a cd player in the back of the room. Although early, the room is buzzing with noise. One resident is sleeping at the table with her head down almost in her plate of food. At another table a staff member is refilling coffee for the table and taking orders for seconds for one of the residents: "When you are done, can I have another fried egg and a few pieces of bacon? I really like this bacon. We don't get bacon all the time."

Another social that residents were observed at was a pizza party. Each floor had a pizza party in their perspective dining rooms. Like the birthday party, recreation staff is noted to be preparing a tray with plates of pizza and a tray with beverages. Following are details from the observation:

Residents are served a slice of pizza from an outside vendor by preference of pepperoni or plain. Also, noted is a cart with bottled beverages and a bin of ice. Many residents in the same seats as observed at other socials and mealtime. The recreation staff stand in the middle of the room initiating conversations with the group. One younger lady with shoulder length straight here, leans forward with her cup in the air: "More. Pepsi. Please."



## 5.0 Discussion

Data from this study confirms the hypothesis that residents can follow a therapeutic diet and have increased quality of life and satisfaction if self-determination is maintained. This study proves that resident-centered care is multifaceted and that it takes more than meal choice to maintain satisfaction and perceived quality of life. Qualitative analysis revealed four themes from the study data: Exercising Choice and Preferences, Perception of Diet Prescription, Dining Expectations, and Feeling Included. The common factor in these themes is the ability for residents to make choices; which is the aim of the recent culture change movement. Literature shows that residents who feel that they have free choice have a significantly higher satisfaction with care (Bangerter, Heid, Abbott, & Van Haitsma, 2016). Residents expressed the importance of being heard and were observed demonstrating this right during meals, resident council meeting, and socials. The study data reveals that residents perceive choice as high in importance. Autonomy, functional competence, individuality, meaningful activity, and relationships are important components of quality of life and are proven to be significantly positively related to satisfaction (Burack, Weiner, Reinhardt, & Annunziato, 2012). Culture change is the driving force behind some of the recent changes seen in long-term care and aims to improve quality of life, which is the best measure of the impact of health care on individuals. This movement seeks to create an environment for residents that follows the residents' routines and allows the voices of elders and those working with them to be considered and respected. These environments make it so that both the older adult and caregiver can express choice and practice self-determination in meaningful ways. Culture change embodies informed choice and having options and has been the backbone for resident-centered care, shared decision making, and resident-centered dining. Quality of life

domains such as autonomy, food enjoyment, functional competence, individuality, meaningful activity, and relationships, security, and spiritual well-being, are significantly positively related to satisfaction (Burack, Weiner, Reinhardt, & Annunziato, 2012). A major part of quality of life is a sense of autonomy and maintaining independence. The aim of this study was to gain perspectives of residents and ultimately find ways to encourage autonomy, increase quality of life, and maintain satisfaction in meal planning and food choice. Brooker (2007) says that person-centered care must value every resident, use an individualized approach, see things from the residents' perspective, and create a supportive social environment that meets psychological needs.

A major finding of this study is that residents want to have some level of control over things that matter. This includes being able to make decisions, having their preferences heard, and feeling involved. Residents feel strongly about making choices about meals and things related to food and rate satisfaction with meal and meal service high on things that matter the most. This supports what the literature presents about the culture change movement and resident-centered care and resident-centered dining. The culture change movement and resident-centered care models that have evolved from it are centered around providing residents with choices. In addition to making decisions about meals, meal time rituals are also an important part of maintaining quality of life for residents. Study data supports that residents want to make choices about what foods to eat, where to sit during meals, and who to sit with. Observations confirm that resident's manifest self-determination by making choices during meal time.

