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Perceived Service and Food Quality, Satisfaction, and Behavioral Intentions in Senior Retirement Communities

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ABSTRACT

Quality of life becomes a critically important issue in the seniors' later years. This trend has drawn huge attention and higher demand for senior retirement communities because it provides the elderly a flexible and safe living environment. The specific objectives of this study were (1) to test the impact of service quality on residents' satisfaction and behavioral intentions, (2) to examine the impact of food quality on residents' satisfaction and behavioral intentions, (3) to identify how residents' satisfaction affects residents' behavioral intentions, and (4) to investigate the relationship between retention to restaurant and retention to senior retirement center. The result indicated that service quality did not positively influence retention to restaurant with corresponding estimate of .05. This implies that service quality impacts on retention to restaurant by mediating residents' satisfaction. Also, more satisfied residents are more likely to retain to the restaurant; furthermore, those residents simultaneously tend to show more positive behavioral intention to the community.

Keywords: *senior retirement communities, service, food quality, satisfaction*

INTRODUCTION

According to Mitchell & Kemp (2000), the life expectancy of Americans is getting longer, also causing an increase in the aging of the American population. Thus, quality of life becomes a critically important issue in the senior' later years. This trend has drawn huge attention and higher demand for senior retirement community because it provides the elderly a flexible and assured living environment (Huang & Shanklin, 2008). Senior retirement communities, or assisted-living facilities, are residential settings that provide personal service care and higher level of assistance (Chao, Houser, Tennstedt, Jacques, & Dwyer, 2007). One important and the most basic role of senior retirement communities is providing dining service. Eating is considered one of the most important aspects of daily life for the elderly residing in senior retirement community (Position of the American Dietetic Association, 2000). West, Ouellet, & Ouellette (2003) indicated that mealtime enjoyment and nutritional well-being improve the residents' health status and quality of life. As indicated above, food and eating are a critical issue in senior retirement communities and will even impact on residents' quality of life (Kerschner & Pegues, 1998). Several previous studies showed that poor dining service quality and food quality lead to decreased food intake among senior retirement communities residents (Chambers, 1996; Morley, 1997). Moreover, food and dining service quality are important factors when residents select and evaluate senior retirement communities (Huang & Shanklin, 2008). Therefore, controlling residents' perceived service and food quality, and satisfaction is important for senior retirement community operators. There are not many studies focused on residents' perceived service and food quality, satisfaction, and behavioral intentions (O'Hara, Happer, Kangas, Debeau, Borsutzky, & Lemire, 1997; Lee, Shanklin, & Johnson, 2003; Huang & Shanklin, 2008).

Purpose of the Study

The specific objectives of this study were (1) to test the impact of service quality on residents' satisfaction and behavioral intentions, (2) to examine the impact of food quality on residents' satisfaction and behavioral intentions, (3) to identify how residents' satisfaction affects residents' behavioral intentions, and (4) to investigate the relationship between retention to restaurant and retention to senior retirement center.

Definitions of Constructs

Service quality has been considered as one of the most critical factors influencing customers satisfaction in the foodservice market (Parasuraman, Zeithaml, & Berry, 1988). Specifically in this study, service quality is the residents' perceived quality of the foodservice setting at senior retirement communities. In addition to service quality, food quality is another important component in the foodservice industry (Sulek & Hensley, 2004). Satisfaction is considered as customers' judgement after consuming products or service (Oliver, 1997) and is defined as a post purchase evaluation about the purchase decision (Day, 1984). Behavioral intentions are specifically expressed revisit intentions, positive word-of-mouth, and willingness to recommend to others (Zeithaml, 1988).

A Conceptual Model and Research Hypotheses

Figure 1 presents the conceptual model proposed in this study. The theoretical model examines the relationships among service quality, food quality, satisfaction, retention to restaurant, and retention to senior retirement community. Based on the theoretical foundations and empirical studies, this study proposed the following hypotheses:

Hypothesis 1a. Service quality positively influences residents' satisfaction.

Hypothesis 1b. Food quality positively influences residents' satisfaction.

Hypothesis 2a. Service quality positively influences retention to restaurant.

