

Original article

The Development of a Town of Safety, Security and Health Project in an Area with a Very High Population Aging Rate—The Activities of a Community Salon on a Shopping Street and Their Assessment—

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Abstract

Objective: The aim of this study was to assess the “Health Care Town in Kyoto” project designed to promote health and safety for health conscious people in a small community. We conducted a survey involving the users of the salon and local residents to examine the effects of the activities in the salon.

Methods: We recorded the activities of salon and conducted semi-structured interviews with ten local residents to ask their opinions about the salon. The data from the interviews were analyzed using the Grounded Theory Approach. We distributed a questionnaire and collected 215 valid responses (valid response rate: 67.8%).

Results: 1) Purpose of using the salon was categorized into health consultation, conversation with others, rest and other purpose. 2) The significance of the salon for users was categorized into usability, acquisition of useful information, changes in daily habits and their maintenance, diversion, interaction with other people and acceptance by the shopping center. 3) The results of the questionnaire survey showed marked relations between Well-Being Index (WHO-5), age, employment and family budget, self-rated health and ability to perform daily activities (TMIG), whereas use of the salon was not associated with Well-Being Index (WHO-5). On the other hand, there were marked relations between loneliness (LSO), educational background and use of the salon, demonstrating that the facility helped its users reduce loneliness (LSO).

Conclusion: In this town, the salon has served as a place providing effective preventive support for the health of individual users.

Key words: a very high rate of people 65 years old or older, shopping street, health promotion, action plan

(*J Rural Med* 2011; 6(2): 65–70)

Introduction

In Japan, the number of elderly couples and single elderly households is increasing every year¹⁾. Some elderly people are referred to by the media as “shopping refugees”, those who have difficulty in daily shopping. Elderly people are prone to be inactive and remain in their homes due to reduced physical functions associated with aging. Watanabe²⁾ suggested in his report that the inactivity of the elderly and reduced interaction with neighbors may become risk factors for care needs. In urban communities with less cohesive relationships, elderly people are most likely to be solitary, and this may affect their physical functions.

A survey of single elderly households reported that the presence of siblings or friends and emotional and instrumental support reduces social isolation and the risk of psychological distress in the elderly^{3, 4)}. Interaction with others may also reduce the sense of isolation and enhance mental health.

We set up the Sukoyaka (being healthy and sound) Salon as a place for communication on the Furukawa-cho Shopping Street (located in the Awata School District, which has a population aging rate of 31.7%) in Higashiyama ward, which has the highest aging rate in Kyoto City. Our aim was to create a preventive support system designed for health promotion in a small community based in the salon and implement an action plan⁵⁾. This study reviews the evaluation of its activities.

Methods

Action plan

1) Target site

The aging rate in Higashiyama Ward is the highest

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(25.5%) in Kyoto City, and is also one of the highest in the entire country⁶). Furukawa-cho Shopping Street (shopping street), located in the Awata School District of Higashiyama Ward, is a pedestrian arcade 2—3-meters wide and has long been used mostly by the local elderly. Many elderly people walk to this shopping street with shopping trolleys or canes.

2) Interaction in the salon

The salon was set up by referring to prior literature⁷) on the compositional elements of a naturally generated community space (T store) for elderly in an urban district. Since 2005, we have rented a vacant shop, and maintained the salon with the aid of graduate and undergraduate students, along with a qualified nurse stationed there. In the salon, staff members provide health consultation in order to prevent social withdrawal and to encourage health-promoting behavior in the community. In collaboration with the shopping center promotion association and local government (a women's association), the salon also has implemented a variety of events and programs: Sukoyaka Salon Exercise and other health promotion programs, festivals for children, tea ceremonies and calligraphy exhibitions.

Subjects and data collection

In this study, to investigate the effects of salon installation on areas within the Awata School District, survey data were collected employing qualitative and quantitative approaches.

We categorized the behavior of salon users based on the operation log recorded between September 2005 and March 2008. Between July and September 2007, we conducted semi-structured interviews with ten local residents (six regular users and four shopkeepers) to ask about their experience and opinions regarding the salon. In January 2008, we distributed a questionnaire, by the placement method, to a total of 317 people (45 shopkeepers and their family members, four regular users and 268 members of the women's association in the school district) and collected 215 valid responses (valid response rate: 67.8%).

Analytical methods

To examine the purpose of using the salon and styles of interaction among its users, the opinions and comments in the operation log were categorized, and code names were assigned to each category. We documented the results of the interviews.