Malnutrition and decreased intake in nursing home residents is a serious concern requiring focused attention. Literature suggests that therapeutic diets in the nursing home population contributes to increased risk of malnutrition in already compromised individuals (Centers for Medicare and Medicaid Services, 2011; Tariq, Karcic, Thomas, Thompson, Philpot, Chapel,

Morley, 2001). Study data indicates that residents do not find the consistent carbohydrate diet (CCHO) as restrictive. The diet is a more liberalized option for nursing home residents compared to the previous non-concentrated sweets diet. The CCHO diet does allow for previously prohibited items, like sweets and desserts to be consumed in smaller portions or modified without icing. Residents following this diet now do not have to feel left out when sitting with peers who may receive these items. Study data results indicate that residents also do not feel “bound” by the prescribed diet or forced to follow the restrictions instilled by the diet orders. Residents feel confident that changes can be made to their diet if they are unhappy with the items that they receive. Study data indicates that most residents perceive the dietary restrictions set forth by their prescribed diet as beneficial and necessary to maintain health. Some residents said that they “take matters into their own hands” and report “watching” what they eat to remain healthy. Residents “feel good” when they perceive that they are making decisions about their diet that make a difference in being “healthy”. Ultimately, residents feel satisfied and diet restrictions are perceived as less of a burden when residents feel that they have more control or more of a “say” in their diets. Opinions about diet orders indicate residents want to have more control of the dietary restrictions in their diet orders. As seen in the study by Vaillancourt et al. (2012) most often dietitians and other health care professionals do not involve patients’ in decisions regarding their dietary treatment.

Resident-centered dining is driven by the residents needs and desires. Many models include adding buffet stations, updating china, and changing foodservice to restaurant style or more “homelike”. Hung et al. (2015) found that environment and design of dining areas play a key role in person-centered care by enhancing the quality of their dining experience. Family style meals and home-like wall décor increases social interaction and improves intake at meals. However,

simply making changes to the design of the dining room or other changes to the environment does not ensure that food/foodservice satisfaction and quality of life will be maintained. Nor does it contribute to the self-determination of the residents.

The nursing home population is changing. More residents are being admitted to nursing homes at younger ages with expectations to continue to live the rest of their years there. The previous notion that residents come to nursing homes to diet is no longer valid. Residents have accepted the realization that they may need more support for daily activities and must resort to living in a nursing home; but they want have control, be treated like an individual, and do things that they enjoy. Studies show that residents express their frustration with the lack of independence by complaining about meals, refusing meals, or refusing to follow therapeutic diets (West, Oullet, & Ouellette, 2003).

In addition to making decisions about food, residents feel that shared decision making with the healthcare team and participating in activities of choice or being involved within the facility is important. The feeling of familiarity, feeling at home, feeling comfortable, and enjoying their physical and social environment are all things that contributes to an increased quality of life. Shared decision making is an important component in resident-centered care. Allowing residents to exercise choice and preferences not only maintains autonomy, it makes residents feel included. The perceived comfort of interactions with healthcare practitioners is vital for residents to maintain quality of life. Residents want to feel that they are involved in decisions regarding their care and feel competent and relatedness when they are included. In shared decision making, health-related decisions are shared by the resident and health professionals. Residents have more direction over care, increased engagement, and continue to live in a way that is meaningful to them. The literature suggests that health outcomes are optimized when health practitioners support patient autonomy,

perceptions of competence, and a sense of connection with health providers (Pedlog & Brown, 2016). Study data show that residents feel that being included in decisions regarding their treatments was important in maintaining self-determination. Most importantly residents want to be informed and understood by their healthcare team. When residents feel that they have a respectable relationship with their healthcare team, they feel more confident to make their needs and wants known. Residents feel that they have control of their diabetes treatments and feel involved in the decisions regarding them, therefore feeling less burdened by the disease.

