

Resident Satisfaction with Foodservice at
a Senior Care Community

By

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ABSTRACT

The aging post World War II generations, swing and baby boomers are now reaching retirement age; the two generations form a large segment of the population therefore causing major changes in demographics and economies. The purpose for conducting this study was to evaluate residents' satisfaction levels with the foodservice from the senior care community in Lubbock, Texas. In this study, five dimensions were studied: reliability, empathy, tangibles, assurance, and responsiveness. Each dimension consisted of independent variables that influenced the overall satisfaction ratings.

Significant findings were tangibles and reliability impacted the respondents' overall satisfaction levels. Employees' attitudes had the highest correlation to the overall satisfaction level. In addition, meal temperature had the highest impact on residents' meal satisfaction. The portion size of the food did not affect residents' meal satisfaction. If the senior care community focuses more on temperature and flavor of food it may improve residents' meal satisfaction levels. By also focusing on tangibles and reliability it may increase residents' overall satisfaction.

There were no significant differences based on gender, however there is significant difference based on length of tenure at the senior care community which corresponds with the Kübler-Ross Stages of Grief Cycle.

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CHAPTER I

INTRODUCTION

Description of Problem

The bust-boom-bust fertility patterns that prior generations practiced are now starting to affect the senior citizen population in the United States (Munnell, 2004). The Administration on Aging (2009) in 2006 counted 36.8 million people age 65 and older representing over 12.4% of the United States population. Baby Boomers will begin turning age 65 in 2011 and by the year 2030 it is estimated that the cohort of people over 65 will increase from 35 million to 71.5 million. Not only is the number of seniors expected to be larger within the total population, but they are also expected to live longer (Popper & Kroll, 2003). Seniors are also now more conscious of healthy practices and have healthier and more independent lifestyles. The generations that are currently entering senior-care communities require different levels of care as they age. Senior living communities should prepare themselves with a continuum of care services such as: apartment-style living, assisted living, skilled nursing units, and hospices. The expectations of the current population have created an environment which forced changes in the service industry and will continue to impact the future as fertility patterns continue for the ensuing generations (Munnell, 2004).

The primary reason for conducting this study is to better understand residents' perceptions of foodservice quality in a senior care community (SCC). The ultimate goal is to discover how seniors judge the quality of foodservice through a survey administered in their senior community. Due to the aging swing

and baby boom generations, there will be a great demand for senior living communities thereby making it important to know how to provide satisfying foodservice experiences. This study will also examine the effects that previous dining experiences have on the current satisfaction levels of residents. The findings of this study will allow senior care community operators to consider and evaluate their facilities, in order to offer the best service possible.

Significance of Study

This study will assess the quality of foodservice at a senior care community. Through this study other senior care communities will be able to determine if their foodservice meets their satisfaction level. DINESERVE and SERVQUAL will be employed as service quality measurement tools to appropriately assess the foodservice quality. This study will examine variables such as tangibles, reliability, responsiveness, assurance, and empathy. The goal is to examine these factors to better understand residents' perceptions of quality and improve the service offered.

Research Objectives

The objectives of this study are to:

1. Determine the specific attributes that affect a resident's perception of customer satisfaction;
2. Explore the effect that previous dining experiences have on residents' expectations of the foodservice quality at a Senior Care Community;

Research Questions

The following questions were formulated to test the research objectives for this study:

1. What is the relationship between the five SERVQUAL dimensions to the overall satisfaction level of the residents of the senior care community?
2. What is the relationship between food temperature, flavor, and portion size to the overall meal satisfaction level of residents?
3. Are residents satisfied with the food at the senior care community?
4. Are residents satisfied with the service at the senior care community?
5. Are residents satisfied with the employees' attitude at the senior care community?
6. Is there a difference in satisfaction levels based on gender?
7. Is there a difference in satisfaction level based on tenure at the senior care community?
8. Do residents who previously dined out often have higher expectations of the foodservice quality at their current senior care community?

Description of Testing Site

The site where data collection took place was at a senior care community, located in Lubbock, Texas. The choice of this location was primarily due to the facility being a full service senior care community. The availability of foodservice at this facility made it an ideal location.

Definition of Terms

1. Customer Satisfaction: A measure of how products and services supplied by a business meet or surpass customer expectation.
2. SERVQUAL: A service quality framework to measure customer perception of quality.
3. DINESERVE: A service quality-measuring tool.
4. Tangibles: The physical facilities, equipment and appearance of personnel within a business.
5. Reliability: The ability to perform promised services dependably and accurately.
6. Responsiveness: Employees' willingness to help and provide customers with prompt service.
7. Assurance: Employees' knowledge, courtesy and ability to inspire trust and confidence in the residents.
8. Empathy: The caring and individualized attention residents receive.
9. Swingers: Post World War II generation born between the years 1934 to 1945.

CHAPTER II
REVIEW OF LITERATURE

Theoretical Framework

The theoretical framework for this research study is adapted from DINESERVE: A Tool for Measuring Service Quality in Restaurants by Pete Stevens, Bonnie Knutson, and Mark Patton (1995). This model (figure 1) shows the correlation between dining facility dimensions, customer experiences, and expectations that influence the overall customer satisfaction level. The quality of the food, the pleasantness of the physical environment, and the type of service that the staff offers to residents influences the overall customer satisfaction level. The expectations set by previous dining experiences also may affect the way residents judge the three aforementioned factors.



Figure 1. DINESERVE Theoretical Model. Adapted from: DINESERVE: A Tool for Measuring Service Quality in Restaurants Model.

Generational Cohorts

The Swing Generation

The Swing Generation is also known as Swingers, the Silent Generation, war babies, and pre-boomers. This generation is composed of people born between the years 1934 through 1945 (Gilbert, 2000; Stegelin, 2002; Finke, Huston, Sharpe, 2006). In 2000 the swing generation accounted for 11 percent of the population and 14 percent of adults, approximately 30 million people in total. The swing generation is smaller than its surrounding generations, such as the World War II cohort and baby boomers. Members of the Swing Generation were also overlooked when it came to the changes they were able to accomplish regarding American society and culture (Mitchell, 2003).

This cohort was the first to have large numbers of women enter the workforce. Swingers were leaders of social change during the 1960's and 1970's including the civil rights movement, the women's rights movement, and anti-war movement. Social and political activists like Gloria Marie Steinem, Jesse Jackson, and Abbie Hoffman were of the swing generation. Swingers' values and lifestyles are a combination of the World War II generation and baby boomers (Littrell, 2005; Mitchell, 2003). Now the swing generation has members who hold high positions in companies, government, and other organizations (Gilbert, 2000; Mitchell, 2003). Due to the opportunities and positions available to Swingers they have, been able to accumulate great wealth.

Swingers hold a higher proportion of wealth for retirement than that of baby boomers (Gilbert, 2000). This generation was able to accumulate a high

net worth and discretionary income to spend on their inclinations, such as travel and possessions (Littrell, 2005). Their wealth was possible because of workplace characteristics that keep them on the cutting edge.

