A Fundamental Study on the Planning of Elderly Housing Environment*

- Focused on a preference of middle-aged people for elderly housing

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Abstract

The purpose of this study is to investigate preferences of middle-aged people for elderly housing in order to properly plan elderly housing; 1) To analyze the middle-aged peoples' preferences for elderly housing in each situation based on the following 4 categories; elderly couple/healthy, elderly couple/unhealthy, elderly living alone/healthy, elderly living alone/unhealthy. 2) To clarify the differences in preferences for elderly housing according to the subjects' backgrounds in each case.

This research intends to understand the form of elderly housing and desire for the environment of subjects, middle-age, who will be old aged, and the change of preference to characteristics for elderly housing according to the change of situation. The data were collected through structured questionnaires. The subject were 298 middle-aged, 40-50's who will be experiencing aging, major customer of elderly housing in the future.

I. Introduction

1. Background

Since 1970, the percentage of senior citizens in Korea has been increasing. This trend is expected to accelerate after 2000. The senior population will reach 7% in 2001, and 13.1% in 2020. This trend shows that our society is "aging" faster than other developed countries[1]. As the number of nuclear families (based on married couples) become the majority in Korea, the percentage of seniors who live apart from their children has been ever-increasing. These trends show that the development and improvement of elderly housing are needed.

Korean seniors traditionally have been taken care of by their children. Up to now, most elderly housing in Korea has provided institutional type settings only for low-income seniors. Now things, however, are changing as Korean society becomes industrialized. From now on there will be a need for housing that is not institutional but proper for all elderly people. The meaning of housing has much more importance for the old-aged compared to other age groups.

There are many factors to consider when we think about improvements in elderly housing. Basically the development of housing which satisfies the old-aged is needed.

Currently, there are some retirement houses for the elderly in Korea, but their occupancy rate is very low, for the following reasons: seniors' lack of interest in this type of housing; poor location (too far from the cities); limited facilities; korean traditional values; and negative attitudes towards seniors' living alone[2]. This shows it is necessary to assess elderly's needs in the development of such housing. Analyzing needs of the old-aged for elderly housing is important, but in order to get valuable information, it is necessary to analyze the needs of the middle-aged who will become future seniors and real consumer of elderly housing.

The elderly have more diverse "situations" than young people[3]. Previous researches have pointed out that elderly people should be considered in terms of their health[4)5), and marital status[6]. It is therefore necessary to classify their situations and to understand their needs and preferences in each case.

2. Purpose

The purpose of this study is to investigate preferences of middle-aged people for elderly housing in order to properly plan elderly housing. Specific purposes of this study are as follows:

(1) To analyze the middle-aged peoples' preferences for elderly housing in each case based on the following 4 categories; elderly couple/healthy, elderly couple/unhealthy, elderly living alone(elderly living with spouse)/healthy, elderly living alone/unhealthy.

(2) To clarify the differences in preferences for elderly housing according to the subjects' backgrounds in each situation.

II. Review of literature

As our society has became industrialized, the family living situation has changed to that of a nuclear family, which is based on a married couple. A survey done by the Korean Research Institute for Social Health[7] using a nationwide sample of 7,250 households concluded that the ratio of the elderly who live independently has been increased 60% from 1988 to 1994. This ratio is expected to grow in the future. This is due to the fact that the elderly are increasingly financially independent and therefore they tend to live separately from their children. This result suggests that there will be increasing needs for the elderly housing to accomodate a growing number of seniors who live alone.

Research which investigated elderly-alone-households older than 65[8] concluded that the average length of time spent in their houses is 17.5 hours a day. This is relatively longer than other age groups. Even more, 12.1% of the sample stay at home all day. This shows that the elderly stay within their housing environment longer than in any other places. The importance of the housing environment for the elderly is growing due to their decreased mobility. The impact of the housing environment on the life and housing satisfaction of the elderly is acute[9]. Therefore, the supply of proper elderly housing is an important issue in terms of elderly welfare.