Another significant finding of this study was residents' dining expectations. How perception of food/foodservice impact residents' quality of life is undervalued. As discussed earlier in the chapter, residents feel that having a choice in meals is very important. However, more importantly is receiving food that tastes and looks appealing. Perception of food/foodservice satisfaction impacted residents' opinions about their diets more than the dietary restrictions they were expected to follow. Although residents expressed frustration with receiving foods that do not meet expectations, residents feel confident that if they receive something that they do not like, they could ask for something else. This was frequently observed during mealtime, even for those who "chose" their menu items ahead of time. Many studies focus on the restrictive nature of diets as determinants of satisfaction. Studies also are often focused on aspects of food/foodservice satisfaction such as tableware not missing on tray or friendliness, respectfulness, promptness and willingness to help of dining room employees, but little research has been done to improve the quality of the food. Although residents feel that meal expectations are not being met, overall perceived satisfaction with foodservice was positive due to being satisfied with dining environment, delivery of meals, and courteous staff. Poor satisfaction with food and/or foodservice can significantly determine food intake in the nursing home population. Food

enjoyment and social experiences while dining, positively correlates with quality of life. Similar to the findings by Jeong and Seo (2014), residents rated foodservice quality as better than normal and regard staff service as important, but rated food quality lower than service quality. Residents report little variety in meals and food that is not prepared as well as expected. The literature suggests that low daily food budgets are to blame for the quality and quantity of food and cooking ingredients (Strathman, et al., 2013). The study by Strathman, et al. (2013) showed that meal intake was lower in facilities with lower food budgets than institutions with higher food budgets. The decrease in quality of these items can result in decreased intake and increased risk of malnutrition and other nutrition problems. Overall, dissatisfaction with meals correlates with decreased appetite and decreased meal intake which puts residents at an increased risk for malnutrition. It is important to understand what affects residents' satisfaction and their expectations of foodservice services. Most quality of life domains are positively related to resident satisfaction and the positive relationship between food enjoyment and quality of life (Burack, Weiner, Reinhardt, & Annunziato, 2012).

### **5.1 Limitations**

The study setting was chosen for the convenience and accessibility it provided for the primary investigator. The experiences in other nursing homes may be different. Moreover, interviews were conducted with 12 willing participants. While there was considerable commonality in residents' responses, other residents at Sunny Peak might have expressed different views. In addition, the study lacked cultural and ethnic diversity, as all participants were Caucasian.

Another limitation of the study was that participants were prescribed a consistent carbohydrate (CCHO) diet, which is a less restrictive option for diabetic residents. The fact that the diet is more liberalized than the non-concentrated sweets diet could have impacted residents' perception of the diet order. Results may differ for residents prescribed more restrictive diet plans.

## **5.2 Implications**

Nursing home residents hold a stake in maintaining autonomy in the place they call home. Most people are admitted to nursing homes because of some type of disability that impedes activities of daily living (ADLs). These problems however are not likely to prevent these residents from being able to make decisions about the food that they eat. Below are four major areas to consider for future implications.

### **5.2.1 Research**

This study involved a small sample of residents at one facility with limited generalizability. However, this study may provide the groundwork for future studies to further explore the underlying themes and patterns found in the data. Further research is needed that includes a more diverse group of cognitively intact nursing home residents receiving other therapeutic diets to manage chronic disease. It also recommended that further research includes residents with impaired cognition or communication problems that make it harder to express their needs, wants, and preferences.

### **5.2.2 Theory**

The results from this study should be used in conjunction with resident-centered care models to encourage self-determination and participation in making decisions about healthy meal choices in the nursing home population. The data from this study suggests that some residents feel that following a therapeutic diet is beneficial and makes them feel healthier. It is recommended that data from this study be used by practitioners to provide nutrition guidance that allows residents to have more control of therapeutic meal choices. This allows residents to personalize a dietary meal plan while following a therapeutic diet necessary to manage chronic diagnoses. This suggested care model supports autonomy, competence, and relatedness.

