

THE MEDIATING EFFECT OF PLACE ATTACHMENT ON THE RELATIONSHIP BETWEEN SENIOR CITIZEN ACTIVITY INVOLVEMENT AND ACTIVITY SATISFACTION - A CASE FROM THE PERSPECTIVE OF LEISURE MANAGEMENT

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ABSTRACT

At present, most countries in the world regard aging in place as the main goal of the elderly society. Meanwhile, senior citizens are encouraged to participate in community activities, and long-term care (LTC) resources are provided in the community. Previous studies have also mentioned that activity involvement and place attachment are more likely to affect activity satisfaction. Therefore, the purpose of this study is to use place attachment as the mediating variable to explore the influence of the relationship between activity involvement and activity satisfaction. By the survey method, a total of 400 questionnaires were sent out, and 387 valid questionnaires were recovered. The analysis results revealed that activity involvement and place attachment has a significant positive influence with activity satisfaction respectively. Place attachment only has a mediating effect on the relationship between the self-expression (dimension of activity involvement) and the psychological satisfaction (dimension of activity satisfaction). Relevant management suggestions are also put forward.

Keywords: senior citizens, activity involvement, place attachment, activity satisfaction

1. INTRODUCTION

According to the definition of the United Nations World Health Organization (WHO), when the proportion of the elderly population over 65 years old in the total population reaches 7%, it is an aging society, and when it reaches 14%, it is an aged society, and when it reaches 20%, it is called a super-aged society. According to statistics from the Ministry of the Interior, Taiwan had already surpassed the 7% standard of an aging society in 1993. At the end of March 2017, Taiwan broke the threshold of 14% [1]. The National Development Commission estimated that Taiwan will officially enter a "super-aging society" in 2026 and reach the 20% threshold [2]. Faced with the continuous increase in life expectancy, the United Nations has designated the "International Year of Older Persons" (IYOP) in 1999, and believes that strengthening education for the elderly people is one of the seven priorities. Therefore, the elderly receive education is treated as a basic human being. Education policy should provide feasible methods and resources considering the right to education of the elderly.

For the various problems and countermeasures of the aging society, governments and relevant units of various countries have actively put forward various measures and actions for the elderly. It contains more enthusiasm to promote the concept of active aging. Active means continuous participation in social, economic, cultural, spiritual, etc. activity. It is hoped that retired seniors and disabled seniors can continue to participate in family, peer and community activities, and still maintain an active daily life. It is important to create a friendly environment to Promote the quality of life and life dignity of the elderly.

Accordingly, how to increase the participation of community activity and its related concepts become a vital issue if the placemaking and aging in place are combined to consider for community development especially in rural areas. This study tried to use the ideas of leisure management and consumer behavior as the reference to investigate the drives of activity satisfaction. Consequently, the main purposes of this study are:

1. To understand the current self-evaluation level of activity involvement, place attachment and activity satisfaction in the case association.
2. To investigate the relationship between activity involvement, place attachment and activity satisfaction.
3. To examine the mediating effect of place attachment on the relationship between activity involvement and activity satisfaction.

2. LITERATURE REVIEW

Content of Activity Involvement, Place Attachment, Activity Satisfaction

In the studies of leisure management, the utility of the involvement has demonstrated for assisting leisure agencies' managerial and marketing decisions [3]. Meanwhile, it has been used as a tool for segmenting recreationists and tourists [4]. Involvement is usually defined as the degree to which a person devotes him or herself to an activity or associated product. In detail, activity involvement is the mental state of motivation, excitement, and emotional involvement in a specific activity, which is caused by a specific stimulus or situation. When the individual is highly involved in an activity, there is a certain interest in this activity. The activity may be important and highly relevant to the individual. That will encourage the individual to spend more time learning about the activity or continuing to participate in the activity. Basically, this idea has been borrowed from the literature of consumer behavior [5] [6]. With regard to the dimensions of activity involvement, McIntyre and Pigram [7] conceptualized activity involvement as consisting of attraction, self-expression, and centrality to lifestyle. The study of Kyle et al. [8] confirmed these three dimensions and this typology is widely used in other studies [9]. Attraction should be conceptualized as a combination of importance and pleasure. The centrality of a particular activity in terms of an individual's overall lifestyle. An activity may be considered central if other parts of an individual's life are arranged around that activity. Self-expression refers to self-representation, or the impression of oneself that individuals wish to express to others through their leisure participation.