According to previous studies about the preferences for elderly housing, senior or middle aged people prefer living independently to living with children.[10] When living independently, they wanted to live in the detached house,[11)12)] which is 15~ 20pyeong(60~70sq. yard)[11)]. And, the suburbs are preferred for the location of the elderly housing[12)]. But these trends are changable depending on the situations according to their health condition and marital status; being married and healthy, being married and unhealthy, being single and healthy, and being single and unhealthy[6)]. Because the situation of the elderly population is not homogeneous, that is, it is necessary to consider each case on a more personal basis.

III. Methodology

Middle-aged people in their 40-50's who live in Seoul were selected as subjects. The characteristics of sampling in this research were not the elderly in the present time but the consumers of retirement housing in the future. They are perhaps more capable of solving problems in housing than over 60. Data were collected from Feb. 7 to 21, 1999. The number of 400 questionnaires were sent to the parents of both high school and University students in Seoul and 310 were collected. After uncompleted questionnaires were excluded, 298 were analyzed.

Questionnaires included 1) subject's background; sex, age, education, income, house type, providing for old age, 2) preference to live with the child; including distance from them, 3) preferences for the type, location, size, and neighborhood of planned elderly housing. This study adopted frequency, percentage, average, and x^2 - test for statistical analysis.
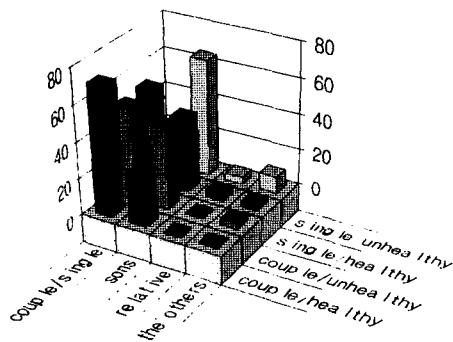
IV. Results

1. Subject background

The average age was 48.5 years old. 48.7% of the subjects were male, and 51.3% were female. In terms of education, 40.6% were high school graduates. 56.7% were mostly Christians in religion. 94% of subjects had less than 5 members in their family. 64.4% had 1 or 2 children. Home-owners were 69.8%, average monthly income was between 1 and 2 mil. won, and 55.4% answered that their satisfaction with income was not bad. In terms of providing for old age, 57.0% of subjects answered 'have prepared', and 34.6% 'going to prepare'.
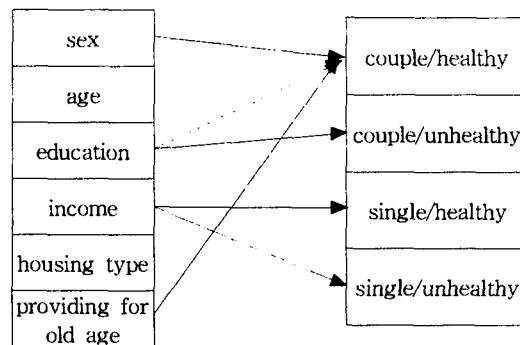
2. Preference to live with the child

When the subjects' child/children were married, 71.1% of subjects wanted to live independently from the married child if they were elderly couple/healthy, but it went down to 21.8% in case of elderly living alone/unhealthy<Fig.1-1>. While the ratio of wanting to live with married child was 27.9% in the case of elderly couple/healthy, it went up to 65.1% in case of elderly living alone/unhealthy. That is, the elderly couple/healthy wanted an independent life but elderly living alone/unhealthy tended to depend more on their children. Health was more important than marital status as to whether to live with kids or not.

To find out the relationship between subjects background and preference to live with the children in each situation, x^2-test was used, in the case of the elderly couple/hea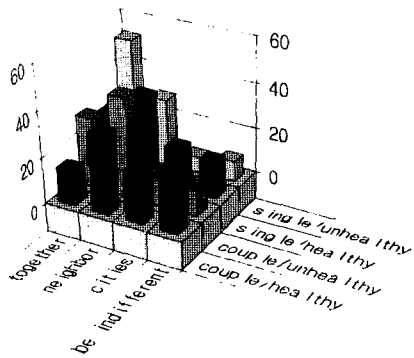lthy, there were significant differences according to sex($p<.01$), education($p<.01$), and providing for old age($p<.01$) <Fig.1-2>.
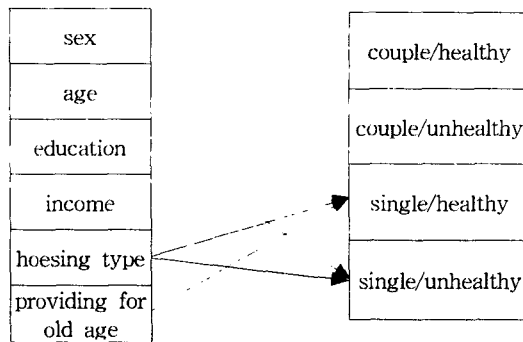