The results were analyzed based on the Grounded Theory Approach⁸). The content and classification of the categories were discussed and further validated by some experienced field researchers. Regarding the questionnaire, we performed multiple regression analysis of the results, using SPSS 15.0J, with the basic attributes of the respondents

(sex, age, living alone, educational background, family budget, associate as neighbors, illness at present) and 7 health practices⁹) and categorized the aims of the salon users documented in the operation log. Their aims included the following 7 items: greetings, blood pressure measurement, use of health-related documents, borrowing/lending books, rest and conversation in the salon, health consultation and participation in exercise programs. The frequency of salon use (represented as the total score [on a four-grade scale from 0 to 3] for the following 7 items), and ability to perform daily activities (I-ADL: TMIG Index of Competence scores¹⁰) and self-related health were considered to be independent variables, and Well-Being Index (WHO-5)¹¹) and Loneliness Scale by Ochiai (LSO)¹²) scores were considered to be dependent variables.

Ethical considerations

Giving due consideration to ethical issues, we posted the purpose of the survey and its methods in the salon and provided visitors with a detailed explanation in oral form. Prior to conducting an interview, an explanation was given to the participants in the study regarding its purpose, the protection of personal information and the fact that participation in the survey must be based on their own volition, and we obtained their signed consent. A similar written explanation was also included in the questionnaire, and submission of the survey sheet was regarded as agreement to participate in the study. The present study was conducted with the approval of the Ethics Committee of the Graduate School of Medicine, Kyoto University.

Results

The status of salon use and types of interaction in the operation log

The majority of salon users were local residents aged 65 or older living in the Awata School District according to the operation log. The purpose of salon use was categorized into health consultation (regarding diet and exercise to prevent lifestyle-related diseases, consultation with physicians, the results of health checkups and nursing care for family members and their health problems), conversation with others, rest and other purposes (Figure 1). The total numbers of users reporting use of the salon for health consultation and conversation with others in 2005, 2006 and 2007 were 55,111 and 233 and 47, 263 and 234, respectively, accounting for more than half of the total users every year. The total numbers of users reporting use of the salon for rest and other purposes were 46, 52 and 50 and 22, 42 and 20 in 2005, 2006 and 2007, respectively.

During the first year (September 2005 – September

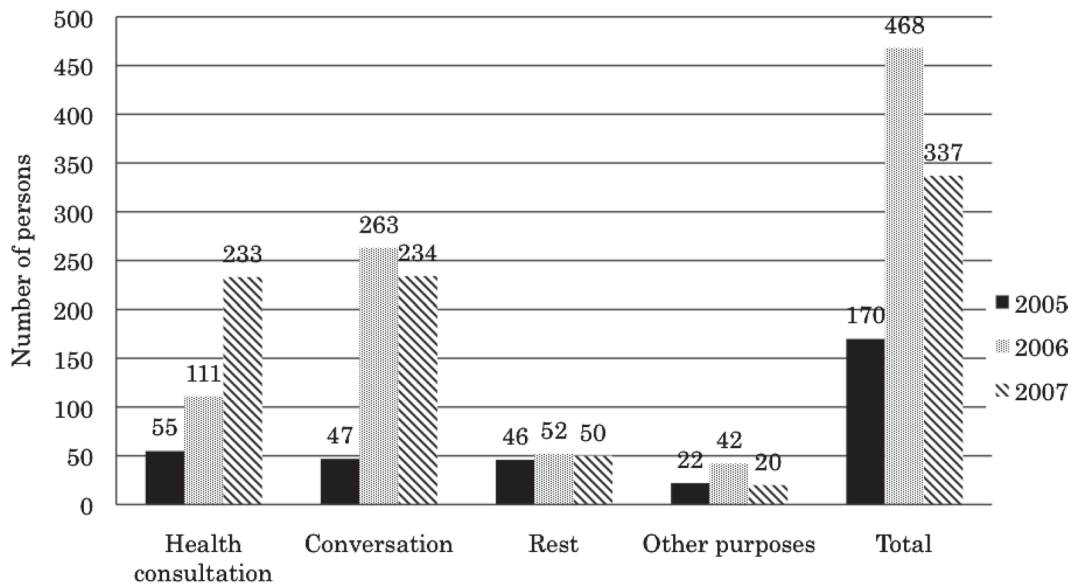


Figure 1 Distribution of purpose.

Table 1 Significance of the salon for users

Category	Subcategory
Usability	Ease of use Variety of choices Sense of security
Acquisition of useful information	Valuable opportunity to obtain information Information sharing
Changes in daily habits and their maintenance	Changes in dietary habits Adoption of habitual exercise Practicing healthy lifestyle
Diversion	Conversations and exercise to refresh oneself
Interaction with other people	Opportunities to meet others
Acceptance by the shopping center	Favorable attitudes towards the salon

2006), person-to-person interaction between a user and staff member (an instructor or graduate student qualified as a nurse) was common. However, with the increase in the number of users from around the second year (October 2006), a diverse form of interaction between users and staff members and among users has been observed in the salon.