Kennedy (2002) describes swingers' workplace characteristics as a generation that had traditional work ethics in which work came before lifestyle. Swingers were born to lead and demonstrated loyalty to their employer. This generation was independent, but conventional in that they valued working with others. Of these pre-boomers, about 50 percent are computer competent; as opposed to boomers, of whom 32 percent are computer competent. Swingers believe in having a strong chain of command and a mission in the workplace. Winning was something they wanted to do, but not necessarily the ultimate goal. Swingers or Pre-boomers came of age when many lifestyle changes were happening because of World War II and the Great Depression.

According to Kennedy (2002), pre-boomers had lifestyle characteristics very different from those of the baby boomers. Pre-boomers liked to work hard, save money, and have a job with two weeks of vacation every year. When it came to making choices about what they liked, they normally did not consider others' opinions in their decisions. Religion was something they cared about, as opposed to baby boomers, who saw religion as a socially acceptable practice. For pre-boomers, exercise was not a hobby or a necessity; it was something they would be forced to do. When it came to the purchase of a home, swingers would be satisfied with the purchase of a decent home, unlike the following generation.

When it came to being motivated to do something, swingers would be mainly motivated by money. Responsibility was something that pre-boomers expected in the workplace. They also sought public recognition. The desire to lead and control were also motivators as well as the accomplishment of a given task. Organizational loyalty is also a factor that motivated this generation to toil (Kennedy, 2002).

Kennedy (2002) also explained the pre-boomers' social values, and pointed out that they would be the type of people who supported organizations like the United Way. Pre-boomers assisted in the Peace Corps, the Red Cross, community activities, and the Rotary Club. This generation considered voting to be a must and would also place family above everything. When it came to purchasing habits, pre-boomers preferred to buy American-made products. Now as swingers are entering retirement, they are seeing how being financially unproductive is negative affecting their lives by their lack of contribution to society (Blanchette & Valcour, 1998).

In 2010, Swingers were between the ages of 65 through 77 (Mitchell, 2003). Many of these seniors have left the workforce to enter retirement. This small generation does not get much credit for the importance of their achievements. Most of their endeavors were credited to baby boomers, the generation that followed (Mitchell, 2003).

The Baby Boomer Generation

The baby boom generation is one of the largest cohorts in American history. They are individuals born between the years 1946 through 1964. Baby boomers comprised 28 percent of the total population in the U.S. and 37 percent of adults in 2010 and accounted for 78 million people (Mitchell, 2003). Boomers are distinct individuals who continually help shape American society (Bouvier & De Vita, 1991)

According to Bouvier and De Vita, (1991), Baby Boomers have caused changes to society at every stage of their life cycle due to the large numbers in their generational cohort. Baby boomers have been blamed for failures, credited for successes, and researched in every way possible in order to satisfy their needs in schools, labor, housing, consumer markets, and in government programs (Coleman, Hladikova, & Savelyeva, 2006; Bouvier & De Vita, 1991). Boomers had to modify their lifestyles as opposed to what they expected due to the competition for success was so great due to the magnitude of their cohort (Bouvier & De Vita, 1991).

The lifestyle boomers grew up with was to be independent and individualistic (Littrell, 2002). According to Kennedy (2002), boomers would work hard, play hard, spend hard, and talk about their achievements. When it came to making decisions concerning their preferences, they would consider others' opinions. Boomers were the first to see religion as a social networking opportunity. Boomers were also the first who started to incorporate exercise into

their lifestyles for the purpose of body definition. When it came to the purchase of a home, boomers wanted to buy the biggest house they could afford.

Boomers wealth is of \$28 trillion with a median net worth of \$112,048 (Coleman, Hladikova, & Savelyeva, 2006). Approximately two thirds of boomers have reached the recommended investment assets to net worth ratio, and three quarters of boomers have kept a debt to asset ratio beneath the recommended levels. Bankruptcy was greatly seen in past generations due to job loss, medical costs, marital disruption, and the cost of caring for family members. Boomers have reached bankruptcy for the same reasons and especially for having high mortgages and consumer debt (Finke, Huston, & Sharpe, 2006).

Boomers workplace characteristics started to change from those of that the Swingers worked under. Boomers would have work ethic, but also money as a reason for them to be working for a company. When it came to work (like the swingers), work came first, then lifestyle. Boomers were expected to lead, but at the same time care what others thought about them. Baby boomers were more computer-challenged unlike the prior generation, which were better prepared on computers. This generation is loyal to the company they worked for and believed on having a chain of command. When it came to winning, in the workplace boomers only wanted to win. They were motivated a great deal by trying to keep themselves satisfied (Kennedy, 2002).

Kennedy (2002) describes what it is that motivates boomers to thrive. Money motivates boomers like swingers. In the workplace boomers thrive on the idea of promotion and wanting to move higher up the chain. Boomers, unlike

swingers, like public and peer recognition for their efforts. As boomers ascend, they desire to have subordinates, people that they can control and who will follow them. Unlike swingers, boomers are loyal to themselves, and not to the organization for which they work; they will search for better paying positions, rather than accumulating seniority in a company.

Boomers' social values were very different from those of the swingers. Boomers would consider themselves forced to support United Way. When it came to participating, they would devote their time to things like a battered women's shelter and the Rotary Club because it was considered good for business. Voting to boomers was something that was done only when it would be convenient to family and friends, and not a must, like swingers considered it (Kennedy, 2002). When it came to their buying habits, boomers preferred to buy prestigious products, and foreign products were often considered better than American-made (Kennedy, 2002; Littrell, 2005). As boomers age, their position in life changes, thereby changing their priorities in regard to what they want to accomplish.

Now that boomers begin to enter retirement age, they are starting to look at new opportunities for personal growth and self-expression (Littrell, 2005). Boomers are less likely to quit working after retirement; moreover, they are likely to start new endeavors because of their desire to contribute to society and to have a reason to live (Coleman, Hladikova, & Savelyeva, 2006).

The Aging Population

The United States is reaching a point where it is going to gray rapidly because of low fertility rates. It is thought that when baby boomers pass away, age balance will return to normal. However, it is not going to happen in that order because of the bust, boom, bust fertility pattern. Society will change to gray even after the baby boom generation is gone (Munnell 2004). Differences in fertility will affect the U.S. population in the future. Fertility is not the only thing that affects population, but also immigration. Immigrants that come to the United States are in their prime working ages of 20 through 54 (Bouvier, 1991; Munnell, 2004). Immigrants are not accounted for within the American baby boom generations, however approximately an additional five percent of the age cohort are immigrants from other countries. By the year 2030, approximately ten percent of the cohort will be immigrants. Business planners and social service providers must consider foreign-born baby boomers as well as American-born baby boomers because they may have different needs, attitudes, and expectations (Bouvier, 1991).

