

The Six Dimensions of Resident Satisfaction and Their Impact on Word-of-Mouth (WOM) Intention in a Continuing Care Retirement Community (CCRC): A Case Study

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Abstract

Purpose - This study aims to assess six aspects of resident satisfaction (satisfaction with room, home, social interaction, meals service, staff care, and resident involvement) and to identify the most influential aspect of satisfaction upon word-of-mouth (WOM) intention in a continuing care retirement community (CCRC).

Design/methodology/approach - A total of 293 paper survey questionnaires with a cover letter and postage paid envelopes were mailed to the CCRC residents. To test reliability and validity of the multidimensional resident satisfaction, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used. Then, the structural equation modeling technique (SEM) was applied to test causal relationship between resident satisfaction and WOM intention. Multiple regression was used to identify the most influential aspect of resident satisfaction on WOM intention in the CCRC.

Findings - The results of EFA and CFA on the 157 responses received out of the total 293 surveys indicated that six dimensions of resident satisfaction were statistically distinct. Among the six dimensions, satisfaction with resident involvement, social interaction, and staff care significantly influenced their WOM intention. Furthermore, the most influential aspect of satisfaction upon WOM intention was resident involvement.

Research implications or Originality - This study empirically tested the six dimensions of CCRC resident satisfaction, and identified resident involvement as the most influential factor upon WOM intention in a CCRC where WOM intentions plays a crucial role during the selection process of prospective residents.

Keywords: Third Place, Resident Satisfaction, Word-of-Mouth (WOM), Continuing Care Retirement Community (CCRC)

JEL Classifications: L8, M3

I. Introduction

Due to the aging baby-boomer generation and increasing average life expectancy, more than 73 million people are projected to be 65 or older by 2030. Of those, nearly 70 percent of them will need some form of long-term care including appropriate housing types and supportive care services in senior health care communities (JCHS, 2014). One particular type of senior health care housing is Continuing Care Retirement Community (CCRC). CCRCs are “part independent living, part assisted living (AL) and part skilled nursing home. They offer a tiered

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approach to the aging process by accommodating residents' changing needs. Upon entering, healthy adults can reside independently in single-family homes, apartments or condominiums. When assistance with everyday activities becomes necessary, they can move into AL or nursing care facilities. These communities present older adults with an option to live in one location for the duration of their life, with an enhanced security of knowing their future care is already figured out." (AARP, 2020).

CCRCs provide various types of services including but not limited to onsite pharmacy, insurance billing, bank, swimming pool, health/wellness program, fitness area, beauty or barber shop, onsite nursing/physicians, physical therapy, water aerobics, art classes, meal service, transportation, recreational therapy, onsite counseling, and home health care (Krout, Oggins, and Holmes, 2000). Through the wide range of services, CCRCs are embracing physical, medical, and mental health care services in one community (Hwang, 2015). Residents casually join these activities/services in the community and spend their time with other residents.

Along with the benefits provided by long-term care communities such as CCRCs or AL which are listed above, moving to such communities could accompany different types of losses and separations, such as loss of independence, social losses including the loss of a spouse and longtime friends, and declining health and function (Mead, Eckert, Zimmerman and Schumacher, 2012; Perkins, Ball, Kemp and Hollingsworth, 2013). In addition, movings from independent living to AL or health center (nursing home) within a CCRC typically come together with loss of independence and lots of emotions. Thus social and emotional support through social interaction and companionship in these communities are important for residents' quality of life and well-being. Furthermore, since residents in these communities stay on a long-term basis and consider the place as a final residence, their living communities should mean a lot to residents at the emotional level.

In order to explore the meaning of places and the social supportive role of the places in consumers' lives, Rosenbaum (2006) introduced the relational theory of third places. In general, third places are defined as "public places that host the regular, voluntary, informal and happily anticipated gatherings of individuals beyond the realms of home and work" (Oldenburg, 1999, p. 16). For instance, consumers go to restaurants and coffee shops to eat food and drink coffee, and might occur social interactions with friends and/or employees there. They might enjoy the social interaction with them and share social and emotional support resources thereby revisiting them on a regular basis. These places are found in CCRCs and residents voluntarily go to these places based on their interests and needs. Therefore, studies examining issues surrounding third places within CCRCs in providing for social interaction and supports are crucial but currently lacking in the literature.

As a framework of understanding why and how third places are formed in consumers' psychology, the relational theory of third place (Rosenbaum, 2006) proposed examining the issues as a chain of causal effects linking the following three concepts: (a) social and emotional needs of consumers as the starting point, (b) place meaning, i.e., service establishments satisfying the consumer needs, and (c) consumer loyalty resulting from consistent consumer satisfaction and consumers' word of mouth.