The significance of the salon for users

The following main categories were extracted from the interview results:

Usability, Acquisition of useful information, Changes in daily habits and their maintenance, Diversions, Interaction

with other people and Acceptance by the shopping center (Table 1).

The [Usability] category included items such as <ease of use>, <variety of choices> and <sense of security>. Regarding <ease of use>, most users “felt free to consult” about health information and “felt comfortable talking (to the staff)” in the salon. Concerning <variety of choices>, the users considered the exercises regularly conducted at the salon to be completely based on their free will, as they answered “I can participate in an exercise whenever I want,” “I can freely perform an exercise” and “Watching people doing exercise gets me motivated to start exercising.” Re-

garding <sense of security>, the users felt “trust in discussing health issues,” since the staff members were university instructors and also a qualified nurse. For the salon users, staff members were regarded as a visible security presence on the local shopping street. The salon was also regarded as a place in which users can actively and freely participate in exercise and can also comfortably consult about health issues. The users acknowledged the salon as a place promoting easy and free participation.

[Acquisition of useful information] consists of the two subcategories: <valuable opportunity to obtain information> and <information sharing>. The first one, <valuable opportunity to obtain information>, means that the users can obtain necessary information whenever they want. In fact, the users obtained information when “they wanted to know about cholesterol.” In the salon, staff members posted information about lifestyle-related diseases or osteoporosis and distributed exercise program brochures with a photograph to the salon users at the time of consultation or to the elderly who showed an interest. The provision of information by staff members at the right time and easy access to information may have led to a change in users’ daily habits. Regarding <information sharing>, the salon users spoke about the location and exercises to share the obtained information with their families. Health-related information may be used as a communication tool among neighbors or family members.

[Changes in daily habits and their maintenance] consists of the following subcategories: <changes in dietary habits>, <adoption of habitual exercise>, and <practicing a healthy lifestyle>. Regarding <changes in dietary habits>, a user suspected of showing abnormal lipid metabolism by a physician modified her daily intake of fat and carbohydrates, and succeeded in decreasing her blood fat levels by obtaining the requisite health-related knowledge at the salon. Furthermore, the above health-related change also affected her family’s dietary habits. Regarding <adoption of habitual exercise>, each user effectively utilized the salon to maintain habitual exercise, e.g., participate in exercise at the salon and continue it at home, and performed Sukoyaka Salon Exercise while walking for exercise. Concerning <practicing a healthy lifestyle>, the users measured their blood pressure and consulted a staff member about their health condition and exercise habits before performing exercise so that they could maintain their exercise level and dietary habits.

[Diversion] consist of <conversations and exercise to refresh oneself>. The salon users enjoyed participating in exercise with their neighbors, as they “felt great” or “felt tense without exercising.” In addition, they said that having conversations with neighbors or staff members made them feel refreshed, and another regular user said, “Conversation

with others makes me feel accepted by society and relaxes me.”

[Interaction with other people] consists of <opportunity to meet others>, which represents interactions among staff members and other salon users. The users actively deepen relationships with other users, such as by making arrangements for a flower-viewing party or talking about their health conditions.

[Acceptance by the shopping center] consists of <favorable attitudes towards the salon>. Because the users enjoy the salon, the shopkeepers viewed the salon favorably and accepted it as an exceptional feature of the shopping center.

Relationships among subjects’ characteristics, sense of happiness and isolation, and salon use

1) Characteristics of the subjects

The subjects consisted of 317 local residents (45 shopkeepers and their family members, four regular users and 268 members of women’s association in the school district), and we collected 215 valid responses (valid response rate: 67.8%) from 28 males (13.1%) and 187 females (86.9%) (mean age: 65.0 ± 12.3 ; 75 subjects (34.9%) in the age range of 29-64; 78 subjects (36.3%) in the age range of 65-74; 48 subjects (22.3%) over 75 years). Subjects over the age of 65 accounted for 60% of the total.

2) Factors associated with a sense of happiness and loneliness

We performed multiple regression analysis of the results with the basic attributes of the respondents, 7 health practices, the frequency of salon use (represented as a total of scores for the following items: greetings, blood pressure measurement, the use of health-related documents, borrowing/lending books, rest and conversations in the salon, health consultation and participation in exercise programs), TMIG Index of Competence scores and self-rated health as independent variables and Well-Being Index (WHO-5) and Loneliness Scale by Ochiai (LSO) scores as dependent variables. Well-Being Index (WHO-5) was significantly correlated with age ($\beta = .191, p = .030$), employment at present ($\beta = .174, p = .020$), family budget ($\beta = .149, p = .037$), self-rated health ($\beta = .302, p = .000$) and ability to perform daily activities (I-ADL) ($\beta = .240, p = .001$), whereas the frequency of salon use ($\beta = -.043, p = .528$) was not correlated with Well-Being Index (WHO-5) (Table 2). On the other hand, Loneliness (LSO) showed a significant correlation with educational background ($\beta = .245, p = .010$) and the frequency of salon use ($\beta = -.202, p = .025$) (Table 3).