Living Arrangements

According to statistics from the Administration on Aging (AOA) from the U.S. Department of Health and Human Services, people of age sixty-five and older had very similar marital status from 2005 and 2008. It is more probable for men to be married than women; statistics show seventy-two percent of men were married, and forty-two percent of women were married. More than forty percent or 8.8 million of women are widows and only fourteen percent or 2.2 million men

are widowers. The number of older people that are divorced or separated has increased from approximately 5.3 percent in 1980 to 11.6 percent in 2008. Only four percent of men and women have stayed single (never married) in both 2005 and 2008 (AOA, 2006 & 2009). As people age, they are starting to live alone and the household sizes are getting smaller (Mitchell, 2003). With more people living by themselves, senior living facilities can become a better option for the incoming retirees.

Even though the percentage of seniors living in institutional settings did drop from 4.5 percent in 2000 to 4.1 percent in 2008 the percentage does increase as seniors' age. Table 1 demonstrates how people have been divided into three categories ranging from 65 to 85 plus years of age for the years 2000 and 2008. The three categories show an increase of the residents living in an institutional setting (AOA, 2006 & 2009). Seniors moving in to an institutional type of setting might be influenced by a medical condition or disability.

Table 1

Population of Residents Stratified by Age in Institutional Settings

| | 65-74 | 75-84 | 85+ |
|------|-------|-------|-------|
| 2000 | 1.1% | 4.7% | 18.2% |
| 2008 | 1.3% | 3.8% | 15.4% |

There has been a decrease from 52 percent in 2002 to 38 percent in 2008 of older people that have reported having some type of disability. The percentage of residents under Medicare needing assistance in performing a daily living activity while in an institutional setting has decreased as well, but continues to be

significantly high (AOA, 2009). Table 2 shows the comparison between results from 2004 and 2007. Activities of daily living include things such as bathing, dressing, eating, and being able to get around the house. Some of the institutions in which the seniors go to live in are also equipped with supportive services (AOA, 2006 & 2009).

Table 2

Seniors Needing Assistance in Institutional Settings

| | 1 or 2 Disabilities | 3 or More Disabilities |
|------|---------------------|------------------------|
| 2004 | 91.3% | 76.5% |
| 2007 | 83% | 67% |

The National Long Term Care Survey from 1999 concluded that about eleven percent or 3.7 million of older people under Medicare received personal care. Most of the people living in community type environments receive formal or informal help. Formal help is considered to be care received from a service provider, and informal help is care received from family or friends. Over ninety percent of the 3.7 million people have a chronic disease that makes them have to receive some type of assistance on a daily basis (AOA, 2006 & 2009).

Overview of Senior Foodservice

With the increase of seniors in the U.S. population there will be more senior care communities which will require more practical retirement living options (Young & Brewer, 2001). The priority people place on dining facilities options change as people age (Moschis, Curasi, & Bellenger, 2003). With age, the ability to taste and smell also start to fade (Popper & Kroll, 2003). A careful

preparation of all aspects of the senior care community is likely to have a great influence on the level of satisfaction of resident including dining options.

Food should be a major concern to people living in assisted living facilities since nutrition is neglected or ignored (Chao & Dwyer, 2004). The elderly have different food preferences and a smaller intake of food. The smaller food portions are due to lower energy needs. The smaller food portions might be good for the lower energy levels, but at times the necessary nutrient levels are not met. With seniors losing their sense of taste and smell, their satisfaction with the food becomes problematic. The dietary concerns and baby boomers' interest in health suggests there should be a bigger demand for good-tasting and nutrient dense foods (Popper & Kroll, 2003). Some SCC give top priority to nutrition therapy for its residents, while other SCC place more emphasis on dining room amenities (Chao & Dwyer, 2004).

According to Chao and Dwyer (2004) there are three different types of dining room facilities and a future assisted living style. The three current dining styles are restaurant/resort, medical/health, and home style. The future dining style can be considered a hybrid since it is a combination of various current dining facilities styles. Table 3 details each of the dining facility amenities, food service operation, and general nutrition services offered.

Table 3

Types of Food and Nutrition Services for Elders in Assisted Living Facilities

| | | |
|---|--|--|
| <p>RESTAURANT, RESORT</p> <p>Dining Room Amenities Attractive, pleasant Emphasis on aesthetics and social interaction Waiters serve meals, generous portion Meals served at any time Extensive menu choices</p> <p>Food-Service Operation Professional chefs Food purchasing focus on grades, freshness High sensory appeal</p> <p>General Nutrition Services Focus on flavor and presentation No nutritional requirement goals Elaborate and trendy menu items Recipes modified for flavor, taste, and appearance. No clinical nutrition services</p> <p>Clinical Nutrition Services Special needs not addressed No R.D. involvement</p> | <p>General Nutrition Services Focus on total diet nutritional content Meets nutritional requirements, R.D. approved menus Therapeutic (healthful) menu items Recipes modified for nutritional value Nutrition education, screening, and counseling available</p> <p>Therapeutic Nutrition Services Special needs met R.D. reviews general and therapeutic nutrition needs</p> | <p>Clinical Nutrition Services Sometimes therapeutic needs are met, R.D. involvement varies (community or hospital service)</p> |
| <p>MEDICAL, HEALTH</p> <p>Dining Room Amenities Bedside or communal eating environment Minimal attention to aesthetics, social interaction Attendants serve meals, altered portions Scheduled mealtimes Limited menu choices</p> <p>Food-Service Operation Institutional preparation methods and sanitation standards Food purchasing focus on nutritional value Sensory appeal not top priority</p> <p>(Chao & Dwyer, 2004)</p> | <p>HOME STYLE</p> <p>Dining Room Amenities Attractive eating environment (variable) Variable attention to aesthetics, social interaction No table service, portion size varies Meals served any time Moderate menu choice</p> <p>Food-Service Operation Traditional preparation methods Food purchasing focus on individual preferences Sensory appeal varies</p> <p>General Nutrition Services Focus on total diet quality and nutritional content (variable) Nutritional requirements sometimes met Familiar and traditional menu items Recipes modified for taste and individual preferences Community nutritional services (if available)</p> | <p>FUTURE ASSISTED LIVING STYLE (HYBRID)</p> <p>Dining Room Amenities Attractive eating environment Special attention to aesthetics, social interaction Waiters serve meals, portion controlled Scheduled mealtime with flexible services Reasonable and moderate choice</p> <p>Food-Service Operation Traditional preparation methods adjusted to institutional sanitation standard Food purchases focus on quality, nutrition value, preference High sensory appeal (herbal seasonings)</p> <p>General Nutrition Services Focus on total diet (nutritional content, flavor, presentation) Meets nutritional requirements, R.D. plans and evaluates menus Familiar and healthful nutritious menu items Recipes modified for flavor, preference, and nutrition value Nutrition education, screening, and counseling services offered</p> <p>Clinical Nutrition Services Therapeutic needs met according to residents and facility' agreement R.D. reviews general and special nutrition need</p> |

SERVQUAL

SERVQUAL can be defined as an instrument used to measure customers perceptions of service quality through a multiple-item scale. SERVQUAL has been replicated by published studies for its framework, and its scales' validity and reliability (Parasuraman, Berry, & Zeithaml, 1991). SERVQUAL includes twenty-two items corresponding to five dimensions, which are tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman, Berry, & Zeithaml, 1988).