### **5.2.3 Education**

Culture change is continually evolving. Staff involvement is important in the efforts to help maintain resident autonomy, quality of life, and food/foodservice satisfaction. It is important that the staff are properly trained and are aware of the recent culture change in nursing homes. It is recommended that staff in long-term care facilities participate in training at least quarterly in self-determination and resident-centered care. Training should include techniques and tools that equip staff to support and maintain self-determination. Nursing home administrators have experienced resistance from veteran staff who are used to doing the same things the same way, and do not want to change (Shield et al., 2014). Staff reported concerns that changes to implement culture change would increase workload with no additions made to staffing.



#### 5.2.4 Practice

This research highlights the importance of understanding residents' perceptions of meal choice, self-determination, and food/foodservice satisfaction. This includes honoring preferences, ensuring residents are empowered to make their own choices when possible, and providing an enjoyable meal experience. Future models need to consider how intake and acceptance of meals are impacted by social and psychological aspects highlighted in this study.

The first recommendation is that practitioners make a thorough assessment of residents' preferences for involvement in decision-making. It is important to allow the resident the ability to participate in decision making based on their preference to do so. Some residents would prefer a more passive role in decision making, while others want a more active role. Being a resident in a nursing home alone is no excuse for failing to encourage or at the very least extend the invitation for residents to participate in decision making.

Similar to Kogan et al. (2016), this study found that person-centered care approaches did not account for individual preferences and needs of older adults with chronic illnesses and functional limitations. Diet prescriptions should be individualized taking into consideration the residents' informed choices, goals, and preferences. Residents patterns and routines during mealtimes should also be considered. Residents reported positive satisfaction with foodservice because they could choose eating alone or with others and were not forced to eat with people that they did not know. In addition, it is important that staff considers the type of physical support that residents may need like assistance reaching items on their trays or opening cartons or cutting food. However, staff should pay special attention to not take away the residents' independence.

The second recommendation is that residents are involved in the foodservice aspects of care. Winterburn (2009) showed that residents had no direct contact with food retailers or outside sources of food and suggests that the marketing from local retailers should include the residents as well as the kitchen staff, ending the one-way street noticed in the food map. This research suggests that residents not only be active in making menu choices but taking it a step further and also having an opinion about other aspects of foodservice like the production of meals. To increase meal satisfaction and meet dining expectations, residents need to be involved in the menu planning process. This includes resident input on appearance and taste of new menu items before they are put on the menu. Also, the enhancement of menus to include pictures and detailed descriptions of items on the menu. Residents report frustration with receiving unfamiliar menu items or receiving items that were not what was expected. Special attention should be paid to items on the menu that do not serve well when produced in batches. Ideally, the addition of country kitchens or a similar concept would allow for made to order items. This would maintain temperature and in some cases the texture of menu items. The inclusion of residents in the facility menu planning process is vital for self-determination and food satisfaction.

### **5.3 Summary**

In summary, residents perceive therapeutic diets as helpful in the treatment of diabetes and feel that they are necessary to maintain health. Many residents admitted to eliminating or avoiding foods that they feel are not good for them to maximize health, even when those things were not part of the prescribed restrictions. Residents do not express feelings that they are missing certain food items that have been restricted by their consistent carbohydrate diet and are pleased when

they hear that lab values have improved or no longer need certain treatments. Which residents contribute to following certain dietary provisions. Food service satisfaction is maximized by choice. Residents express sometimes getting foods that they don't like or even receive foods that they didn't choose, they always feel confident that they are not stuck with these items and can return them for something else. Moreover, the courteous staff makes it easier to be able to do so without worry. Observations of the everyday occurrences in the nursing home reveal that resident's manifest self-determination by participating in socials, resident council, having control over meals and diet, and having relationships with their healthcare team.

## Appendix A Consent Form

### Consent Form

Dear Resident,

I am conducting a research study as a doctoral student in the University of Pittsburgh's Health and Physical Activity Program. The focus of this study is to gain a better understanding of the perspectives of nursing home residents at Sunny Peak-Ross regarding meal satisfaction and meal choice. Completion of this study will fulfill the dissertation requirements for my doctoral degree, but it is also my hope that it contributes to the development of programs to maintain meal satisfaction in nursing homes.