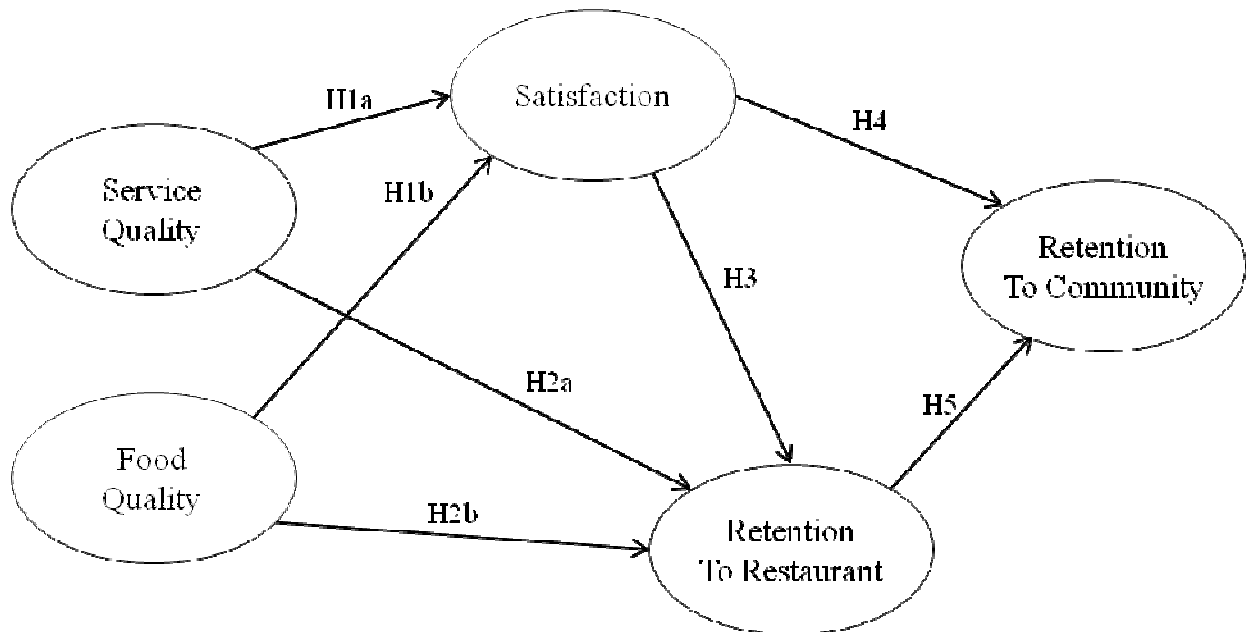
Hypothesis 2b. Food quality positively influences retention to restaurant.

Hypothesis 3. Residents' satisfaction positively influences retention to restaurant.

Hypothesis 4. Residents' satisfaction positively influences retention to community.

Hypothesis 5. Retention to restaurant positively influences retention to community.

Figure 1
Conceptual Model



METHODOLOGY

Research Instruments

A self-administered questionnaire was developed for this study to measure residents' perceived service and food quality, satisfaction, and behavioral intentions. The questionnaire consisted of five sections: residents' perceived service and food quality, residents' satisfaction, retention to restaurant, retention to community, and demographic information. All constructs included in the proposed model were measured using multi-item scales. Residents' perception items were developed based on previous satisfaction studies (Lengyel et al., 2004; Ha & Jang, 2010a), but modified to fit senior retirement community. Sections one through four were measured using 7-point Likert-type scales ranging from 1 (strongly disagree) to 7 (strongly agree). Section five was collected to profile demographic information. Before the questionnaire was finalized, a professor in the hospitality field and two directors currently working at the senior retirement community reviewed the questionnaire to assure the content reliability. Research protocol regarding protection of human subject were followed and approved by institutional review board.

Study Sample and Data Collection

Total possible population in this community was 250 residents, who were residing at the assisted living section of the senior community facility. For data collection, the survey was conducted at the senior retirement community in West Texas. The researchers distributed questionnaires to diners at three restaurants in the senior retirement community. Of the 250 residents, 144 usable questionnaires were collected which represented a 57.6% response rate.

Data Analysis

Data was compiled and statistically analyzed using SPSS (version 17) and AMOS (version 16). The data were analyzed following Anderson and Gerbing's (1988) two-step approach: a measurement model and a subsequent structural model. The multiple-item scales of five constructs were subjected to a confirmatory factor analysis (CFA) to determine the hypothesized latent variables, and the CFA assessed the overall model fit of the measurement model. After the CFA, structural equation modeling (SEM) was conducted to test the proposed inter-relationships among perceived service and food quality, satisfaction, retention to restaurant, and retention to community. For the statistical inference, the probability value (*p*-value) of a statistical test is set at .05. Descriptive statistics described the respondents' demographic information in frequencies and percentages, and the measurement reliability test was conducted to indicate the internal consistency with suggested cutoff of .70 (Nunnally, 1978).

RESULTS AND DISCUSSION

Sample Profile

Table 1 describes the demographic characteristics. Descriptive information showed that 41.7% (n = 58) were male and 58.3 % (n = 81) were female. The average age was 86.3 years old, and more than half (59.1%) of respondents were above 86 years old (n = 52). Caucasian Americans accounted for 95.5% of the respondents (n = 122). Regarding education levels, about half (50.8%) of respondents had at least a bachelor degree (n = 68).