SERVQUAL is customarily used to assess customers' perceptions of service quality in service and retailing environments (Parasuraman, Berry, & Zeithaml, 1988). The SERVQUAL model shown in figure 2 demonstrates the five gaps that are measured in order to assist in obtaining high satisfaction levels. GAP 1 shows the consumer's expectations and the manager's perception gap. GAP 2 is the management's perception and the service quality specification gap. GAP 3 is service quality specifications to service delivery gap. GAP 4 measures service delivery to the external communication gap. The last gap is the measure between the expected service and the perceived service gap (Parasuraman, Zeithaml, & Berry, 1985). Each gap demonstrates a part of what constructs a person's perception of quality service.

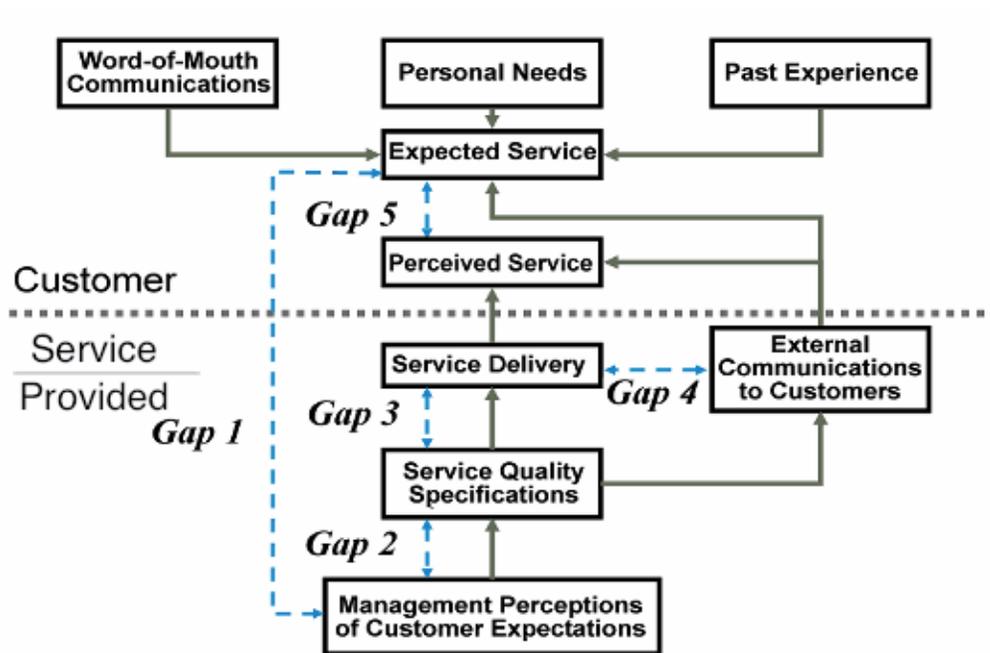


Figure 2. Service Quality Model

DINESERVE

DINESERVE is a dining measuring instrument adapted from SERVQUAL. DINESERVE is a 29 item survey on a seven-point scale. The instrument was created to determine the quality of service in restaurants. This instrument was developed to provide continual assessments of customers' perception to check if any change to a customer's perception resulted in change of expectations or service quality (Stevens, Knutson, & Patton, 1995).

Need for the Study

In the United States by the year 2020, approximately 25 percent of the population will be over the age of 60 with a lifespan that will increase past the age of 85 (Popper & Kroll, 2004). With the high number of seniors retiring and those that will be going on to live in retirement communities or senior care facilities, it is time to start researching and planning for the needs and demands of the incoming cohorts. The generations that are in senior care communities and those that will be coming in, are of different taste and beliefs, therefore having different opinions of what is considered good quality service.

CHAPTER III
METHODOLOGY

Study Sample

The research sample consisted of residents at a senior care community in Lubbock, Texas. The community population consists of 450 residents of which 287 residents live in independent living quarters the remaining 163 residents are in the assisted living facility. The 287 residents living in the independent living sector of the community were delivered the surveys. From the 287, 109 were collected; the response rate was 38%. Of the 109 surveys there were two invalid surveys as the residents offered more than one answer on a number of questions. The invalid surveys were removed from the data set to produce more accurate statistical results.

Survey Development and Administration

The instrument was adapted from the five SERVQUAL dimensions. The survey consisted of questions based on reliability, assurance, responsiveness, tangibles, and empathy. This instrument was adopted in order to investigate the residents' satisfaction toward each of the individual dimensions.

The survey consisted of thirty-nine questions based on six categories and a section for additional comments. The categories consisted of: (1) demographics, (2) service, (3) physical environment, (4) employees and managers, (5) menu and food, and (6) assurance and overall satisfaction. Demographics, service, and assurance and overall satisfaction consisted of six questions per category. Physical environment had seven questions; employees

and management nine questions, and lastly food and menu consisted of five questions. The survey used a five point Likert scale that ranged from (1) *strongly disagree* to (5) *strongly agree* (Appendix A).

The one modification made from the original survey was a change in the format of the survey. The font size was increased from the standard twelve point to thirteen and fourteen point fonts. By increasing the font size it would be easier for respondents to read the material. Having made this consideration, the researcher was able to secure a higher response rate from the residents.

Data Collection

Following approval of the protocol and study by the Texas Tech Internal Review Board (Appendix B), respondents were recruited at the senior care community facility. The surveys were distributed and collected by staff of the senior care facility. The recruitment process involved placing a survey attached with a letter from the Director of the senior care community explaining the purpose and legitimacy of the survey. If the residents were willing to participate they returned the completed survey to a drop off box. Recruitment was through convenience sampling. A total of 107 residents participated.

Data Analysis

All data were coded into the SPSS (Statistical Package for Social Sciences) program in order to analyze and obtain statistical data. Descriptive analysis was used to describe the socio-demographic data received from the surveys. Through SPSS data analysis, frequencies and percentages were generated.

Chronbach's Alpha was used in order to determine the correlation between the data received from the surveys and to measure its reliability (Santos, 1999). The reliability test was performed to make sure that all data was consistent throughout the tests performed.

Data were processed by a T-test to assess the mean between two groups. To compare differences in preferences based on gender, the T-test was used. ANOVA (Analysis of Variance) was used to compare means of demographic characteristics. Utilizing ANOVA reduces the risk of Type I error because of the avoidance of running multiple T-tests. Multiple regression analysis was used to detect the relationship between variables. Of the variables tested multiple regression showed which variables affected over customer satisfaction the greatest.