Place attachment is the emotional bond between person and place. The various definitions of the concept are reviewed and synthesized into a three-dimensional, person-process-place organizing framework [10]. The person dimension to its individually or collectively determined meanings. The psychological dimension includes the affective, cognitive, and behavioral components of attachment. The place dimension emphasizes the place characteristics of attachment. It is usually discussed with leisure involvement in leisure management literature. Moore and Graefe [11] used the conceptual frameworks of activity specialisation and place attachment to study recreation trail users. They proposed that place identity with a particular setting was a function of how long a person had been associated with the site and how dependent they were on it. Their study might be the first combined use of involvement and place attachment in the leisure literature. With regard to the place attachment dimensions, Williams and Roggenbuck [12] developed three dimensions. Place identity represents the extent to which using the place is a central aspect of personal lives. Place dependence refers to that individuals are less willing to use another site for their particular activities. Place indifference indicates negative appraisals of the setting. However, much research has shown

the place identity and place dependence dimensions to be the most reliable across a variety of samples [11] [13].

Customer satisfaction is popular and common research construct in the literature of marketing management and consumer behavior. Therefore, the content of activity satisfaction here is quite similar to other marketing studies. Satisfaction is a positive reaction resulting from favorable appraisals of consumption experiences [14]. The perspective of appraisal can be identified from cognitive approach, affective approach or cognitive-affective perspective [15] [16] [17]. Regarding the dimensions of activity satisfaction, Beard and Ragheb [18] created and developed the Leisure Satisfaction Scale (LSS) to measure individual leisure satisfaction levels. Six subscales are included in LSS: psychological, educational, social, relaxation, physiological, and aesthetic satisfaction. In order to echo the cognitive and affective approaches, this study adjusted activity satisfaction into two subscales: activity satisfaction and psychological satisfaction. The former refers to specific evaluations related to activity content and administrative work. The latter refers to whether the activity brings sensory, emotional and spiritual satisfaction.

The Relationship between Activity Involvement, Place Attachment, Activity Satisfaction

Considering the relationship between activity involvement and activity satisfaction, in the study of Chen et al. [19], adolescents with higher leisure involvement had more positive leisure satisfaction. Russell [20] argued that it was the satisfaction with the recreation activity involvement that impacted the life satisfaction rather than the frequency of involvement. Laverie & Arnett [21] found in the study of fan activities that involvement has a positive impact on satisfaction, and vice versa will affect participation in activities through satisfaction. Lee [22] conducted a survey on tourists from different regions and found that involvement has a positive impact on satisfaction. Consequently, this study proposed: H1: Activity involvement has positive effect on activity satisfaction.

With regard to the relationship between place attachment and activity satisfaction, the study of Pan et al. [23] selected the interpretive volunteers of the National Museum of Natural Science in Taiwan as samples, and found out Activity involvement and place attachment both positively and significantly affect satisfaction. Similar result was got in the study of Lo et al. [24]. They conducted a survey to individuals who had visited the constructed wetland in the campus of the National Taiwan Normal University. The results indicated that place attachment was positively correlated with satisfaction. Therefore, this study proposed: H2: Place attachment has positive effect on activity satisfaction.

Considering the relationship between activity involvement and place attachment, Kyle et al. [8] found that all three dimensions involvement were significant predictors of place identity. However, only attraction significantly influenced place dependence. Gross & Brown's study [9] pointed out the positive relationship between involvement and place attachment. By using survey in Hangzhou, China, Xu, and Zhang [25] found involvement had positive influence on place attachment. Therefore, this study argued that activity involvement has positive effect on place attachment as Hypothesis 3 (H3).

According to the discussion of this section, activity involvement has positive effect on place attachment and activity satisfaction, and place attachment has positive effect on activity satisfaction as well. Logically, this study suggested that place attachment may have the

mediating effect on the relationship between activity involvement and activity satisfaction. This argument was hypothesis 4 (H4).

3. RESEARCH METHOD

Research Framework

Based on the research aims and the literature review, this study proposed the following research framework, shown in Figure 1, to investigate the mediating effect of place attachment on the relationship between activity involvement and activity satisfaction.