Table 1
Demographic Profile of the Sample (N = 144)

Characteristics	Category	<i>N</i> ^a	%
Gender	Male	58	41.7
	Female	81	58.3
Age	Under 80	20	19.0
	81-85	23	21.9
	86-90	32	30.5
	91-95	19	18.1
	Above 96	11	10.5
Period of Dwelling	Under 2 years	40	33.9
	2-5 years	27	22.9
	Above 5 years	51	43.2
Education	High school or less	5	3.7
	High school graduate	19	14.2
	Some college	32	13.9
	Associates degree	10	7.5
	Bachelors degree	34	25.4
	Post college	34	25.4
Ethnicity	White	122	95.5
	Other	11	4.5

Note: ^a Sample size was decrease due to missing data

Confirmatory Factor Analysis (CFA)

A CFA was conducted to assess the overall model fit of the proposed measurement model. Table 2 presents the details of the reliabilities of dimensions and the properties of the measurements. The level of the internal consistency in each dimension was acceptable with

Cronbach's alpha values ranging from .85 to .96 (Nunnally, 1978). The results above indicated that multiple measurement items were highly reliable for measuring each construct. Convergent validity was assessed with factor loadings. All confirmatory factor loadings exceeded .74 and were significant at the alpha level .01.

Table 2
Reliabilities and Confirmatory Factor Analysis Properties

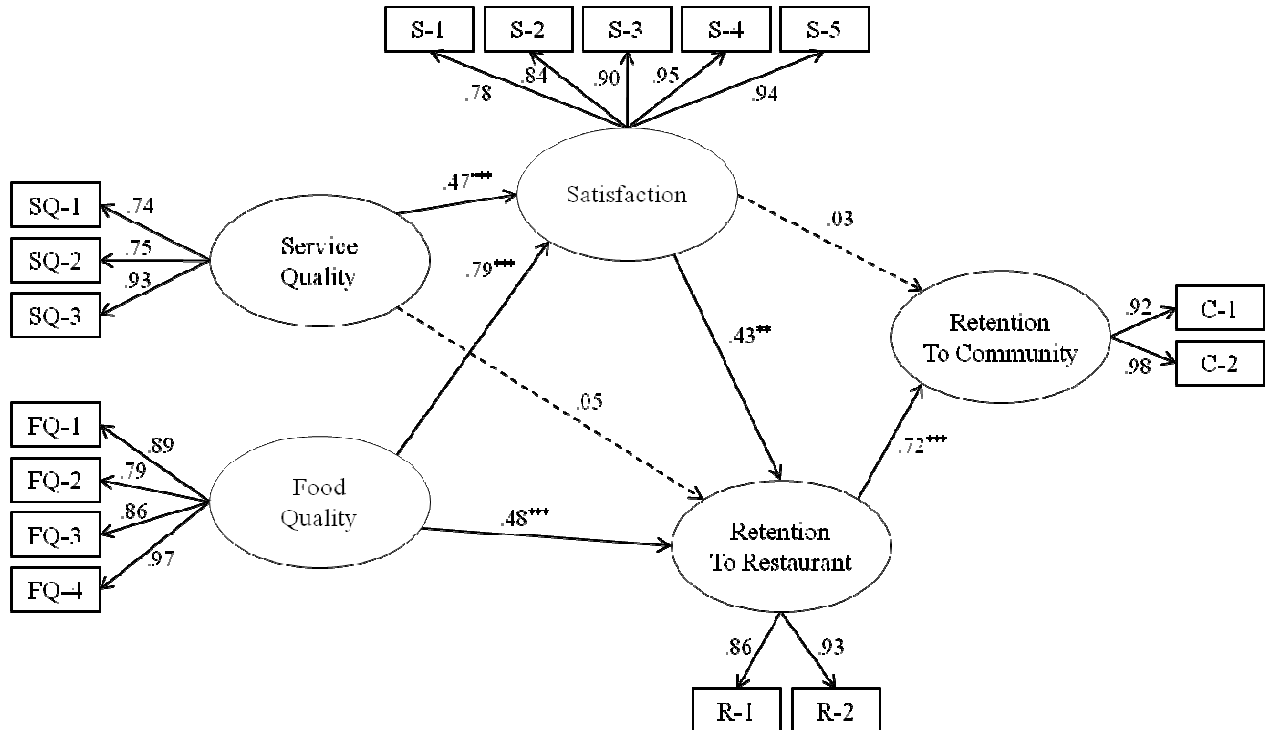
Construct	Standardized factor loading	Cronbach's alpha
Service quality		.85
<i>SQ-1</i>	.74	
<i>SQ-2</i>	.75	
<i>SQ-3</i>	.93	
Food quality		.91
<i>FQ-1</i>	.89	
<i>FQ-2</i>	.79	
<i>FQ-3</i>	.86	
<i>FQ-4</i>	.97	
Satisfaction		.96
<i>S-1</i>	.78	
<i>S-2</i>	.84	
<i>S-3</i>	.90	
<i>S-4</i>	.95	
<i>S-5</i>	.94	
Retention to restaurant		.91
<i>R-1</i>	.86	
<i>R-2</i>	.93	
Retention to community		.96
<i>C-1</i>	.92	
<i>C-2</i>	.98	