CHAPTER IV
RESULTS AND DISCUSSION

Demographics

The socio-demographic data received from the surveys are exhibited on table 4. From the 287 surveys, 109 (38%) were collected, and 107 (37.2%) were used for statistical analysis. Males constituted 31.8% and females 66.4% of the total respondents. The two largest age groups at the senior care community were between the ages of 81 to 85 and 86 to 90 years old, which accounts for 30.8% each a total of 61.6%. The residents with income levels less than \$50,000 a year accounted for 24.3%, while residents with incomes over \$100,000 made up 12.1%. The largest percentage of residents (31.8%) had incomes between \$50,001-\$75,000. The majority of residents based on length of tenure at the facility were divided into two groups: (1) two years or less and (2) five years or longer. Residents that had been in the community for two years or less accounted for 27.1%, while residents who have lived there for over five years accounted 49.5%. The marital status of the respondents was 29.2% for people who were married and 66.4% for those widowed. When assessing the manner in which meals were prepared prior to moving in the facility, most respondents indicated they prepared their own meals, while a smaller percentage, 22.4%, indicated their spouse prepared the meals. The location where most of the respondents indicated they consumed their meals prior to moving in the facility was at home with 81.9% while 18.1% of the respondents would eat out of their home for most of their meals.

Table 4

Demographic Characteristics of the Senior Care Community (n=107)

| Variable | Frequency | % |
|---------------------------|-----------|-------|
| Gender | | |
| Male | 34 | 31.8% |
| Female | 71 | 66.4% |
| Missing | 2 | 1.9% |
| Age | | |
| Less than 75 years old | 5 | 4.7% |
| 76-80 | 13 | 12.1% |
| 81-85 | 33 | 30.8% |
| 86-90 | 33 | 30.8% |
| More than 91 years old | 14 | 13.1% |
| Missing | 9 | 8.4% |
| Income Status | | |
| Less than \$50,000 | 26 | 24.3% |
| \$50,001-\$75,000 | 34 | 31.8% |
| \$75,001-\$100,000 | 14 | 13.1% |
| More than \$100,000 | 13 | 12.1% |
| Missing | 20 | 18.7% |
| Tenure at Dwelling | | |
| Less than 2 years | 29 | 27.1% |
| 2-3 years | 9 | 8.4% |
| 3-4 years | 10 | 9.3% |
| 4-5 years | 5 | 4.7% |
| More than 5 years | 53 | 49.5% |
| Missing | 1 | .9% |
| Marital Status | | |
| Married | 31 | 29.2% |
| Single | 4 | 3.7% |
| Widowed | 71 | 66.4% |
| Meal Preparer | | |
| Self | 74 | 69.2% |
| Spouse | 24 | 22.4% |
| Other | 4 | 3.7% |
| Missing | 5 | 4.7% |
| Dining Location | | |
| Home | 86 | 81.9% |
| Out | 19 | 18.1% |
| Missing | 2 | 1.9% |

Reliability

Cronbach's Alpha test for reliability was used to confirm the internal consistency of the survey (Santos, 1999). The minimal acceptable reliability coefficient was set at .70, however those items which received a higher the score indicated a higher level of reliability. The test was based on the thirty-four questions dealing with the foodservice at the SCC. The output alpha was .963, making this survey a reliable instrument.

Factor analysis was used to confirm that the five survey dimensions correlated. Table 5 illustrates the Cronbach's Alpha output of the five dimensions. Each dimension had an acceptable reliability coefficient of .70 and like the survey reliability test the higher the score the better the dimensions correlate.

Table 5

Factor Analysis of Respondents from the Senior Care Community (n=107)

| <u>Dimension</u> | <u>Cronbach's Alpha</u> |
|------------------|-------------------------|
| Tangibles | .898 |
| Reliability | .838 |
| Responsiveness | .771 |
| Assurance | .791 |
| Empathy | .856 |

Table 6 demonstrates the questions that were included in each dimension. Tangibles included the physical facility, the equipment, and appearance of the personnel. Reliability was measured by assessing the personnel ability to

perform promised service dependably and accurately. Responsiveness is the willingness of the staff to help customers and provide prompt service. Assurance is the dimension of staff's knowledge, courtesy, and ability to inspire trust and confidence toward the residents. Empathy is based on the level of caring and individualized attention the customers receive (Parasuraman, Zeithaml, & Berry, 1988).

Table 6

Survey Questions: Sorted by the Five Dimensions

Tangibles

- The dining facility has visually attractive building exteriors.
- The dining facility has a visually attractive dining area.
- The dining facility has décor that keeps with its image and price range.
- The dining facility has a dining area that is comfortable and easy to move around in.
- The dining facility has comfortable seats in the dining room.
- The dining facility provides handicapped accessibility in the dining room.
- The dining facility has dining areas that are clean.
- The dining facility has staff members who are clean, neat, and appropriately dressed.
- The dining facility has a menu that is easy to read.
- The dining facility has a visually attractive menu.

Reliability

- During busy times, employees shift to help each other maintain speed and quality of service.
- The dining facility has personnel who seem well trained, competent, and experienced.
- The dining facility serves you in the time promised.
- The dining facility serves your food exactly as you ordered it.
- The dining facility gives extra effort to handle you special request.
- The dining facility provides dependable and consistent service.

Responsiveness

- The dining facility has employees who can answer your questions completely.
- The dining facility has employees who are both able to and willing to give you information about menu items (ingredients, preparation, etc.).
- The dining facility quickly corrects anything that is wrong.
- The dining facility provides prompt and quick service.

Assurance

- The dining facility makes you feel comfortable and confident in your dealing with them.
- The dining facility makes you feel personally safe.
- The dining facility is sympathetic and reassuring if something is wrong.

Empathy

- Managers of the dining facility support their employees so that they can do their jobs well.
 - The dining facility has employees' who are sensitive to your individual needs and wants.
 - Managers of the dining facility seem to have the customers' best interest at heart.
 - Employees of the dining facility seem to have the customers' best interest at heart.
-

Research Questions

The following questions were formulated to test the research objectives for this study:

Research Question 1

What is the relationship between the five SERVQUAL dimensions to the overall satisfaction level of the residents of the senior care community?

The five SERVQUAL dimensions were tested by an ANOVA to determine which dimensions were most significant to residents' overall satisfaction levels. Figure 3 illustrates the framework of how each dimension influences overall satisfaction. Table 7 demonstrates how each of the dimensions was measured. Tangibles and reliability were most significantly related to the respondents' overall satisfaction. Reliability had the highest relationship to the respondents' overall satisfaction with a coefficient of .530 followed by tangibles with the coefficient of .301. Responsiveness, assurance, and empathy were not significantly related to the respondents' overall satisfaction due to their low coefficient score.



Figure 3. Overall Satisfaction Model

Table 7

ANOVA: Contrast of Dimensions Related to Overall Satisfaction

| Variables | <i>B</i> | <i>SE B</i> | <i>B</i> |
|-----------------------|----------|-------------|----------|
| Tangibles | .301 | .141 | .224*** |
| Reliability | .530 | .152 | .451*** |
| Responsiveness | .133 | .141 | .118*** |
| Assurance | .029 | .130 | .023** |
| Empathy | .042 | .126 | .035** |
| <i>R</i> ² | | .608 | |
| <i>F</i> | | 31.290*** | |

Notes: *** $p < .001$, ** $p < .05$

Research Question 2

What is the relationship between food temperature, flavor, and portion size to the overall meal satisfaction level of residents?