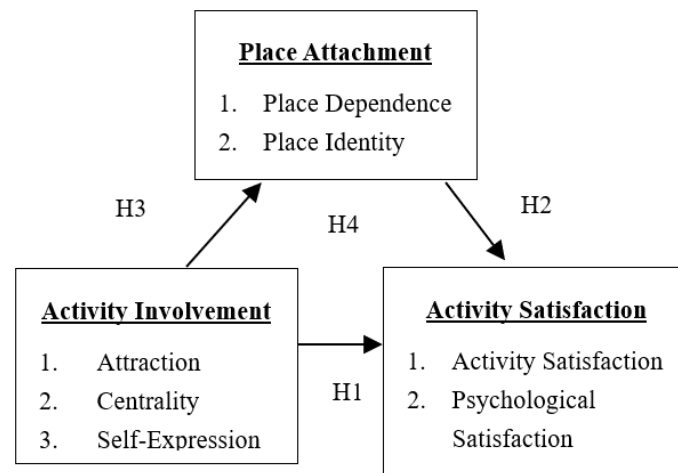


Figure 1 Research Framework

The Measurement

The measurement of Activity Attachment was revised from the studies of Kyle & Chick [26] and Kyle and Mowen [28]. Three dimensions were employed: Attraction ($\alpha = 0.925$, 3 items), Centrality ($\alpha = 0.919$, 3 items) and Self-Expression ($\alpha = 0.844$, 3 items). The Place Attachment measurement was based on the studies of Kyle et al. [8] and two dimensions were used: Place Dependence ($\alpha = 0.936$) with five questions and Place Identity ($\alpha = 0.913$) with five questions. The Activity Satisfaction measurement was based on the study of Beard and Ragheb [18] and selected two dimensions suitable to senior citizen activity, namely "Activity and Service Satisfaction" ($\alpha = 0.900$) with five questions and "Psychological Satisfaction" ($\alpha = 0.930$) with five questions.

The rating scale used the Likert 5-point score. The scales are divided into 5, 4, 3, 2, and 1 point. They are representative strongly agree, agree, no difference, disagree, and strongly disagree, respectively.

Sampling

This study took the elderly residents of the community as the research object. According to the age demographic statistics of the Shanhua District Office, there are about 678 senior residents in this community. After deducting the demented elderly, convenience sampling method was used for residents. The volunteers, staff and director general of the SH Community

Development Association assisted to deliver the questionnaires. Meanwhile, they helped the senior residents to solve the problem of font dyslexia. A total of 400 questionnaires were distributed and 387 valid questionnaires were returned, with a valid responding rate of 96.8%.

4. DATA ANALYSIS

Demographic Data

In Table 1, the information of demographic variables, including education level, gender, age and length of residence in the community.

Table 1 Demographic Information of Samples

| Variable | Item | Frequency | % |
|--------------------------------------|--------------------------|-----------|------|
| Education Level | Under Junior High School | 178 | 46.0 |
| | Above Senior High School | 209 | 54.0 |
| Gender | Male | 188 | 48.6 |
| | Female | 199 | 51.4 |
| Age | Under 50 | 84 | 21.7 |
| | Above 60 | 303 | 78.4 |
| Length of Residence in the Community | Under 20 Years | 20 | 5.2 |
| | Above 21 Years | 367 | 94.8 |

Descriptive Analysis and Correlation Analysis

In Table 2, the mean and standard deviation values of research dimensions pointed out that the respondents have higher mean value of each research dimension ($m > 3.900$). Within activity involvement dimensions, the mean of self-expression is the highest ($m = 4.112$). Regarding place attachment, the mean value of place identity is higher than place dependence ($m = 4.254 > 4.197$). Meanwhile, the level of psychological satisfaction is litter higher ($m = 4.295$) than activity satisfaction ($m = 4.273$). With regard to the results of correlation analysis, all research dimensions are related at certain level ($0.323 \leq r \leq 0.874$, $p < 0.01$).

Table 2 The Results of Descriptive Analysis and Correlation Analysis

| Variable / Dimension# | | Mean | SD | AT | CR | SE | PD | PI | AS | PS |
|-----------------------|----|-------|-------|-------|-------|-------|----|----|----|----|
| Activity Involvement | AT | 3.911 | 0.600 | 1 | | | | | | |
| | CR | | | 0.871 | 1 | | | | | |
| | | 3.945 | 0.618 | ** | | | | | | |
| | SE | | | 0.479 | 0.433 | 1 | | | | |
| Place Attachment | | 4.112 | 1.001 | ** | ** | | | | | |
| | PD | | | 0.643 | 0.672 | 0.394 | 1 | | | |
| | | 4.197 | 0.522 | ** | ** | ** | | | | |

| | | | | | | | | | |
|------------------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| | PI | | | 0.624 | 0.646 | 0.352 | 0.874 | 1 | |
| | | 4.254 | 0.494 | ** | ** | ** | ** | | |
| Activity Satisfaction | AS | 4.273 | 0.516 | 0.598 | 0.608 | 0.365 | 0.755 | 0.789 | 1 |
| | PS | 4.295 | 0.505 | 0.551 | 0.575 | 0.323 | 0.723 | 0.777 | 0.886 |
| | | | | ** | ** | ** | ** | ** | ** |