A recent study (Lee and Severt, 2016) was the first effort at understanding why and how a CCRC becomes a meaningful third-place for senior residents based on the relational third-place theory (Rosenbaum, 2006). Results of the study indicated that resident needs (tangibles, instrumental, and emotionally supportive resources) positively influenced place meaning, and in turn place meaning positively impacted resident loyalty outcomes. The construct

of place meaning consisting of trust, comfort, safety, and the ability to make friends in a CCRC was proposed and empirically tested. Loyalty outcomes in their study included overall satisfaction and behavioral intention (word-of-mouth, WOM).

The current study aims to build on the study (Lee and Severt, 2016) and Rosenbaum's theoretical framework by examining the Loyalty outcomes in further details through quantitative study of the causal relationship linking various aspects of resident satisfaction to behavioral intention (WOM). Some of the key questions involved in understanding the relationship between resident satisfaction and WOM would be:

What are the primary components of service satisfaction experienced by CCRC residents?

What are quantitative rankings of the components of satisfaction based on their impact on positive WOM?

Specifically, this study aims to assess six aspects of resident satisfaction, i.e., satisfaction with room, home, social interaction, meals service, staff care, and resident involvement, as suggested in the study conducted by Chou, Boldy and Lee (2001) and to identify the most influential part of satisfaction upon WOM intention. Although causal relationship between a high level of overall satisfaction and positive WOM may seem intuitively clear for any service industry, answers to the question of "what is the most influential aspect of customer satisfaction on WOM intentions?" are expected to be industry-specific and currently unavailable in the literature for CCRCs. Thus, this study will contribute to understanding specific aspects of residents' satisfaction and measuring the impact of their satisfaction on their WOM intention, which is expected to provide valuable insights in not only understanding the nature of resident satisfaction but also with evaluating and forming managerial strategies with the goal of differentiating the customer appeal of a CCRC and optimal investment of resource for improving customer loyalty as well. A better quality of service in these places will enhance the level of satisfaction of residents which will in turn lead to WOM advertising to others who may have family members, friends or who are themselves potential residents of such communities.

For these aims, the section II of this paper elaborates on the theoretical background introduced earlier, i.e., the relational theory of third places and how that construct applies to CCRCs. The details of the resident survey and analysis methods are presented in Section III. The results of CFA and Multiple regression are discussed next. The study concludes with managerial and theoretical implications as well as limitations and recommendations for future studies.

II. Theoretical Background

1. The Relational Theory of Third Places

The meanings of certain business establishments (places) can be transformed "from a place of consumption to a place of significance" (Rosenbaum, 2006). For instance, consumers purchase products and/or services and spend their time enjoying social interaction with friends and/or employees at public places outside the home and workplaces, such as coffee shops, cafés, restaurants, bars, pubs, taverns, community centers, churches, parks, and outdoor recreation spots (Rosenbaum, 2006). These places are known as third places. In CCRCs, residents spend their time and enjoy social activities with other residents and employees while eating meals in a dining room, playing games in a lounge, attending classes/exercises provided by the CCRC. In other words, there are many third places in the CCRC and senior residents have

been spending their most time with other residents and caregivers at those places (Lee and Severt, 2016).

According to the relational third-place theory framework (Rosenbaum, 2006), older consumers develop meanings to a particular place based on their ability to satisfy consumption (i.e. food, prices, ambient conditions, layout of the place), social and emotional needs through companionship and emotional support in the particular place. In Rosenbaum's proposition, restaurants are not simply a place for eating food, but rather more of a place of obtaining companionship and emotional support. More specifically, for each individual, deeper meanings of the place can be cultivated, and they can be segmented into place-as-practical, place-as-gathering, or place-as-home. The perceived meanings of the place influence customers' loyalty to the place (Rosenbaum, 2006; Rosenbaum et al., 2007).

2. Resident Needs and Place Meaning in a CCRC

The elderly can be facing loneliness socially and experience emotional loneliness resulting from loss of a family member, a family unit, or a divorce. This can also be brought about by physical illness (such as chronic illness) which requires much tenacity under bleak circumstances (Rosenbaum et al., 2007). Other additional causes of loneliness can be diminished social group due to the death or increased frailty of friends and loved ones. Others may encounter loneliness due to retirement from work and thus an unexpected reduction in social support system (Rosenbaum, 2006). The deficits that are created in social wants are theorized to be fulfilled by third place relationships, be it a trip to the same gas station multiple times a week or dinner out at the same local restaurant at the same time each week. These third places are consciously or subconsciously sought out. Most importantly, seniors that find this third place or support structure to fill the void of a support gap have been shown to have greater health and longevity (Giles et al., 2005).