-Fig. 1-1 Preference on the person who share the house

<Fig. 1-2> Subjects background influenced on preference of living with the children in each situation

→ : Significant (P<.05) when χ^2-test was used

The proportion of female who wanted to live separately in case of the elderly couple/healthy was larger than male respondents. The more educated, the more respondents preferred to live independently. And respondents who prepare for their retirement prefer to live independently in comparison to the other groups. In the case of the elderly couple/unhealthy, there were significant differences due to education only($p<.05$). The lower the degree of education, the more respondents wanted to live together. In the case of the elderly living alone/healthy and the elderly living alone/unhealthy, there were significant differences related to subjects income($p<.01$). That is, the higher their income, the bigger their desire to live separately when they will live without spouse. In terms of spatial relationship with the first son, in case of elderly couple/healthy, 34.2% wanted to live near the first son<Fig.2-1>. And next 26.5% said that the distance didn't matter. In the case of elderly couple/unhealthy, 43.6% wanted to live near the son and 30.9% to live together. As for elderly living alone/healthy, 37.2% liked to live near the son. Most subjects wanted their independence, while in the case of elderly living alone/unhealthy, the tendency to depend on and get help from the first son became stronger.

In the case of the elderly couple/healthy and the elderly couple/unhealthy, there was no difference according to subject backgrounds. However, in the case of the elderly living alone/healthy, there were significant differences according to the housing type($p<.05$) and providing for old age($p<.05$)<Fig.2-2>.

sex
age
education
income
hoesing type
providing for old age

couple/healthy
couple/unhealthy
single/healthy
single/unhealthy

<Fig. 2-1> Spatial relationship(distance) with the first

<Fig. 2-2> Subjects background influenced on spatial relationship with the first sons in each situation

→ : Significant (P<.05) when x^2-test was used

The group who live in detached houses wanted to live together with the first son, but the group who live in apartments wanted to live near by the first son. The respondent group who made retirement preparations more wanted to live near by the first son than to live together with the first son. In the case of the elderly living alone/unhealthy, there were significant differences according to the education(p<.01) and housing type(p<.05). The lower the degree of education the more respondents wanted to live together. The respondents lived in detached houses wanted to live together in comparison to the other groups.

Unlike the son's case, the ratio of wanting to live near daughters was very high in all four situations. That is, even though elderly living alone or unhealthy, the ratio of wanting to live near daughters' was higher than living together<Fig.2-3>. The study confirms the high tendency to depend more on sons than daughters in Korea. In all categories, there were significant differences according to housing type(p<.05), education(p<.05) and providing for old age(p<.05)<Fig2-4>.

sex
age
education
income
housing type
providing for old age

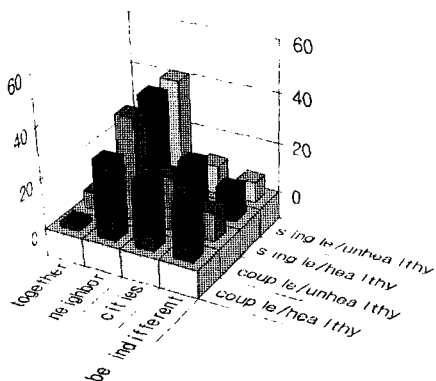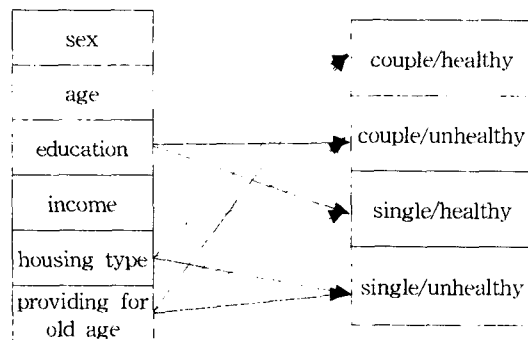| couple/healthy |
| --- |
| couple/unhealthy |
| single/healthy |
| single/unhealthy |