The relationship between food temperature, flavor, and portion size to the overall meal satisfaction level was tested through multiple regression. The independent variables were food temperature, flavor, and portion size to the dependant variable, meal satisfaction. Table 8 details how the meal satisfaction level was measured through the three dimensions. The temperature and flavor of the food were significantly related to the residents' meal satisfaction level; however, portion size did not affect the satisfaction level of meals. Figure 4 models how the individual variables correlate with the dependent variable. The meal temperature had the highest impact on residents' meal satisfaction level. The portion size of the food did not affect residents' meal satisfaction levels.

The simple linear regression equation relationship could be expressed as:

$$\text{Meal satisfaction} = .752 + .429 \cdot \text{TEM} + .351 \cdot \text{FLA} + .106 \cdot \text{POR}$$

Thus, the equation means if temperature, flavor, and portion size are zero, the residents' meal satisfaction level is .752 (constant). The constant is residents' basic satisfaction level without any dimensions.

Table 8

Contrast of Dimensions Related to Meal Satisfaction

| Variables | <i>B</i> | <i>SE B</i> | <i>B</i> |
|-----------------------|----------|-------------|----------|
| Temperature | .429 | .103 | .425*** |
| Flavor | .351 | .119 | .319*** |
| Portion Size | .106 | .081 | .099 |
| Constant | .752 | .329 | |
| <i>R</i> ² | | .551 | |
| <i>F</i> | | 40.034 | |

Notes: *** $p < .001$,



Figure 4. Meal Satisfaction Model

Research Question 3

Are residents satisfied with the food at the senior care community?

Overall, residents are satisfied with meals even though they had the lowest satisfaction score in comparison with service and employees attitudes.

With an acceptable satisfaction score set above three. Meal satisfaction received

an overall mean of 3.85 out of a five-point Likert scale. The score was calculated by averaging the 107 respondents' responses.

Research Question 4

Are residents satisfied with the service at the senior care community?

The score received for service satisfaction was above the mean of the five point Likert scale. The acceptable satisfaction score was set above three. The service satisfaction average received was 4.16. The score was calculated by averaging the 107 respondents' responses.

Research Question 5

Are residents satisfied with employees' attitudes at the senior care community?

Overall, residents are satisfied with employee's attitude. With an acceptable satisfaction score set above three. The attitude of employees received an overall average of 4.39 out of a five-point scale. The score was calculated by averaging the 107 respondents' responses.

Research Question 6

Is there a difference in satisfaction levels based on gender?

According to the T-test measuring residents' satisfaction levels; residents are satisfied with the service being offered. The variables used to measure the satisfaction level were meal satisfaction, service satisfaction, and employees attitude toward residents. Table 9 shows how the residents' satisfaction level was based. This test also shows the satisfaction levels comparing males and females. The difference between males and females is that females are less

satisfied with the meal, service, and employees' attitude at the senior care community. However, there was no statistical significance in the satisfaction levels between males and females.

Table 9

T-Test: Comparison of Meal Satisfaction Levels Based on Gender

| Variables | Male | Female | T-value | P-value |
|--|------|--------|---------|---------|
| Meal | 4.06 | 3.76 | 1.38 | 0.17 |
| Service | 4.21 | 4.07 | 0.81 | 0.42 |
| Attitude | 4.47 | 4.37 | 0.77 | 0.44 |
| <i>Overall Average</i> (.05 Significance level) | 4.25 | 4.06 | | |

Research Question 7

Is there a difference in satisfaction level based on tenure at the senior care community?

To measure the satisfaction level of the residents based on tenure, meal, service, and attitude were compared by length of tenure at the SCC. The most significant satisfaction changes were related to meal satisfaction. Residents that have lived two years or less at the SCC received a mean of 4.31, those that have been there two to five years had a twenty percent satisfaction drop to 3.46, but then increased to 3.75 for those residents that had been living on the facility for five years or more. Figure 5 details the respondents' change in satisfaction based on years of tenure. The years of tenure by establishing the following stages (1) less than two, (2) two to five, and (3) five and more. The mean score is above three throughout the stages measured allowing for an assumption that residents are satisfied with the food at the senior care community. The decrease

of satisfaction can be explained through the Kübler-Ross five stages of grief: denial, anger, bargaining, depression, and acceptance. Laurence and Weikart (1984) state that grief is caused because of the loss of a role, status, or a home. Some of the symptoms caused by grief are noticeable weight loss and malnutrition. Senior care community residents are less likely to be noticed in regard to changes in physical and emotional status as a result of grief because there are no common reference points for those observing their behavior (Laurence & Weikart, 1984). Figure 6 shows the Kübler-Ross stages of grief model which corresponds closely to the meal satisfaction levels established in Figure 5.