#AT: Attraction, CR: Centrality, SE: Self-Expression, PD: Place Dependence, PI: Place Identity, AS: Activity Satisfaction, PS: Psychological Satisfaction Note: * = $p < 0.05$ ** = $p < 0.01$ *** = $p < 0.001$

Regression Analysis

Since the standard regression coefficients and F values in Table 3 to Table 5 were all significant ($p < 0.001$), there is no significant mark in the tables to save page. In Table 3, the results of E1 to E3 pointed out that all dimensions of activity involvement were positively related to activity satisfaction ($0.365 \leq \beta \leq 0.608$). The results of E4 to E6 demonstrated that all dimensions of activity involvement had positive effects on psychological satisfaction ($0.323 \leq \beta \leq 0.575$). Centrality is the greatest influential dimension of activity involvement on all dimensions of activity satisfaction. In brief, Hypothesis 1 was supported. Regarding the effect of place attachment on activity satisfaction, the results in Table 4 showed that place dependence and place identity were all positively related to activity satisfaction and psychological satisfaction respectively ($0.723 \leq \beta \leq 0.789$). Place identity have greater influence than place dependence. Consequently, Hypothesis 2 was supported.

The results of E1 to E3 in Table 5 revealed that all dimensions of activity involvement were positively related to place dependence ($0.394 \leq \beta \leq 0.672$). The results of E4 to E6 demonstrated that all dimensions of activity involvement had positive effects on place identity ($0.352 \leq \beta \leq 0.672$). Centrality is the greatest influential dimension of activity involvement on all dimensions of place attachment. Therefore, Hypothesis 3 was supported.

Table 3 The Main Effect of Activity Involvement on Activity Satisfaction

| DV | AS | | | PS | | |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | E1 | E2 | E3 | E4 | E5 | E6 |
| AT | 0.598 | | | 0.551 | | |
| CR | | 0.608 | | | 0.575 | |
| SE | | | 0.365 | | | 0.323 |
| F | 213.99 | 226.34 | 59.16 | 0.304 | 0.331 | 44.80 |
| R² | 0.357 | 0.370 | 0.133 | 0.302 | 0.329 | 0.104 |
| Adj. R² | 0.356 | 0.369 | 0.131 | 0.302 | 0.329 | 0.102 |

#AT: Attraction, CR: Centrality, SE: Self-Expression, AS: Activity Satisfaction, PS: Psychological Satisfaction

Table 4 The Main Effect of Place Attachment on Activity Satisfaction

| DV | AS | | PS | |
|---------------------------|-----------|-----------|-----------|-----------|
| | E1 | E2 | E3 | E4 |
| PD | 0.755 | | 0.723 | |
| PI | | 0.789 | | 0.777 |
| F | 510.26 | 634.04 | 421.31 | 585.39 |
| R² | 0.570 | 0.622 | 0.523 | 0.603 |
| Adj. R² | 0.569 | 0.621 | 0.521 | 0.602 |

PD: Place Dependence, PI: Place Identity, AS: Activity Satisfaction, PS: Psychological Satisfaction

Table 5 The Main Effect of Activity Involvement on Place Attachment

| IV | DV | PD | | | PI | |
|---------------------|----|--------|--------|-------|--------|--------|
| | | E1 | E2 | E3 | E4 | E6 |
| AT | | 0.643 | | | 0.624 | |
| CR | | | 0.672 | | | 0.646 |
| SE | | | | 0.394 | | 0.352 |
| F | | 271.39 | 316.79 | 70.74 | 246.14 | 275.43 |
| R ² | | 0.413 | 0.451 | 0.155 | 0.390 | 0.417 |
| Adj. R ² | | 0.412 | 0.450 | 0.153 | 0.388 | 0.416 |

#AT: Attraction, CR: Centrality, SE: Self-Expression, PD: Place Dependence, PI: Place Identity

Referring to the arguments of Baron and Kenny [29], the existence of mediating variables can be investigated by conducting hierarchical regression analysis with the following procedures:

- Step 1: The independent variable and the dependent variable are significantly correlated.
 Step 2: There is a significant correlation between the independent variable and the mediating variable.
 Step 3: After the mediating variable is added in the regression with the independent variable simultaneously, the direct relationship coefficient between the independent variable and the dependent variable will decrease. If the direct effect between the independent variable and the dependent variable is still significantly correlated, then this mediating effect belongs to a partial mediating effect, or a fully mediating effect if uncorrelated.