Within CCRCs and AL, key relationship barriers might be stigma associated with disability and/or physical and mental health decline especially relating to cognitive impairment (Dobbs et al, 2008; Perkins, Ball, Kemp and Hollingsworth, 2013). In addition, fears about moving from independent living to AL, and AL to a nursing home or place for dementia contribute to the stigma associated with decline and functional impairment in CCRCs (Perkins et al., 2012; Perkins, Ball, Kemp and Hollingsworth, 2013; Shippee, 2009). Due to enhanced vulnerability arising from increasingly compromised health, loss of freedom and, loneliness, the residents' need for social and emotional support within the CCRCs are particularly significant, and the roles of the third places within CCRCs in providing for these needs are expected to be crucial. In this way, third places have converged into one place and is likely the only place that most seniors in these communities can get their needs met.

Residents decide to stay in a CCRC in order to utilize various types of services at one place for their convenience and to obtain assistance for their daily activities. Physical environments such as physical facilities, updated equipment, appearance of personnel, and cleanliness are fundamental components. These items contribute to the notion of place-as-practical. Residents socialize with other residents during meal times and during daily activities such as game time, exercise, shopping, religious activities etc. There are also clubs and meetings based on their personal interests. They can establish friendship and companionship through these activities. In this way, a CCRC provides third places of gathering. In general, residents consider CCRCs as their final home. Feelings of comfort, safety, sense of community, and personal

acknowledgement from others at a CCRC are important. In this way, the place as "home-meaning" rings true with CCRCs (Lee and Severt, 2016).

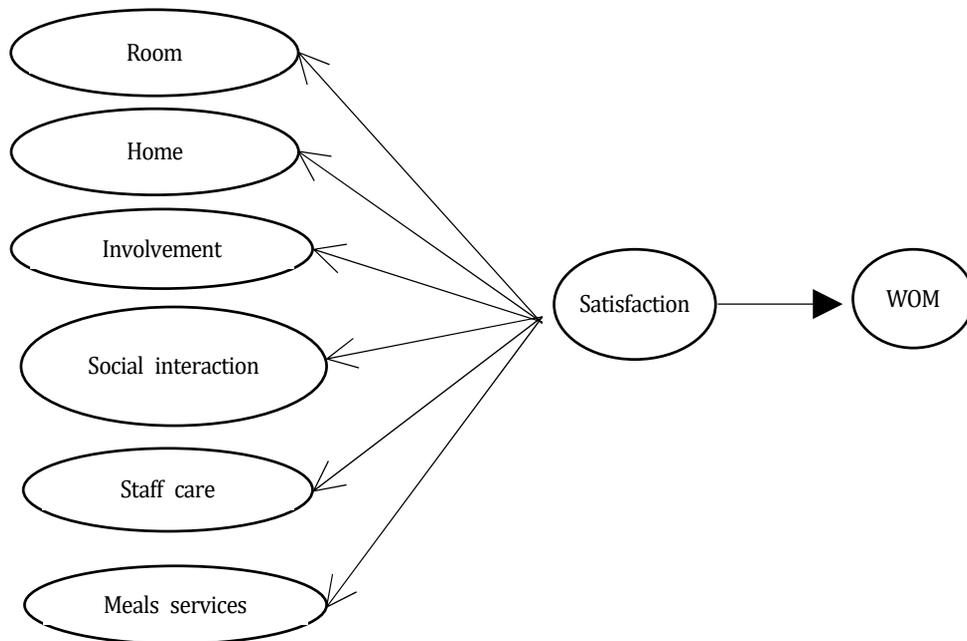
3. Loyalty Outcomes in a CCRC

If residents' cumulative experience with the overall service quality greatly exceeds their expectation in a CCRC, they would be highly satisfied, wouldn't look for another CCRC, and more likely to share their experience with others (de Matos and Rossi, 2008). Nowadays, users of services and products become opinion leaders (Stein and Ramaseshan, 2015) due to the influence of social networking technologies. Especially, satisfied residents in a CCRC typically stay on a long-term basis in their community and consider the CCRC as their final residence. Therefore, high levels of satisfaction and WOM from current residents are trustworthy information for potential residents and their families who influence the final decisions. Thus, examining the relationship between residents' satisfaction and WOM intention in a CCRC is crucial.

Accordingly, this current study aims to investigate quantitatively the causal relationship between various aspects of resident satisfaction and WOM intentions. Particularly, this study measures multidimensional nature of resident satisfaction instead of unidimensional measure (a global overall satisfaction). CCRCs provide different types of services, such as health care, food services, lodging, daily activities, educational services etc. Thus, the overall satisfaction measure is not enough to cover specific service components in CCRCs. Chou, Boldy and Lee (2001) developed reliable and valid resident satisfaction items from a sample of 1,146 residents in 70 residential aged care facilities in Australia. The multidimensional construct of resident satisfaction include six factors: room, home, social interaction, meals services, staff care, and involvement (Fig. 1). More specifically, the aspect of *room* satisfaction included room size, amount of storage space, and bathroom facilities. *Home* satisfaction covered the community's design for getting around, the lounge area, the dining area, and the outside areas. *Meals service* included the variety of food, quantity, temperature of food, and meal times. *Social interaction* was based on having enough things to do, social life in the community, and being able to keep in touch with life outside. *Staff care* satisfaction consisted of staff attitude toward residents, staff's respect for residents' privacy, and the promptness with which staff responds to residents' calls for help. *Resident involvement* included keeping the residents informed about aspects that may affect them, providing them enough opportunities to convey their views to the management, and feeling comfortable about approaching the staff to discuss a concern (Chou, Boldy and Lee, 2001).