Table 2 Factors associated with happiness (Well-Being Index, WHO-5)

Factor	β	P value
Sex	-.018	.809
Age	.191	.030
Living alone	-.106	.122
Employment at present	.174	.020
Educational background	.050	.501
Family budget	.149	.037
Self-rated health	.302	.000
Associate as neighbors	.046	.502
Illness at present	.008	.917
Frequency of salon use	-.043	.528
Health practices	.132	.064
IADL (TMIG Index of Competence scores)	.240	.001
R	.626***	
R ²	.391	

***<0.001. Multiple Regression Analysis.

Table 3 Factors associated with loneliness (Loneliness Scale by Ochiai, LSO)

Factor	β	P value
Sex	-.078	.420
Age	.102	.340
Living alone	-.056	.517
Employment at present	.046	.620
Educational background	.245	.010
Family budget	.063	.489
Self-rated health	.024	.810
Associate as neighbors	.072	.405
Illness at present	.006	.947
Frequency of salon use	-.202	.025
Health practices	.070	.429
IADL (TMIG Index of Competence scores)	.147	.108
R	.626***	
R ²	.391	

***<0.001. Multiple Regression Analysis.

Discussion

Use of the salon and its significance for the elderly in the Awata School District

Health consultation and conversation were the main purposes of using the salon, which functioned as a place of social interaction for the elderly. The results of a questionnaire survey revealed that salon use led to a decrease in the sense of isolation. Perlman and Peplau¹³⁾ reported that “Loneliness is a subjective experience resulting from a lack of social interaction and is often associated with pain.” People in later life usually experience the death of their close friends or acquaintances, which often leads to depression. In consequence, their social activity or communication with neighbors gradually decreases, further increasing the isolation of elderly people¹⁴⁾. Thus, it is highly likely that elderly people, with aging, become isolated by developing a sense of loneliness due to a lack of support or care. In this study, interaction among the staff members or other salon users and participation in events such as “Sukoyaka Salon Exercise” may have led to a decrease in the sense of isolation, as found in a previous report¹⁵⁾ suggesting that active participation of elderly people inhibits a decrease in mental and social health and promotes a higher level of physical function compared with nonparticipants.

Kono¹⁶⁾ reported that elderly men living alone in big cities consider that they are self-sufficient and feel no inconvenience regarding their lives, yet they are concerned about deteriorations in their dietary habits or health status and have anxieties over dying alone, which remain as issues.

Evaluation of a practical approach for preventive purposes to support elderly people in big cities is still required. The shopping street was closely associated with the local residents. The activities that took place on the shopping street were regarded as an effective support model in order to prevent social isolation in the elderly and maintain their social bonds.

Function of the salon in small community

During the first year, person-to-person interaction between users and staff members was common. However, from around the second year, diverse forms of interaction between users and staff members and among users were observed in the salon. This may have been due to an increase in recognition of the salon among residents and an increase in regular users.

The significance of the salon for the users revolved around [usability] and [acquisition of useful information], indicating that the salon is regarded as a free space that users can actively access. For this reason, the salon was set up in an accessible shopping center located in a local school district. As another study¹⁷⁾ reported that the distance to a local community center is closely related to its use, physical accessibility is one of the factors of usability. In addition, flexibility of active use is also considered a factor. In the salon, besides health consultation, staff members posted information about lifestyle-related diseases and distributed exercise program brochures to the salon users. Thus, the salon users always had flexible means of obtaining necessary information, and this ensured accessibility. Furthermore, we

have been conducting an exercise program called Sukoyaka Salon Exercise. As shown in the results of the survey, which showed that [changes in daily habits and their maintenance] consist of <changes in dietary habits>, <adoption of habitual exercise> and <practicing a healthy lifestyle>, setting up of the salon and implementation of various health-related activities in the shopping street may have affected shopkeepers' and users' sense of well-being.

A small community-based salon on a local shopping street is an accessible place that effectively works to support preventive healthcare for the elderly.

Conclusion

In this study, we conducted an action plan based in a salon on a shopping street and evaluated its effects involving salon users and local residents. No correlation with users' sense of happiness was observed; however, there was a correlation with salon use in regard to reduction of loneliness. A small community-based salon may work to prevent elderly isolation and support preventive healthcare.

There is a strong possibility that the selection of subjects was biased, since the participants in the present study included only people from the women's association in the Awata School District (in which the salon is located) and people associated with the shopping center. While further developing our programs on the basis of the network system established through the salon-based activities, we should conduct a comparative study involving the residents of both Awata and other school districts.

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