You qualify to participate in this study based on your role as a resident at Sunny Peak-Ross receiving a CCHO diet to manage your diabetes. You are being asked to volunteer for a research study. It is up to you whether you choose to participate or not. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate or discontinue participation.

As a participant of the study you will be asked to complete a one-time face to face interview with me that will explore the experiences of nursing home residents with diabetes, following a consistent carbohydrate diet, as well as expectations, perceived control over food and foodservice, and perceived support of healthcare team. The interview will be audio recorded for accuracy and stored on a password secured device and will be destroyed once interviews are transcribed. This will require only about an hour of your time.

There are no direct benefits for participation in this study, nor is there any compensation attached. Your participation is purely voluntary, and you may choose to discontinue the interview at any time. Your information will be treated as confidential and will not be connected to your name. Risks associated with participation in this research study include the risk of breach of confidentiality. Approval from the Institutional Review Board (IRB) at the University of Pittsburgh was previously requested and granted prior to this invitation. Authorized representatives from the University of Pittsburgh Research Conduct and Compliance Office may review your data solely for the purpose of monitoring the conduct of this study. If you have any questions about your rights as a research subject or wish to talk to someone other the research team, please call the University of Pittsburgh Human Subjects Protection Advocate toll-free at 866-212-2668.

The data collected will only be available to me, Tameika Banks as the researcher. If you have any questions or concerns about the study, you can contact me at (412) 369-2169. You may also contact my Advisor and Committee Chairperson Dr. Fertman at (412) 648-7191 for additional information.

## Appendix B Recruitment Script

### Recruitment Script

Hi Mr/Mrs.....

My name is Tameika Banks, I'm one of the dietitians here at Sunny Peak. I am conducting a research study as a doctoral student in the University of Pittsburgh's Health and Physical Activity Program. The focus of this study is to gain a better understanding of the perspectives of nursing home residents at Kane-Ross regarding meal satisfaction and meal choice. Completion of this study will fulfill the dissertation requirements for my doctoral degree, but it is also my hope that it contributes to the development of programs to maintain meal satisfaction in nursing homes.

You qualify to be chosen to be a participant in this study based on your role as a resident at Sunny Peak-Ross receiving a CCHO diet to manage your diabetes. You are being asked to volunteer for a research study. It is up to you whether you choose to participate or not. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate or discontinue participation.

As a participant of the study you will be asked to complete a one-time face to face interview with me that will explore the experiences of nursing home residents with diabetes, following a consistent carbohydrate diet, as well as expectations, perceived control over food and foodservice, and perceived support of healthcare team. The interview will be audio recorded for accuracy and stored on a password secured device and will be destroyed once interviews are transcribed. This will require only about an hour of your time.

There are no direct benefits for participation in this study, nor is there any compensation attached. Your participation is purely voluntary, and you may choose to discontinue the inquiry study at any time. Your information will be treated as confidential and will not be connected to your name. Risks associated with participation in this research study include the risk of breach of confidentiality. Approval from the Institutional Review Board (IRB) at the University of Pittsburgh was previously requested and granted prior to this invitation. The data collected will only be available to me as the researcher.

If you are interested in participating, we can schedule a time for an interview.