Satisfaction with room, home, and meals services might be important when residents search for a community. However, as CCRC residents spend more time in the community and build relationships with other residents and staff members, residents' need are expected to shift toward the social and emotional support. In other words, as CCRC residents get accustomed to the design and ambience in the community with time through the habituation effects, social interaction and engagement play a critical role in a CCRC (Lee and Severt, 2016). Therefore, satisfaction with social interaction, staff care, and resident involvement is likely to be more important than satisfaction with room, home, and meals services thereby more significantly impacting positive WOM intention in a CCRC. Thus, the objectives of this study are to assess six aspects (room, home, social interaction, meals services, staff care, and involvement) of resident satisfaction and to identify the most influential aspect of satisfaction on WOM intention in a CCRC.

Fig. 1. The Relationship between Six Aspects of Resident Satisfaction and WOM Intention in a CCRC



III. Methodology

The setting for this research was a CCRC located in the southeastern portion of the United States. This CCRC is non-profit and is affiliated with a religious organization. The CCRC serves more than 300 residents in four different types of communities including Residential (independent living), Apartment (independent living), Assisted living (AL), and Health Center (Nursing Home). The researchers received 293 mailing addresses of the CCRC residents from the owner based on the selection criteria which included confirmation that selected participants had sufficient cognitive competence, as well as a minimum level of health and energy for participation in the survey.

A focus group consisting of six CCRC experts and two Hospitality Services department faculty members reviewed the draft of the survey questionnaire. Based on their suggestions, minor revisions were made including creation of a survey with a bigger font size and the alteration of certain words in order to improve the face validity of the survey instrument.

Prior to distributing the surveys, the instrument and distribution procedures were approved by the Institutional Review Board (IRB) of the Committee on the Use of Human Research Subjects. Residents were informed about the project by the CCRC manager or caregivers. A total of 293 paper survey questionnaires with a cover letter and postage paid envelopes were mailed to the CCRC residents. Resident participation was voluntary with the assurance that the individual results of the survey would be kept anonymous. Residents had to be over 55 years old and could send back their completed surveys to the researchers directly or could

submit the surveys in the form of a sealed envelope in a locked box located in front of the dining hall corridor. The locked box was chosen due to its easy access to all the residents. Researchers were the only ones with access to the locked box. Two weeks later, the researchers went to the CCRC and collected the surveys.

The survey was designed to measure (1) how satisfied they were with the six aspects of their experience in the CCRC, (2) the degree of willingness of the residents to provide WOM for the CCRC, using a seven-point Likert scale anchored by 1 and 7 (1 = poor to 7 = excellent and 1 = not satisfied to 7 = very satisfied).

In order to measure the construct of multidimensional resident satisfaction, satisfaction measurement instrument included satisfaction with room, home, social interaction, meals service, staff care, and involvement. From these six first-order factors, the level of multidimensional resident satisfaction was derived as a second-order latent variable. The specific measurement items used in this study for the six dimensions of satisfaction are presented in (Table 1) which consists of 20 items divided into the six dimensions as follows: satisfaction with room (three items), home (four items), social interaction (three items), meals services (four items), staff care (three items), and resident involvement (three items). The measurement items were directly adopted from methods developed in previous studies (Chou, Boldy and Lee, 2001/2003) except one item in staff care, "How would you rate the help you received from the community at the time you moved in?". More than half of the residents did not respond to this question because they have been there for a while and couldn't remember at the time of the survey.

In order to measure WOM intentions of residents, the survey included three measurement items (Table 2) which were adapted from previous studies (Zeithaml, Berry and Parasuraman, 1996). In order to test reliability and validity of the multidimensional resident satisfaction, exploratory factor analysis (EFA) was first used. The authors of the original study behind the measurement instrument for the six aspects of resident satisfaction mentioned that these items were developed based on the views of the residents in Australia and recommended to assess whether the instrument included all relevant aspects for another country (Chou, Boldy and Lee, 2001). EFA was performed based on the principal component extraction method and varimax rotation method with the statistical software package, SPSS 23 (SPSS, Inc., 2016).