The analysis findings showed that place attachment had at least certain level of partial mediating effect on the relationship between activity involvement and activity satisfaction. Because of the page limitation, the results of full mediating effect were demonstrated. Only self-expression had full mediating effects on the relationship between place attachment (including place dependence and place identity respectively) and psychological satisfaction. In Table 6 and Table 7, the E1, E2 and E3 represent the first, second, and third steps proposed by Baron and Kenny [29], respectively. In short, comparing the standard regression coefficients of SE in E1 and E3 of Table 6 and Table 7, the values changed from significant to insignificant. Consequently, H4 was partially supported.

Table 6 The Mediating Effect of Self-Expression on the Relationship between Place Dependence and Psychological Satisfaction

| IV | DV | PS | PD | PS |
|---------------------|----|----------|----------|-----------|
| | | E1 | E2 | E3 |
| SE | | 0.323*** | 0.394*** | 0.045 |
| PD | | | | 0.705*** |
| F | | 44.80*** | 70.74*** | 211.56*** |
| R ² | | 0.104 | 0.155 | 0.524 |
| Adj. R ² | | 0.102 | 0.153 | 0.522 |

#ASE: Self-Expression, PD: Place Dependence, PS: Psychological Satisfaction

Note: * = $p < 0.05$ ** = $p < 0.01$ *** = $p < 0.001$

Table 7 The Mediating Effect of Self-Expression on the Relationship between Place Identity and Psychological Satisfaction

| DV | PS | PI | PS |
|---------------------|----------|----------|-----------|
| IV | E1 | E2 | E3 |
| SE | 0.323*** | 0.352*** | 0.056 |
| PI | | | 0.777*** |
| F | 44.80*** | 54.49*** | 295.35*** |
| R ² | 0.104 | 0.124 | 0.606 |
| Adj. R ² | 0.102 | 0.122 | 0.604 |

SE: Self-Expression, PI: Place Identity, PS: Psychological Satisfaction.

Note: * = $p < 0.05$ ** = $p < 0.01$ *** = $p < 0.001$

5. CONCLUSIONS AND DISCUSSIONS

With respect to the results of descriptive analysis, senior residents can reflect higher activity participation in terms of attraction and centrality when participating in community activities. Meanwhile, self-expression has its unique personal style and individual special personality traits, which can better show the enthusiasm for participating in community senior activities. With regard to the level of place attachment, higher value of place identity, comparing to place dependence.

Hints that the respondents generally perceive the meaning and belonging of the community which are highly related to long-term residential experiences in the community. For activity satisfaction, higher value of psychological satisfaction reflects the meaning of senior citizen activity is concentrated on the chance of communication and companionship in life. That means a mechanism for establishing and maintaining social support through activities.

With regard to the relationship between activity involvement and activity satisfaction, it can ask senior residents what kind of activities they want to have in the future to increase the participation of residents when the community holds activities in the future. It has been observed that senior residents who are grandparents will bring their preschool grandchildren to participate in n senior activities. Therefore, it is suggested to increase intergenerational activities, or cooperate with universities and colleges to plan the intergenerational activities in order to increase the richness of community activities.

As regards the relationship between place attachment and activity satisfaction, the community development associations can host many events to accompany the celebrations with unique cultural or historical concept linked to the community. When organizing activities, community development association can do some exchange activities such as reading clubs or discussions to meet the needs of the community elders, so that the elders can get closer to each other. In addition, the association can provide more special services that other communities do not have, such as combining local agricultural products or elderly care services.

Considering the mediating effect of place attachment on the relationship between activity involvement and activity satisfaction, for the elderly residents of the community, the psychological satisfaction of participating in activities is generated because of local dependence and local identify with the community, and has no direct relationship with self-expression. Therefore, as long as there is a relationship with the community when the community organizes activities, the elderly residents may like it very much. It is also possible

to take advantage of this trend to start marketing community humanities, environment, industries, etc., conduct more local community trips, let senior residents serve as tour guides, or produce community publications, cultural publicity, videos, etc. with the background of residents' life, so that senior residents can easily connect the identity of the community, introduce their hometown, and also serve as a cultural heritage. Furthermore, it will be greater to allow senior residents to participate in the discussion and planning of important community projects since it can establish their special connection with the community and can also improve the self-expression of senior residents.

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