## Appendix C Observation Protocol

### Observations of Interactions Involving Nursing Home Residents Related to Food and Foodservice

Observation Type	Setting	Interactions: Resident and Resident	Interactions: Resident and Staff	Other Relatable Observations
Activity: Day: Time:				
Activity: Day: Time:				

Activity: Day: Time:				
Activity: Day: Time:				

## Appendix D Interview Protocol

### ATTITUDES AND BELIEFS OF SELF-DETERMINATION OF NURSING HOME RESIDENTS FOLLOWING A DIABETIC MEAL PLAN

#### Focused Interview Guide

Resident:	Date:
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Introductory Script:

**Thank you for agreeing to speak with me today. This interview will help in better understanding the needs and wants of nursing home residents and how to be supportive to maintain autonomy, reduce the risk of poor quality of life, and increase meal satisfaction in those residents who need a restrictive diet to manage diabetes.**

**I would like to start by asking you about how you have felt about your encounters with your healthcare team.**

1. Do you feel that your healthcare team conveys confidence in your ability to make changes?
  - Explain how your healthcare team have provided you with choices?
2. Does your healthcare team encourage you to ask questions?
  - Do you feel understood by your healthcare team?
    - What makes you feel that way?
3. Does your healthcare team listen to how you would like to do things?
  - Do you feel that your healthcare team tries to understand how you see things before suggesting a new way to do things?

**I would like to ask you some general questions about having diabetes...**



*Patient's General Perception of Own Health*

4. Tell me about your life with diabetes?
5. Were you diagnosed with diabetes before coming to Sunny Peak or were you diagnosed with diabetes while you were here?
  - (If diagnosed at home) Has your experience managing your own diabetes before the NH affected how you want your diabetes treated now that you're in the NH? How?

*General Patient Perceptions of Diabetes Treatment*

6. What do you think are the worst things that could happen to you because of your diabetes?
7. Do you feel that you have control of your diabetes treatments?
  - Who else has control over your diabetes treatments?
    - Probe: (doctors, nurses, other health professionals, family, other residents)
8. What are the things that are important to you about your diabetes care?

**Next, I will ask some questions about the treatment of your diabetes.....**

*Specific Treatment and Perceived Burden of Treatments*

9. Are you on a special diet because of your diabetes?
  - (If yes) Could you tell me what your diet is like?
10. Does Sunny Peak provide the foods you need to eat to follow your diabetes diet?
  - Are there specific foods you want to eat but don't or can't because of your diet?
11. Do you think that the special diet is helping you?
12. What do you think about the treatments you are receiving for your diabetes?
  - Do you think the medications/insulin are helping you?
13. Has diabetes treatments changed your life?
  - (If Yes) In what way?
    - What is the reason you feel the way you do?
14. What do you think would make your diabetes care better?

*Diabetes Care Goals*

15. How important is it for you to have your diabetes treated?
  - What is the reason you feel the way you do?
16. What do you feel is the most important benefit from treating your diabetes?
17. What are the hardest things about having diabetes?

*Additional Information*

18. Is there anything that I didn't ask you that you think is important for me to know about your diabetes and the care you are receiving?

**Now I'm going to ask you some questions specifically about your food and foodservice at Kane.**

*Enjoying food and foodservice*

19. Since you have come to Sunny Peak have you lost your appetite?
- If yes, why do you think that you have lost your appetite?
20. Are you forced to eat with people that you don't know?
- If yes, how does that make you feel?
21. Do you feel that you have to eat things that you hate?
22. Do you have food in front of you that you can't get to?
23. Over the past week, during mealtime, have you received food that you dislike?
24. Do you feel that foods always cooked the same way?
- Explain

*Exercising Choice*

25. Do you worry that you will not get food that you ask for?
- Do you feel that you can change the food or foodservice?
    - How?
  - Do you enhance your satisfaction by complaining about the food?
26. How important is it to you that you choose what to eat?
- Why?

*Providing Food Service*

27. Over the past week, during mealtime, have you received foods that are the proper temperature?
- Were the foods that are freshly cooked and served on time?
  - Do you feel that you receive the right amount of food?
28. Does the staff help in cutting up food if needed?
- Are they friendly and courteous?
29. Would you say that you are satisfied with the foodservice?

Explain.

*Cooking Good Food*

30. Do you feel that the staff at Sunny Peak know how to prepare a meal and have experience in food service?

Give examples.

31. Do you get a variety of foods?

Do you feel that these foods are appetizing?