A second order latent variable representing the multidimensional resident satisfaction was derived from the six aspects of satisfaction through the confirmatory factor analysis (CFA). Then, the structural equation modeling techniques (SEM) based on Anderson and Gerbing's (1988) two-step approach was applied to test causal relationship between resident satisfaction and WOM intention, using SPSS 23 and Amos 23. The following goodness of fit criteria were used to assess model adequacy: Normed Chi-square (χ^2/df) < 3, Comparative Fit Index (CFI) > .90, Tucker Lewis Index (TLI) > .90, Root Mean Square Error of Approximation (RMSEA) < .80 (Hair et al., 2006). Finally, multiple regression was used in order to examine the most influential aspect of resident satisfaction on WOM intention in the CCRC.

IV. Results

A total of 293 paper survey questionnaires were distributed to CCRC residents. Of the 293 surveys, 157 responses were received, yielding the survey response rate of 53.6%. The majority of the respondents (66%) were female with ages ranging from 61 years to 106 years. The mean age was 82.8 years. About 98% of the respondents were white. About 82% of respondents stay in the Residential and Apartment classification, where independent seniors live. Most of

the respondents (90%) had lived at the CCRC for more than one year.

1. Reliability and Validity Analysis

From the results of EFA, six factors (room, home, social interaction, meals service, staff care, resident involvement) were extracted with eigenvalues greater than 1, and accounting for 75.06% of the total item variance indicating that the survey instrument included the six aspects of resident satisfaction in the CCRC. (Table 1) shows factor structure of resident satisfaction using EFA. (Tables 2 and 3) show the reliabilities and the validities for latent variables, six aspects of resident satisfaction and WOM intention. The Cronbach coefficient alpha for each construct ranged from .813 to .963, and standardized factor loadings ranged from .624 to .979, all above the suggested acceptable values (Nunnally, 1978). (Table 2) shows the correlation estimates among the constructs and squared correlations for each construct. The average variance extracted (AVE) estimates ranged from .533 to .900 which are above .50 and are exceeding squared correlation between the constructs. All values of the interconstruct squared correlation estimates were less than the AVE for the corresponding constructs; therefore, the constructs met discriminant validity (Hair et al., 2006). (Table 2) display the results from CFA. The values of the normed chi-square was 1.55, which is less than the cut-off point of 3; the CFI was .954, which is greater than the cut-off point of .9; the TLI was .942, which is greater than the cut-off point of 0.9; and the RMSEA was .060, which is less than the cut-off point of .8 indicating that this proposed structural model produced a good fit to the data. In other words, all constructs were statistically distinct, and all constructs captured different information, meeting the requirements for reliability and validity.

Table 1. Factor Structure of Resident Satisfaction – Exploratory Factor Analysis

Item	Room	Home	Social Interaction	Meals Services	Staff Care	Resident Involvement
Room size	.728					
Amount of storage space	.875					
Bathroom	.822					
Its design for being able to get around easily		.557				
The lounge area		.694				
The dining room		.761				
The outside areas		.782				
Having enough things to do			.777			
Social life in this community			.808			
Being able to keep in touch with life outside			.662			
Variety of food				.771		
Amount of food				.766		
Temperature of food				.841		
Meal times				.691		
Staff attitude toward residents					.830	
Their respect for residents' privacy					.760	
The promptness with which they respond to residents' calls for help					.804	
Keep residents informed enough about things that may affect them						.809
Have enough opportunities to put residents views to the management						.853
Feel comfortable about approaching staff to discuss a concern						.747

Note, Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization. Pattern coefficients under .50 are not shown. The Kaiser-Meyer-Olkin measure of sampling adequacy is .86. The Bartlett test of sphericity ($\chi^2=1820$, $df=190$, $N=157$, $p=.00$) is significant.

Table 2. Measurement Model Results for the Latent Constructs – Confirmatory Factor Analysis

Construct and scale items	Mean (SD)	Factor loading	CR	AVE
<u>Resident satisfaction</u>				
<i>Room ($\alpha=.816$)</i>				
R1: Room size	6.2 (1.0)	.734	.888	.599
R2: Amount of storage space	5.7 (1.4)	.798		
R3: Bathroom	6.1 (1.2)	.789		
<i>Home ($\alpha=.817$)</i>				
H1: Its design for being able to get around easily	5.7 (1.2)	.637	.882	.533
H2: The lounge area	6.1 (0.8)	.887		
H3: The dining room	5.9 (1.1)	.740		
H4: The outside areas	6.1 (1.0)	.624		
<i>Social interaction ($\alpha=.878$)</i>				
S1: Having enough things to do	6.1 (0.9)	.879	.932	.714
S2: Social life in this community	6.0 (1.0)	.832		
S3: Being able to keep in touch with life outside	6.2 (0.8)	.823		
<i>Meals services ($\alpha=.857$)</i>				
M1: Variety of food	5.6 (1.3)	.747	.913	.607
M2: Amount of food	6.3 (1.0)	.844		
M3: Temperature of food	5.9 (1.2)	.875		
M4: Meal times	5.9 (1.2)	.625		
<i>Staff care ($\alpha=.848$)</i>				
C1: Staff attitude toward residents	6.4 (0.8)	.930	.913	.672
C2: Their respect for residents' privacy	6.4 (0.8)	.839		
C3: The promptness with which they respond to residents' calls for help	6.2 (1.0)	.667		
<i>Involvement ($\alpha=.813$)</i>				
I1: Keep residents informed enough about things that may affect them	5.7 (1.2)	.842	.900	.628
I2: Have enough opportunities to put residents views to the management	5.5 (1.7)	.806		
I3: Feel comfortable about approaching staff to discuss a concern	5.9 (1.4)	.724		
<u>WOM ($\alpha=.963$)</u>				
W1: I will recommend this community to other people.	6.4 (0.9)	.962	.981	.900
W2: I will encourage other people to choose this community.	6.4 (1.0)	.979		
W3: I will say positive things about this community to other people.	6.4 (0.9)	.903		