Fig. 2-3 Spatial relationship(distance) with the daughters

<Fig. 2-4> Subjects background influenced on spatial relationship with the daughters in each situation

→ : Significant (P<.05) when x^2-test was used

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The lower the degree of education, the higher proportion of respondents wanted to live with daughters. The group who currently live in a detached house wanted to live together with daughters as they are becoming unhealthy. Among the respondent group who made retirement preparations, the group who wanted to live near by the daughters was larger than the group who wanted to live together with daughters.
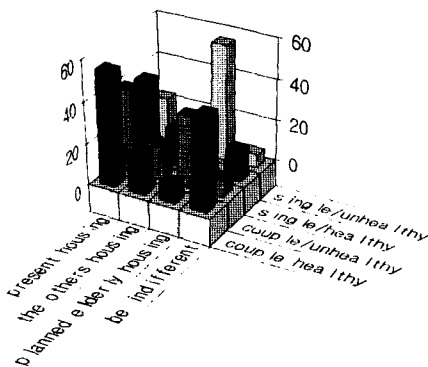
3. Preference of the Elderly Housing Characteristics

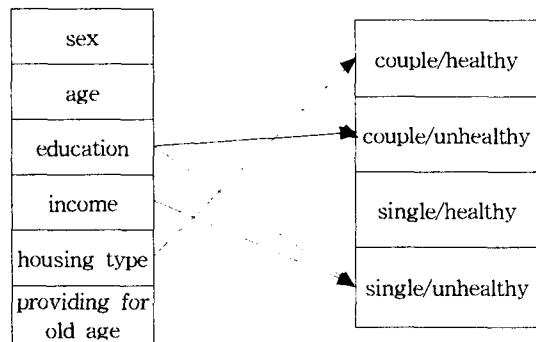### 3-1. Preference of living the planned housing and type

Fifty-five percentage of the elderly couple/healthy respondents wanted to stay at their current home as opposed to 56.4% of the elderly living alone/unhealthy seniors who wished to move into planned housing<Fig.3-1>. Also, in the case of being single as opposed to couples, the tendency to move into planned housing was gradually increasing regardless of health.

The ratio of the elderly couple/healthy or the elderly living alone/healthy preferring independent housing were 83.2% and 60.4% respectively, but amongst respondents the elderly couple/unhealthy or the elderly living alone/unhealthy, the ratios of preferring half-dependent or half-protective housing were 52.3% and 50.7% respectively<Fig.4-1>. However, in all four case, as the ratio of "hoping to live in present housing" clearly proved, seniors were not willing to change their housing environment easily.

In terms of the preference for living in planned housing, in the case of the elderly couple/healthy, there were significant differences according to subjects' housing type($p<.01$)<Fig.3-2>.

<Fig. 3-1> Willingness to move into the planned elderly housing

<Fig. 3-2> Subjects background influenced on Preference of the willingness to move into the planned elderly housing in each situation

→ : Significant ($P<.05$) when x^2-test was used

The respondents lived in detached house preferred to live in current house in comparison to the respondents lived in the other housing type. In the case of the elderly couple/unhealthy, these differences were affected by sex($p<.01$) and education($p<.05$). More female respondents preferred to live in planned housing than male respondents. The higher the education the more respondents preferred to live

in planned housing when they become unhealthy regardless of their marital status. In the case of the elderly living alone/healthy, there were no significant differences. In the case of elderly living alone/unhealthy showed significant differences according to subjects' education($p<.01$) and income($p<.05$). The lower their income, the more respondents preferred to live in planned housing when they become unhealthy.