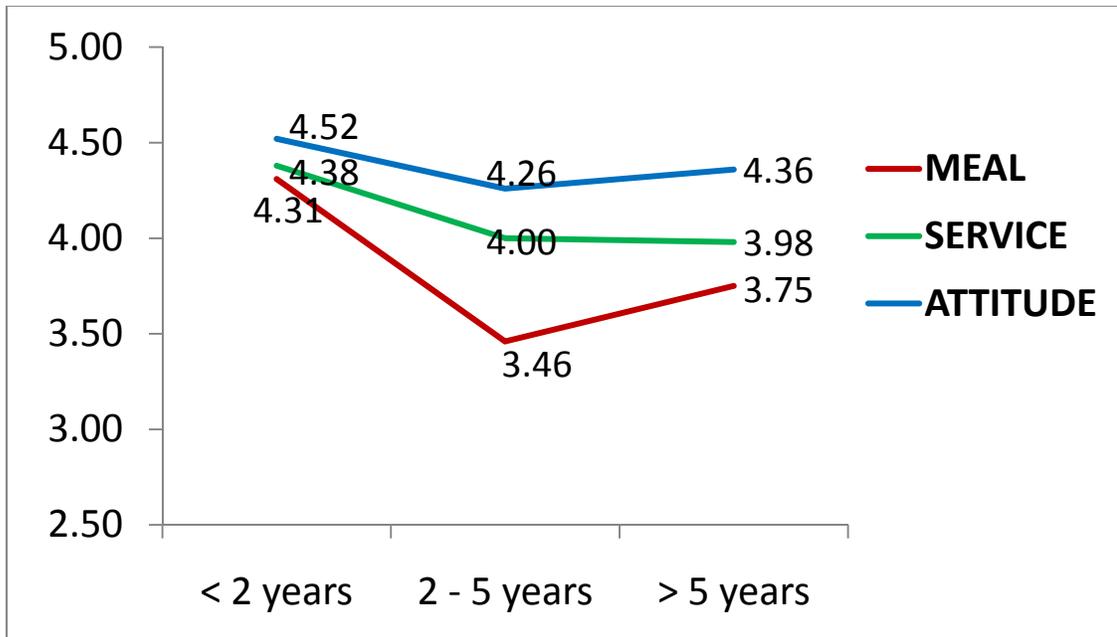


Figure 5. Satisfaction Change According to Tenure

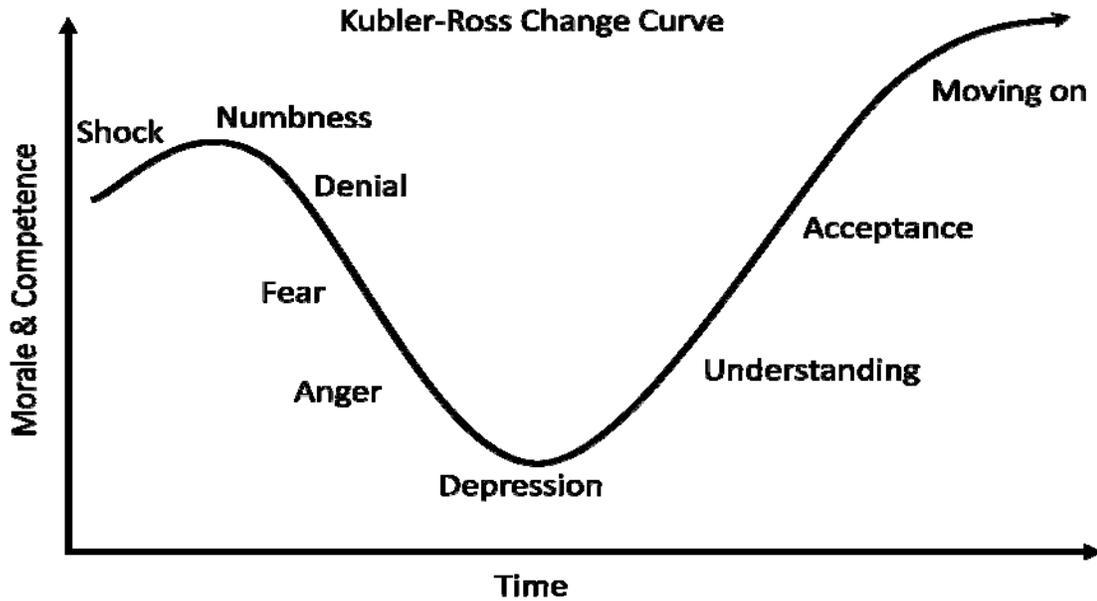


Figure 6. Kübler Ross Change Curve According to Tenure (Kubler-Ross, 1969)

Research Question 8

Do residents who previously dined out often have higher expectations of the foodservice quality at their current senior care community?

Residents' expectations toward the foodservice at the senior care community were measured through the T-test. Table 10 shows how residents' expectations were based off whether residents liked to eat at home or dine out. The alpha level for this test was set at .05. Because the P-value of .884 was above the .05 alpha level chosen for statistical significance the test justifies there is no relationship between residents' expectations at the senior care community and residents' previous dining experiences.

Table 10

T-Test: Resident Expectations (n=107)

| <i>Variables</i> | <i>Home/Out</i> | <i>T-value</i> | <i>P-Value</i> |
|------------------|-----------------|----------------|----------------|
| Dining Type | 3.85 / 3.89 | -.147 | .884 |

CHAPTER V

SUMMARY AND CONCLUSION

The aging post World War II generations, swing and baby boomers that affected nations such as the United States, Japan, and Europe among others, are now reaching retirement age; the two generations form a large segment of the population therefore causing major changes in demographics and economies (Coleman, Hladikova, & Savelyeva, 2006). Because of the size of these cohorts they will be making a great demand on retirement homes as they have on every other life cycle that they have lived through that called for a home purchase (Myers & Ryu, 2008).

Moreover, the cohorts coming in to senior care communities are now requiring different levels of care for their later years. Senior care communities should prepare themselves with continuum care services such as: apartment style living, assisted living, skilled nursing units, and hospices.

The purpose for conducting this study was to evaluate residents' satisfaction levels with the foodservice from the senior care community in Lubbock, Texas. Furthermore, it was to investigate the factors that influenced the overall customer satisfaction level.

Findings of the Study

In this study, five dimensions were studied in order to identify the overall foodservice satisfaction at the senior care community. Each dimension consisted of independent variables that influenced the overall satisfaction ratings. There were six research questions that were addressed in the research.

The first research question was tested by ANOVA. This tested the relationship between the five SERVQUAL dimensions to the overall satisfaction level of the residents of the senior care community. Tangibles and reliability were most significantly related to the respondents' overall satisfaction. Reliability had the highest relationship to the respondents' overall satisfaction levels with a coefficient of .530 followed by tangibles with the coefficient of .301. Responsiveness, assurance, and empathy were not significantly related to the respondents' overall satisfaction due to their low coefficient score.

Research question two was tested through multiple regression analysis which tested the relationship between food temperature, flavor, and portion size to the overall meal satisfaction level. The independent variables were food temperature, flavor, and portion size that influenced the dependant variable, meal satisfaction. The temperature and flavor of the food were significantly related to the residents' meal satisfaction levels; however, portion size did not affect the satisfaction level of meals. The meal temperature had the highest impact on residents' meal satisfaction. The portion size of the food did not affect residents' meal satisfaction.

Research question three was tested by calculating the average from residents' survey responses. It is safe to state that residents are satisfied with the food served even though they gave it the lowest satisfaction score in comparison with service and employees attitudes toward the residents. With an acceptable satisfaction score set above three; meal satisfaction received an overall mean of 3.85 out of a five-point scale.

Research question four measured the satisfaction level for the service at the senior care community. Service satisfaction was above the mean of the five point Likert scale. The acceptable satisfaction score was set above three. The service satisfaction average received was 4.16. The score was calculated by averaging the 107 respondents answers.

Research question five measured the satisfaction level with employees' attitudes at the senior care community. It can be speculated that residents at the senior care community are satisfied with employees' attitude with an acceptable satisfaction score set above three. The attitude of employees received an overall average of 4.39 out of a five-point scale. The score was calculated by averaging the 107 respondents answers.

Research question 6 measured the difference in satisfaction levels based on gender. A T-test measured residents' satisfaction levels. The variables used to measure the satisfaction level were meal satisfaction, service satisfaction, and employees attitudes toward residents. The difference between males and females is that females are less satisfied with the meal, service, and employees' attitude at the senior care community however there was no statistical significance in the satisfaction levels between males and females.

Research question 7 was concerning the difference in satisfaction levels based on tenure at the senior care community. To measure residents' satisfaction level with the three dimensions of food, service, and attitude based on the length of tenure at the facility. The most significant satisfaction changes were to meal satisfaction. The mean score stayed above three throughout the

stages measured allowing for an assumption that residents are satisfied with the food at the senior care community. The decrease of satisfaction can be explained through the Kübler-Ross five stages of grief.

Research question 8 was concerning residents expectations based on their previous dining experiences. Residents' expectations toward the foodservice at the senior care community were measured by a T-test. The alpha level for this test was set at .05. The P-value received was of .884. The test justified that there is no relationship between residents' expectations at the senior care community and residents' previous dining experiences.

Limitations

The community size and recruitment site limits the generalizability of this study. There was a limit in respondents in this study; only 38% of residents participated by completing the survey. Having only one recruitment site minimizes the possibility of generalizing this research study to other senior care living communities.