Note, N=157, Measurement items are scored on a 7-point Likert scale (1 = poor to 7 = excellent; 1 = strongly disagree to 7 = strongly agree). CR: Composite Reliabilities; AVE: Average Variance Extracted. Overall fit measures: $\chi^2/df = 1.555$, CFI=.954, TLI=.942, RMSEA=.060, CFI= Comparative Fit Index; TLI= Tucker Lewis Index; RMSEA= Root Mean Square Error of Approximation.

Table 3. Correlations and Squared Correlations between Constructs

Construct	Cronbach's α	1	2	3	4	5	6	7
1. Room	.816	1.00	<i>.307*</i>	<i>.229*</i>	<i>.110*</i>	<i>.236*</i>	<i>.082*</i>	<i>.089*</i>
2. Home	.817	.554	1.00	<i>.444*</i>	<i>.310*</i>	<i>.300*</i>	<i>.162*</i>	<i>.162*</i>
3. Social interaction	.878	.478	.666	1.00	<i>.371*</i>	<i>.282*</i>	<i>.329*</i>	<i>.343*</i>
4. Meals services	.857	.332	.557	.609	1.00	<i>.306*</i>	<i>.169*</i>	<i>.139*</i>
5. Staff care	.848	.486	.548	.531	.553	1.00	<i>.183*</i>	<i>.274*</i>
6. Resident involvement	.813	.288	.402	.574	.411	.428	1.00	<i>.419*</i>
7. WOM	.963	.299	.403	.586	.373	.523	.647	1.00

Note, α = Cronbach coefficient alpha, Values below the diagonal are correlation estimates between constructs.

*Values shown in italics above the diagonal are squared correlations.

2. Findings

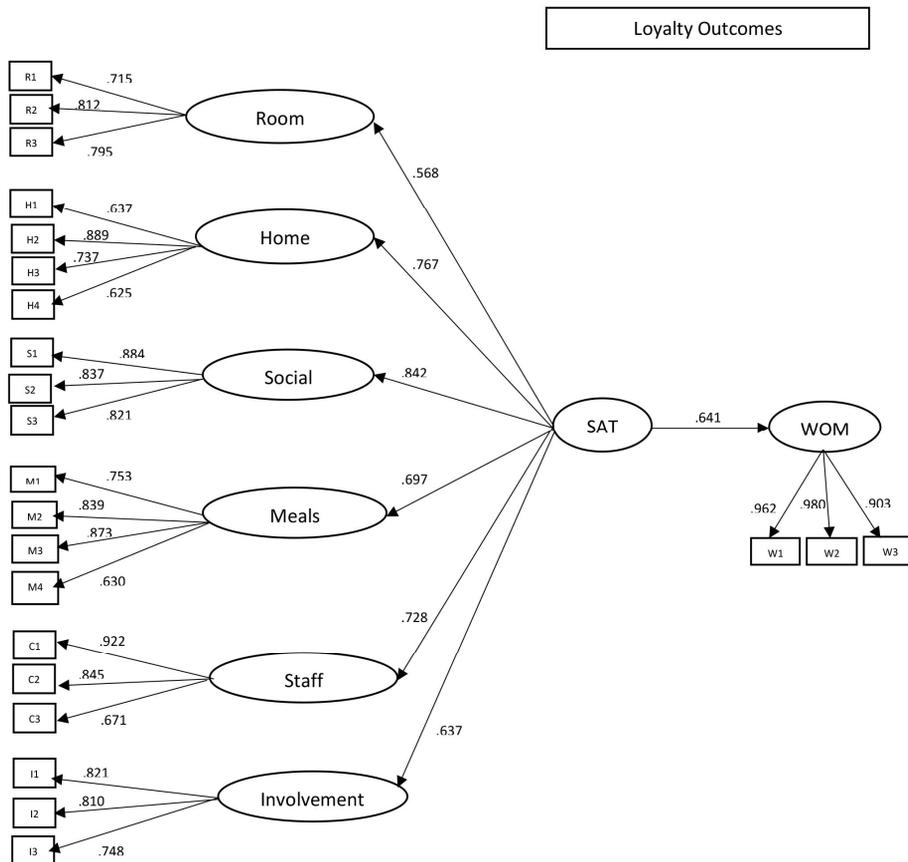
The standardized path coefficients with p -value indicate the direction and magnitude of the significant impact of each path in the estimated model. The results in (Table 4) and (Fig. 2) revealed the hypothesized path between multidimensional resident satisfaction and WOM intention (standardized path coefficient of .641 with p -value < .000) were significantly and positively supported. The values of the normed chi-square was 1.695, which is less than the cut-off point of 3; the CFI was .938, which is greater than the cut-off point of .9; the TLI was .928, which is greater than the cut-off point of .9; and the RMSEA was .067, which is less than the cut-off point of .08 indicating that the multidimensional resident satisfaction using a second-order latent variable significantly influenced their WOM intention.