In terms of the preferences for the type of planned elderly housing, in the case of the elderly couple/healthy, there were large differences according to age($p<.01$), education($p<.05$) and income($p<.01$)<Fig.4-2>.
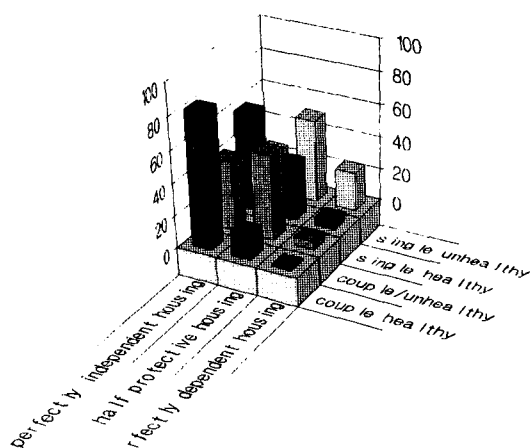

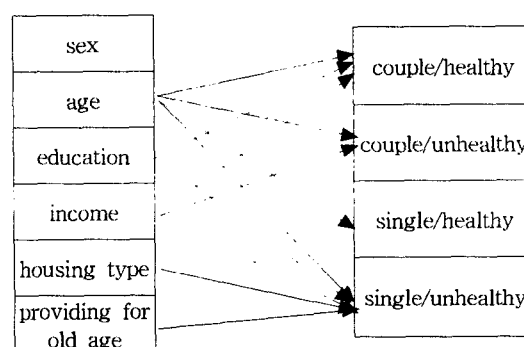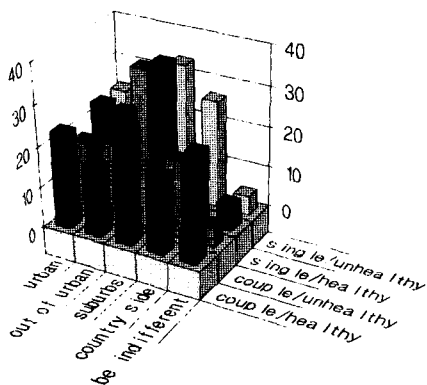Fig. 4-1. Preference on the type of the planned elderly housing

Fig. 4-2. Subjects background influenced on Preference of the type of the planned elderly housing in each situation
→ : Significant (P<.05) when χ^2-test was used

As for the elderly couple/unhealthy, there were also major differences according to age($p<.01$) and income($p<.001$). In the case of the elderly living alone/healthy, seniors had significant differences according to age($p<.01$). In the case of the elderly living alone/unhealthy showed differences according to age($p<.01$), education($p<.01$), income($p>.05$), housing type($p<.01$), providing for old age($p<.001$).
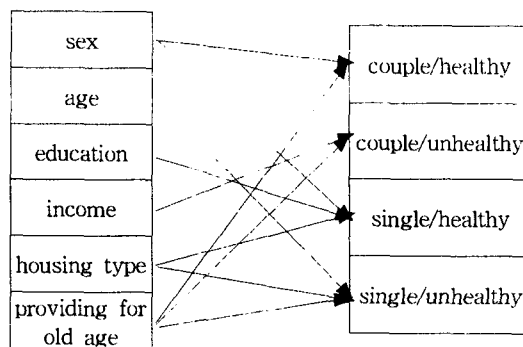
3-2. Preference for the location of elderly housing

In terms of location in all four case, the elderly wanted to live in the suburbs <Fig.5-1>. The elderly couple/healthy or the elderly living alone/healthy or elderly living alone/unhealthy chose urban, while the elderly couple/unhealthy wanted rural accomodations.

In the case of the elderly couple/healthy, there was significant differences according to sex($p<.05$) and providing for old age($p<.05$)<Fig.5-2>.

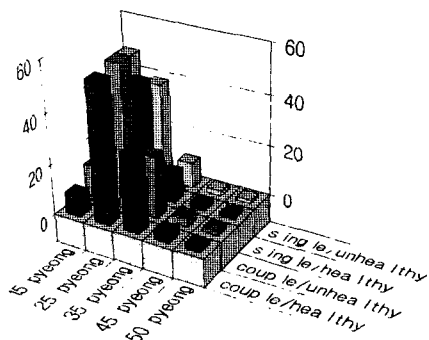<Fig. 5-1> Preference on the location of the planned elderly housing

<Fig. 5-2> Subjects background influenced on Preference of the loation of the planned elderly housing in each situation