Future Research

The second phase to this study should evaluate the current service situation and propose ways to improve residents' satisfaction and actual behavior. The objectives would be to explore how service management such as food and service quality influences residents' satisfaction levels and actual food consumption as well as to investigate physical factors influencing residents' service evaluation, satisfaction, and actual behavior. The objectives would be to

evaluate the overall dining service and to compare the various dining areas if more than one is available.

Conclusion

This study was conducted to evaluate residents' satisfaction levels with the foodservice from a senior care community in Lubbock, Texas. A factor analysis identified two dimensions that affected residents' overall foodservice satisfaction: tangibles and reliability. In order to determine the relationship between the independent variables and dependent variables, a multiple regression analysis was conducted, and the results showed that two factors were highly related to the overall satisfaction of the residents. It is also showed that employees' attitudes had the highest correlation to the overall satisfaction level.

Based on the results of this study, the recipients are satisfied with the overall service being provided at the senior care community. All the average scores of the items tested were above average in a five-point scale. If the senior care community focuses more on temperature and flavor of food it may improve residents' meal satisfaction levels. By also focusing on tangibles and reliability it may increase residents' overall satisfaction levels.

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APPENDIX A

Questionnaire Distributed at the Senior Care Community



Dining Services Survey

I am conducting a research study about the senior care dining services. Your participation and your opinions are very important. It will take about 15 minutes to complete this questionnaire. There are no right and wrong answers. I am only interested in your honest opinions. Your responses will be anonymous and will not be associated with you personally in anyway.

Thank you for your time and help!

Your participation in this study is purely voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled and you may discontinue participation at any time. Please contact Dr. Ben Goh at 806 742 3068 with any questions or concerns. Thank you for your time and help!

Before moving to the community, where did you eat most of your meals?

(choose one only)

- Home Cooked Take-out eaten at home
 Dined out in restaurants Dined out other

If you had home cooked meals prior to moving to the community, who prepared the meals?

- Self Spouse Other

Please indicate your marital status:

- Married Single
 Divorced Widowed

Please indicate your gender:

- Male Female

What year were you born? _____

How long have you lived at the senior care community? _____ Years.

Do you live with your spouse at the community? Yes No

Please indicate your annual income from all sources:

- Less than \$50,000 \$50,001 - \$75,000
 \$75,001 - \$100,000 More than \$100,000

| Please indicate your position on the following statements by circling the number that most reflect how you feel. | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--|-------------------|----------|---------|-------|----------------|
| The dining facility has visually attractive building exteriors. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has a visually attractive dining area. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has a décor that keeps with its image and price range. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has a dining area that is comfortable and easy to move around in. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has comfortable seats in the dining room. | 1 | 2 | 3 | 4 | 5 |
| The dining facility provides handicapped accessibility in the dining room. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has dining areas that are clean. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has staff members who are clean, neat, and appropriately dressed. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has employees who can answer your questions completely. | 1 | 2 | 3 | 4 | 5 |
| During busy times, employees shift to help each other maintain speed and quality of service. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has employees who are both able and willing to give you information about menu items (ingredients, preparation, etc.). | 1 | 2 | 3 | 4 | 5 |
| The dining facility has personnel who seem well-trained, competent, and experienced. | 1 | 2 | 3 | 4 | 5 |
| Managers of the dining facility support their employees so that they can do their jobs well. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has employees who are sensitive to your individual needs and wants. | 1 | 2 | 3 | 4 | 5 |
| Managers of the dining facility seem to have the customers' best interests at heart. | 1 | 2 | 3 | 4 | 5 |
| Employees of the dining facility seem to have the customers' best interests at heart. | 1 | 2 | 3 | 4 | 5 |

| Please indicate your position on the following statements by circling the number that most reflect how you feel. | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--|-------------------|----------|---------|-------|----------------|
| The dining facility has a menu that is easy to read. | 1 | 2 | 3 | 4 | 5 |
| The dining facility has a visually attractive menu. | 1 | 2 | 3 | 4 | 5 |
| I am satisfied with the temperature of the food items served at the dining facility. | 1 | 2 | 3 | 4 | 5 |
| I am satisfied with the flavor of the food items served at the dining facility. | 1 | 2 | 3 | 4 | 5 |
| I am satisfied with the portion size of the food items served at the dining facility. | 1 | 2 | 3 | 4 | 5 |
| The dining facility serves you in the time promised. | 1 | 2 | 3 | 4 | 5 |
| The dining facility serves your food exactly as you ordered it. | 1 | 2 | 3 | 4 | 5 |
| The dining facility gives extra effort to handle your special requests. | 1 | 2 | 3 | 4 | 5 |
| The dining facility quickly corrects anything that is wrong. | 1 | 2 | 3 | 4 | 5 |
| The dining facility provides prompt and quick service. | 1 | 2 | 3 | 4 | 5 |
| The dining facility provides dependable and consistent service. | 1 | 2 | 3 | 4 | 5 |
| The dining facility makes you feel comfortable and confident in your dealings with them. | 1 | 2 | 3 | 4 | 5 |
| The dining facility makes you feel personally safe. | 1 | 2 | 3 | 4 | 5 |
| The dining facility is sympathetic and reassuring if something is wrong. | 1 | 2 | 3 | 4 | 5 |
| Overall, I am satisfied with the meals provided by the dining facility. | 1 | 2 | 3 | 4 | 5 |
| Overall, I am satisfied with the service of the dining facility. | 1 | 2 | 3 | 4 | 5 |
| Overall, I am satisfied with the attitude of employees at the dining facility. | 1 | 2 | 3 | 4 | 5 |
| Overall, the dining facility meets my expectation of foodservice quality. | 1 | 2 | 3 | 4 | 5 |

APPENDIX B

Internal Review Board Approval Letter



March 5, 2010

Dr. Kok Goh
Nutrition, Hospitality and Retailing (NHR)
Mail Stop: 1240

Regarding: 502288 Evaluating the elderly residents' satisfaction with meals and service at Carillon Senior Life Care Community in Lubbock, Texas

Dr. Kok Goh:

The Texas Tech University Protection of Human Subjects Committee approved your claim for an exemption for the proposal referenced above on March 2, 2010.

Exempt research is not subject to continuing review. However, any modifications that (a) change the research in a substantial way, (b) might change the basis for exemption, or (c) might introduce any additional risk to subjects must be reported to the IRB before they are implemented.

To report such changes, you must send a new claim for exemption or a proposal for expedited or full board review to the IRB. Extension of exempt status for exempt projects that have not changed is automatic.

The Texas Tech University Protection of Human Subjects Committee approved your claim for an exemption for the proposal referenced above on March 2, 2010.

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To report such changes, you must send a new claim for exemption or a proposal for expedited or full board review to the IRB. Extension of exempt status for exempt projects that have not changed is automatic.

The IRB will send annual reminders that ask you to update the status of your research project. Once you have completed your research, you must inform the Coordinator of the Committee either by responding to the annual reminder or by notifying the Coordinator by memo or e-mail (donna.peters@ttu.edu) so that the file for your project can be closed.

Sincerely,

Rosemary Cogan, Ph.D., ABPP
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