## Appendix E Health Care Climate Questionnaire

### Health Care Climate Questionnaire (HCCQ)

This questionnaire contains items that are related to your visits with your healthcare team. We would like to know more about how you have felt about your encounters with your healthcare team. Your responses are confidential. Please be honest.

1. I feel that my healthcare team (physician, nurse, dietitian) has provided me choices and options

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

2. I feel understood by my healthcare team (physician, nurse, dietitian).

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

3. I am able to be open with my healthcare team (physician, nurse, dietitian) at our meetings.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

4. My healthcare team conveys confidence in my ability to make changes.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

5. I feel that my healthcare team accepts me.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

6. My healthcare team has made sure that I really understand about my condition and what I need to do.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

7. My healthcare team encourages me to ask questions.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

8. I feel a lot of trust in my healthcare team.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

9. My healthcare team answers my questions fully and carefully.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

10. My healthcare team listens to how I would like to things.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

11. My healthcare team handles people's emotions very well.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

12. I feel that my healthcare team cares about me as a person.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

13. I don't feel very good about the way my healthcare team talks to me.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

14. My healthcare team tries to understand how I see things before suggesting a new way to do things.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

15. I feel able to share my feelings with my healthcare team.

1	2	3	4	5	6	7
Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree

## Appendix F Diabetes Interview Protocol

CLC Resident Interview Guide  
Glycemic Control and Geriatrics Outcomes in National Sample of VA CLC Residents  
Semi-Structured Interview Guide

Interviewer:	Interview date:
Interviewee ID:	

### Introductory Script

**Thank you for agreeing to speak with me today. We are interested in learning more about the things that are important to you when it comes to the care you are getting for your diabetes. We hope that what you tell us will help us improve the way doctors, nurses and pharmacists care for older patients with diabetes.**

#### I. Patient's General Perception of Own Health

**I would like to start by asking you some questions about your health.**

- 1) How are you feeling right now?
- 2) Tell me about your life with diabetes.
- 3) Did you get diabetes before coming to the nursing home or were you diagnosed with diabetes after entering the nursing home?
  - (If diabetes before NH) What were you doing to manage your own diabetes before coming into the nursing home? [Probe to get a sense of how active and engaged they were in managing their diabetes prior to the NH]
  - (If diabetes before NH) How is your diabetes being managed now?
  - (If diabetes before NH) Has your experience managing your own diabetes before the NH affected how you want your diabetes treated now that you're in the NH? How?

#### II. General Patient perceptions of Diabetes Treatment

- 4) What do you think are the worst things that could happen to you because of your diabetes?



- 5) What are your reasons for getting diabetes treatment?
- 6) Tell me about who has influenced you to get diabetes treatment.
  - Probe 1: Ask about the role of family, doctors, nurses, other health professionals, other residents)
  - Probe 2: Has the influence been a positive or negative experience?
- 7) Do you feel that you have control of your diabetes treatments? Who else has control over your diabetes treatments? (Probe doctors, nurses, other health professionals, family, other residents)
- 8) What are the things that are important to you about your diabetes care?

**I would like to ask you about the treatments you currently receive for your diabetes.**

### III. Specific Treatments and Perceived Burdens of Treatments

- 9) Do you get finger sticks? (If so, how often do you get them? How do you feel about the finger sticks?)
- 10) Do you take medicines by mouth for your diabetes? (If so, what is your daily routine with these medicines? Do you feel like you're taking not enough medicines, too many medicines, or the right amount of medicines?)
- 11) Do you take insulin? (If so, what is your daily routine with insulin?)
- 12) Are you on a special diet because of your diabetes? (If so, could you tell me what your diet is like?
  - Probe 1: Does the CLC provide the foods you need to eat to follow your diabetes diet?
  - Probe 2: Are there specific foods you want to eat but don't or can't because of your diabetes?
- 13) Are there other treatments you're getting for diabetes?
- 14) What do you think about the treatments you are receiving for your diabetes? If patients don't address whether the treatments are helpful or not, then ask, "Do you think the finger sticks/medications/special diets are helping you?"
  - Has diabetes treatments changed your life? In what way?