→ : Significant (P<.05) when x^2-test was used

The proportion of female respondents who wanted to live in urban areas was larger than male respondents. And respondents providing for old age preferred suburb areas more than the other groups. In the case of the elderly couple/unhealthy, it showed significant differences according to subjects income(p<.01), and providing for old age(p<.01). The higher their income, the more they live in suburb areas. And respondents who provide for old age preferred suburb areas than the other groups. In the case of the elderly living alone/healthy, preference for location varied according to sex(p<.05), education(p<.05), and housing type(p<.01). The proportion of male or the higher education wanted to live in suburbs areas more than the other groups. The preference in location differed according to the housing type; the group who lived in apartments more likely wanted to live in urban areas. For the elderly living alone/unhealthy group age(p<.05), housing type(p<.05) and providing for old age(p<.01) were also important variables. The younger their age, the more respondents preferred suburb areas. The group who lived in detached housing wanted to live in rural or suburb area. And respondents who prepare for their retirement preferred suburb areas.
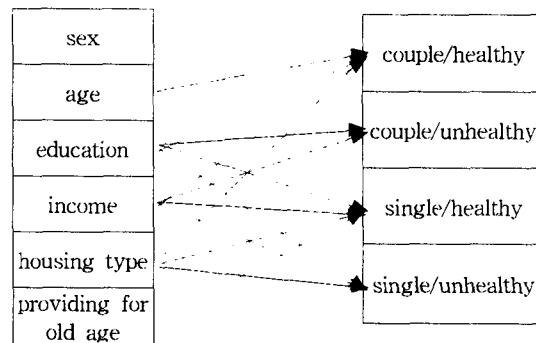
3-3. Preference for the elderly housing size

In terms of the optimal size of housing, in case of elderly couple over 50% of subjects preferred around 25pyeong(75sq. yard) regardless of health condition<Fig.6-1>. However 47.7% of the living alone/unhealthy group were happy with living space of around 15pyeong(60sq. yard). This shows that situational changes affect the preferred size of planned housing.

In the case of the elderly couple/healthy, there was differences in the housing size according to age(p<.05), education(p<.001), income(p<.001) and housing type (p<.05) <Fig.6-2>.

sex
age
education
income
housing type
providing for old age

couple/healthy
couple/unhealthy
single/healthy
single/unhealthy

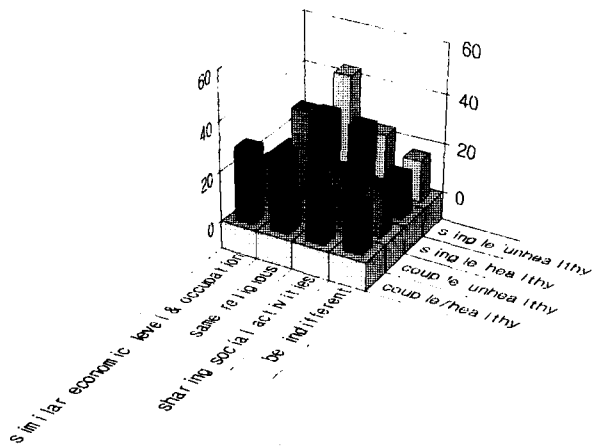<Fig. 6-1> Preference on the size of the planned elderly housing unit

<Fig. 6-2> Subjects background influenced on Preference of the size of the planned elderly housing unit in each situation

→ : Significant (P<.05) when x^2-test was used

The younger or the lower the education, the more respondents preferred larger housing. The higher their income, the more the respondents preferred larger housing. The ratio of respondents who preferred smaller housing was higher among the participants who lived in a detached house than among those who lived in an apartment. In the case of the elderly couple/unhealthy, there were significant differences in the preferred size according to education($p<.001$) and income($p<.001$). That is the lower the degree of education or income, the more respondents preferred smaller housing. In the case of the elderly living alone/healthy, these group results varied according to education($p<.001$), income($p<.001$), housing type($p<.01$) and providing for old age($p<.05$). And In the case of the elderly living alone/unhealthy, there was significant differences according to education($p<.01$), income($p<.001$) and housing type($p<.05$). The respondents with higher education and income preferred bigger housing. The ratio of respondents who preferred smaller housing was higher among the participants who lived in a detached house. And respondents who providing for old age preferred larger one.
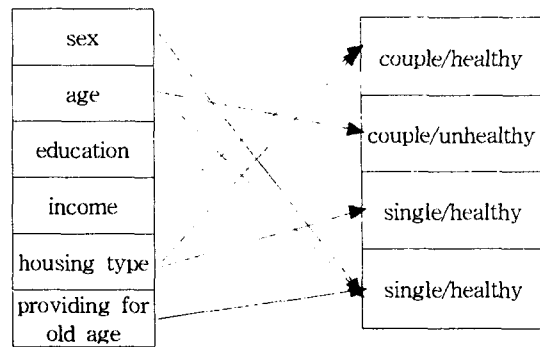
3-4. Preference for the neighborhood