Table 4. Structural Parameter Estimates

Hypothesized path	Standardized path coefficients	t-value	p -value	Results
SAT \rightarrow WOM	.641	4.991	<.000	Supported

Note, SAT=Multidimensional resident satisfaction (second-order latent variable) including room, home, social interaction, meals service, staff care, and resident involvement; WOM=Word-of-mouth; Overall fit measures: $\chi^2/df = 1.695$, CFI=.938, TLI=.928, RMSEA=.067, CFI= Comparative Fit Index; TLI= Tucker Lewis Index; RMSEA= Root Mean Square Error of Approximation.

Fig. 2. Structural Equation Model with Parameter Estimates



$$\text{WOM intention} = \alpha + .276 \times \text{Involvement}^* + .270 \times \text{Social}^* + .233 \times \text{Staff}^* + .023 \times \text{Home} - .022 \times \text{Room} + .019 \times \text{Meals} + \varepsilon$$

(Note, * $p < .003$; $N = 157$; $R^2 = .408$; F -value: 17.235, p -value $< .000$; Where, Involvement: satisfaction with resident involvement; Social: satisfaction with social interaction; Staff: satisfaction with staff care; Home: satisfaction with home; Room: satisfaction with room; Meals: satisfaction with meals services; ε : error)

In order to identify the most influential aspect of resident satisfaction on WOM intention in the CCRC, regression was used. Prior to regression analysis, the variance inflation factor (VIF) test was used to check multicollinearity. The VIF ranged from 1.338 to 1.941, which is less than the cut-off point of 2.

The six different aspects of satisfaction included: satisfaction with room, home, social interaction, meals services, staff care, and resident involvement in the CCRC. (Table 2) shows the six aspects of resident satisfaction and description of measure with mean and standard deviation. From the results of regression (Table 5), the following linear model relating the six aspects of satisfaction to WOM intention was obtained:

Table 5. Influence of Six Aspects of Satisfaction on WOM Intention

Aspects of satisfaction	Mean (SD)	Standardized coefficients (β)	t-value	Sig.	VIF
Involvement	5.69 (1.23)	.276	3.674	.000	1.427
Social interaction	6.12 (0.82)	.270	3.085	.002	1.941
Staff care	6.35 (0.76)	.233	3.016	.003	1.516
Home	5.96 (0.82)	.023	.269	.788	1.812
Room	6.01 (1.03)	-.022	-.309	.758	1.338
Meals services	5.91 (0.99)	.019	.237	.813	1.605

Note, Dependent variable: WOM intention; R2: .408; Durbin-Watson: 1.808; F-value: 17.235, p-value<.000; Staff care: satisfaction with staff care; Involvement: satisfaction with resident involvement; Social interaction: satisfaction with social interaction; Home: satisfaction with home; Room: satisfaction with room; Meals services: satisfaction with meals services; Measurement items are scored on a 7-point Likert scale (1 = not satisfied to 7 = very satisfied).

Overall, this model with the six aspects of residents' satisfaction explained 40.8% of the variance in WOM intention in the CCRC. Satisfaction with resident involvement ($\beta = .276$, $p < .000$) was the strongest predictor of WOM intention followed by satisfaction with social interaction ($\beta = .270$, $p < .002$) and staff care ($\beta = .233$, $p < .003$). Satisfaction with meals service ($\beta = .019$, $p=.813$), home ($\beta = .023$, $p=.788$), and room ($\beta = -.022$, $p=.758$) did not significantly influence WOM intention in the CCRC.