Results of Structural Equation Modeling

After validating the measurement model, a structural equation modeling was conducted to validate the proposed model and to test the hypotheses. The results of the proposed model are summarized in Figure 2, and the goodness-of-fit statistics of the proposed model showed that the model reasonably fits the data (chi-square₍₉₇₎ = 522.66, $p < .001$, chi-square/df = 5.39, NFI = .83, TLI = .82, CFI = .86, RMSEA = .17).

Figure 2

Structural Results of the Proposed Model



Note: ** $p < .01$, *** $p < .001$. Solid arrow = statistically significant, Dashed arrow = statistically not significant. Model fit indexes: chi-square₍₉₇₎ = 522.66, $p < .001$, chi-square/df = 5.39, Normed Fit Index (NFI) = .83, Tucker Lewis Index (TLI) = .82, Comparative Fit Index (CFI) = .86, Root Mean Square Error of Approximation (RMSEA) = .17.

Table 3 shows the results of the test hypotheses. The hypothesized relationship between service quality and residents' satisfaction (hypothesis 1a) was supported by the corresponding estimate of .47 ($p < .001$), indicating that service quality positively influences residents' satisfaction. The relationship between food quality and residents' satisfaction (hypothesis 1b) was also supported by the corresponding estimate of .79 ($p < .001$), showing that food quality positively influences residents' satisfaction. The relationships between food quality and retention to restaurant as well as between residents' satisfaction and retention to restaurant were also supported by estimates of .48 ($p < .001$) and .43 ($p < .01$), respectively. Therefore, the results indicated that food quality and residents' satisfaction positively influence retention to restaurant. However, the hypothesized relationships between service quality and retention to restaurant as well as satisfaction and retention to community were not supported because of not significant estimates of .05 and .03, respectively. Last, the hypothesized relationship between retention to restaurant and retention to community was supported by the corresponding estimate of .72 ($p < .001$), showing that retention to restaurant positively influences retention to community.

Table 3
Structural Paramet Estimates

Hypothesized path	Standardized path coefficients	Result
H1a: Service quality → Satisfaction	.47***	Supported
H1b: Food quality → Satisfaction	.79***	Supported
H2a: Service quality → Retention to restaurant	.05	Not supported
H2b: Food quality → Retention to restaurant	.48***	Supported
H3: Satisfaction → Retention to restaurant	.43**	Supported
H4: Satisfaction → Retention to community	.03	Not supported
H5: Retention to restaurant → Retention to community	.72***	Supported

Note: ** $p < .01$, *** $p < .001$

CONCLUSION AND IMPLICATION

The current study was undertaken to explore the relationships among residents' perceived service and food quality, residents' satisfaction, and behavioral intentions. This study found that both service and food quality significantly influenced residents' satisfaction with estimates .47 and .79 at .001 alpha level, respectively. The findings are consistent with those of past research (Huang & Shanklin, 2008; Ha & Jang, 2010b; Namkung & Jang, 2007). However, unlike the previous study, the result indicated that service quality did not positively influence retention to restaurant with corresponding estimate of .05. This implies that service quality impacts on retention to restaurant by mediating residents' satisfaction. Also, more satisfied residents are more likely to retain to the restaurant; furthermore, those residents simultaneously tend to show more positive behavioral intention to the community. This shows the positive mediating effect of retention to restaurant between residents' satisfaction and retention to community.

Managerial Implications

This study stressed the importance of service and food quality. This finding indicated that senior retirement community operators should recognize the importance of dining service and food quality in improving their residents' satisfaction. More specifically, given the SEM results, food quality impacted on residents' satisfaction more than service quality did based on path coefficients of .79 and .47, respectively. Also, the operators should realize that residents who show positive behavioral intention to the restaurant tend to stay longer at the community.

Limitations

Despite its implications, this study also has some limitations. The data were collected at only one senior retirement community, and the sample size was relatively small; therefore, generalizing the results to other communities may not be possible. If this study expand the population to other regions, the findings will be more reliable and concrete.

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