In terms of neighborhood, the ratio of preference for "same-religion" was high<Fig.7-1>. And in the case of couple/healthy, 29.5% said that people having similar economic level and occupation preferred to be in the same neighborhood. As for the elderly couple/unhealthy, 21.8% said that sharing social activities were important, in the situation of the living alone/healthy, 32.6% said that sharing social activities was important, and among the living alone/unhealthy group, 23.8% agreed that sharing social activities was a key factor. Poor people regarded friendship as more valuable.

Amongst the elderly couple/healthy group, there were significant differences according to income($p<.001$) and housing type($p<.05$)<Fig.7-2>.

<Fig. 7-1> Preference on the neighbor of the planned elderly housing

<Fig. 7-2> Subjects background influenced on Preference of the neighbor of the planned elderly housing in each situatio

→ : Significant (P<.05) when x^2-test was used

The group who live in detached housing preferred those who have the same religion or occupation. And the lower their income, the more respondents preferred who have the same religion or occupation. In the couple/unhealthy case they had variation relating to age(p<.05). Younger respondents preferred neighborhood who have the same occupation. In the case of the elderly living alone/healthy, there were significant differences as to housing type(p<05). The group who lives in an apartment preferred those who have the same religion or share the same social activities. As for the elderly living alone/unhealthy, there were significant variations according to sex(p<.05), age(p<.05) and providing for old age(p<.05). The female and the older respondents preferred neighborhood who have the same religion. And respondents preparing for their retirement, preferred who have the same religion.

V. Conclusion

It showed the tendency that when the couple are alive and health together subjects wanted housing for independent life. But when they became single or unhealthy, it showed the tendency of dependency on sons or daughters, especially first son.

If the couple are healthy, they prefer to live in the present housing, but if they become single or unhealthy, they prefer to move to planned housing for the elderly. Concerning about the planned housing for the elderly, they want totally independent housing when they are healthy and can keep independent life, but if they become unhealthy, they want half-protective housing for the medical service, and special facility. If they live in the planned elderly housing, they want the size of 100-200sq. yard when they are both and healthy, but they want the size of 60 sq. yard when they become single and unhealthy. They prefer to live near the city. When they are couple and healthy, they want to live near the city or suburbs, but when they became single they want to live urban area or downtown. On the basis of the analysis, conclusion on the planning of elderly housing environment were as follows:

First, the preferred housing characteristics appeared to show a wide range according to the situation and subject's backgrounds. Therefore, the elderly need to be

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regarded not as a homogeneous subgroup but as a heterogeneous one. Therefore senior housing priorities must be assessed on an individual basis.

Second, regardless of the situational conditions, the ratio of respondents who want to live in the present housing as well as keep living independently is high. Therefore, proper planning of retirement housing is essential to maintain independent life styles among seniors as long as possible. At the same time, we need to develop an improved renovation program so that existing housing becomes more accessible for the elderly. Community care services are also required.

Third, suburbs are the most preferred as the location for senior housing. However, the matter of living with the children or not, and the distance from them showed statistical differences according to the individual situations. So, when the elderly housing is developed, a zone of kid's life and an existing zone of life need to be considered.

Fourth, the preferred size of senior housing units are around 15-25pyeong(60-75 sq. yard) according to the situational variables. Thus different types of housing units should be developed within these parameters.

Fifth, when this housing is built, preferred neighborhood was tabulated in accordance with same religion, occupation, and social activities or similar economic level. These findings can be interpreted as proof that the majority of seniors want to live with those who are most familiar to them in their community. Therefore when retirement housing is built, it should be not only composed of those having similar backgrounds in the same neighborhood, but should also be developed in order to maximize social interaction within a friendly senior community.

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