V. Conclusion

This study explored the six distinct aspects of resident satisfaction in a CCRC and identified the most influential aspect of resident satisfaction on WOM intention in a CCRC. The six different aspects of satisfaction included: satisfaction with room, home, social interaction, meals services, staff care, and resident involvement. The most influential aspect of resident satisfaction on WOM intention in a CCRC was resident involvement. The statistically significant predictors of WOM intention are satisfaction with resident involvement, social interaction, and staff care. Satisfaction with facilities (room and home) and meals services were not significantly linked to WOM intention. These results underline the importance of the psychological and interpersonal, i.e., intangible aspects of service quality. It can be inferred that, in the case of a CCRC, these intangible or "soft" attributes contribute transforming a facility/house toward a community/home. Though these attributes are important in all service industries, they are likely to present a particular significance toward consumers with vulnerability such as long-term care residents.

These findings suggest that residents in the CCRC may seek and find compensation for their loss of social and emotional support through interpersonal components of their lives in the CCRCs. Thus, a high level of satisfaction with resident involvement, social interaction, and staff care in the CCRC would lead to strong formation of loyalty outcomes, i.e., strong positive WOM intention. Physical facilities and meals services are a fundamental prerequisite in a CCRC. On top of the tangible support, the interpersonal and social support resources from the CCRC would be vital for happiness and satisfaction of long-term residents in a CCRC. Environments rich in these attributes diminish social and emotional loneliness felt by residents thereby helping them to live actively in their later lives. In contrast, environments depleted of such attributes may lead to depression and inactivity in later years.

1. Theoretical and managerial implications

This study tested multidimensional resident satisfaction and identified the most influential aspect of resident satisfaction on WOM intention in a CCRC. The results of this study suggests that social relationships and interpersonal components enhance the experiences of residents in a CCRC.

Management should strive to establish social engagement culture in a CCRC. This will aid in developing positive emotions, or affective attachment, needed in the CCRC. This further provides social and emotional supports through staff and other residents in a CCRC. Increased levels of social engagement through the social networks among the residents and staff in the CCRC will positively impact residents' health and longevity (Giles et al, 2005, Rosenbaum, 2006). In addition, this will increase the level of connectedness and involvement with the community which in turn the feeling of social isolation will be decreased.

Specifically, the study provided support indicating that the specific influence of six aspects of resident satisfaction including resident involvement, social interaction, and staff care on WOM intentions in the CCRC. Residents want to be connected with the community, co-residents, and outside of community as well. In addition, staff care consisting of staff attitude toward residents, respect for resident privacy, and prompt response to residents' calls for help is very important for WOM intention in the CCRC. These results underline the importance of the soft side of service quality and satisfaction, and thus should be emphasized during staff training in order to promote such atmosphere within the CCRC. Overall, such efforts would potentially lead to competitive advantages for communities that are able to optimize these behaviors.

Residents in CCRCs stay on a long-term basis thereby experiencing and requiring multiple types of care over time. Thus, the influence of WOM from highly satisfied long-term residents is critical to attract future residents. This is especially true as current residents refer their community to potential residents in their personal network thereby encouraging the community to be more friendly and homely. Thus, CCRCs need to provide various channels for current residents to share their experiences with others. In addition, this will increase consumer awareness about the CCRC and will impact future decision makers' purchase intentions.

Most importantly, CCRCs need to provide staff training programs that guide employees in both standard and customized care to each individual resident. This individualized care presents a sizable potential for care-giving to vulnerable clients. The subjective elements of satisfaction specifically related to human interactions including treatment of staff, social interaction and resident involvement were important to WOM intention. It is likely that these soft skills and programs should be designed into the experience of the CCRC residents and subsequently evaluated and continuously refined in order to optimize resident satisfaction and WOM communication. By showing how these attributes come into play in every day service situations within a CCRC, leaders can bring emphasis to these intangibles through training in a tangible way. Many such programs are nonexistent and definitely lacking in training in this vital, aspect of resident experience.

2. Limitations and recommendations for future studies

Although this study makes theoretical and empirical contributions, it is not without some limitations. This study was based on data collected from a single location of CCRC particularly

from CCRC resident respondents from the Residential and Apartment classification, where independent seniors live. Although residents from such classification comprise about 82% of the total residents in the CCRC studied, the results of this study may not be generalizable to the entire populations in a long-term care housing market, but may be more indicative of independent seniors in such environments. Certainly, the diminished health in less independent division of a CCRC may become barriers to data collection. Additionally, future studies may also attempt to test whether the same marketing model results hold across all segments of CCRCs from varying socioeconomic background.

Another opportunity for future studies comes from the fact that this study measured CCRC resident satisfaction at a single point in time. Considering the long-term nature of residents' life in CCRCs, longitudinal studies are recommended to examine how the resident needs, satisfaction and their impact on loyalty outcomes evolve over the long term as the CCRC residents transit through varying degrees of independence in their resident community.

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