15) What do you think would make your diabetes care better?

IV. Diabetes Care Goals

16) How important is it for you to have your diabetes treated? What is the reason you feel the way you do?

17) What do you feel is the most important benefit from treating your diabetes?

18) What are the hardest things about having diabetes?

19) What are the hardest things about diabetes treatments?

- Probe: (If respondent doesn't bring up burdens of treatment: Since some treatments are hard and bothersome, do you think your diabetes treatments are worth it?)

V. Additional Information

**What haven't I asked you that you think is important for me to know about your diabetes and the care you are receiving?**

## Appendix G Food Expectations Long-Term Care Questionnaire

### FoodEx-LTC

*Domain: Enjoying food and food service*

#### **Since I came to Sunny Peak:**

1. I have lost my appetite.  
True    Somewhat True    Somewhat False    False
2. I am forced to eat with people I don't know.  
True    Somewhat True    Somewhat False    False
3. I have to eat things I hate.  
True    Somewhat True    Somewhat False    False
4. I am taken to the dining room too soon.  
True    Somewhat True    Somewhat False    False
5. I have to wait to go back to my room.  
True    Somewhat True    Somewhat False    False
6. I have food in front of me that I can't get at.  
True    Somewhat True    Somewhat False    False

#### **Over the past week, during mealtime, I have received:**

7. Food I dislike.  
True    Somewhat True    Somewhat False    False
8. Food always cooked the same way.  
True    Somewhat True    Somewhat False    False

*Domain: Exercising Choice*

**Since I came to Sunny Peak:**

9. I worry that I will not get the food I ask for.

True   Somewhat True   Somewhat False   False

10. I feel powerless to change the food or foodservice.

True   Somewhat True   Somewhat False   False

**I enhance my satisfaction with the food and foodservice at Sunny Peak by:**

11. Complaining about the food

True   Somewhat True   Somewhat False   False

**It is important to me to:**

12. Choose what to eat.

True   Somewhat True   Somewhat False   False

13. Choose when to eat.

True   Somewhat True   Somewhat False   False

14. Send outside of Kane for food.

True   Somewhat True   Somewhat False   False

*Domain: Providing Food Service*

**Over the past week, during mealtime, I have received:**

15. Foods served at the proper temperature.

True   Somewhat True   Somewhat False   False

16. Food freshly cooked and served on time.

True    Somewhat True    Somewhat False    False

17. The right amount of food.

True    Somewhat True    Somewhat False    False

**The staff here at Sunny Peak:**

18. Keep a close eye on what I eat.

True    Somewhat True    Somewhat False    False

19. Get take-out food for me, if I want it.

True    Somewhat True    Somewhat False    False

20. Provide help in cutting-up my food.

True    Somewhat True    Somewhat False    False

**The kitchen staff here at Sunny Peak:**

21. Work hard to serve food everybody likes.

True    Somewhat True    Somewhat False    False

22. Are friendly and courteous.

True    Somewhat True    Somewhat False    False

**Since I came to Sunny Peak:**

23. I have been satisfied with the foodservice.

True    Somewhat True    Somewhat False    False

*Domain: Cooking Good Food*

**The staff here at Sunny Peak:**

24. Know how to prepare a meal.

True   Somewhat True   Somewhat False   False

25. Have experience in food service.

True   Somewhat True   Somewhat False   False

**Here at Sunny Peak, I get:**

26. A variety of foods.

True   Somewhat True   Somewhat False   False

27. Foods that are appetizing.

True   Somewhat True   Somewhat False   False

28. Plenty of fresh fruit and vegetables.

True   Somewhat True   Somewhat False   False

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