

Relationship between Lifestyles, Functional Capacity and Related health factors in the community-dwelling Elderly

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Introduction

Increasing attention has been focused on the quality rather than the quantity of survival, and so the question now is whether a longer life expectancy implies a longer active life. If the long life expectancy among the Japanese is accompanied by only a longer duration to be spent with disability, such longevity would not be fully rewarding.

Lifestyles are one measurement to evaluate the health and functional status of elderly individuals¹⁾. There have been several longitudinal studies showing that lifestyles are related to the health and functional status²⁾³⁾⁴⁾. Identification of factors influencing lifestyles is important in the light of the growing proportion of the elderly population. However, longitudinal studies showing correlates of lifestyles changes based on the community elderly people have been scanty⁵⁾.

This study investigated the relationships among lifestyles, functional capacity that influence self-reliance.

Methods

This study area is Saga prefecture it called for participation in this survey by sending the outline explanation and the invitation to elderly of 65 years who were visited to Saga community halls 2014. The remaining 128 were invited to participate in the survey held at community halls. After signing informed consent forms.

Lifestyle Scale is from which reliability and valid-

ity has already been confirmed as a questionnaire method by the standard by which various ADL is evaluated from respect of basic motor ability of 22 items⁶⁾ (Table 1).

Functional capacity consisted of the following 13 items used in the Index of competence⁷⁾. We used the two right or wrong of one point zero point to evaluate from response options of each question and summed up the total scores. A perfect score was 13 points.

The subjects were divided into family structure, the history of falls, elderly and an unpaired t-test of lifestyles, functional capacity was performed between the 2 groups.

To investigate relationship among the factors, correlations were analyzed between the difference lifestyles Scale and functional capacity.

The level of significance was set at $p < 0.05$. Statistical analyses were performed using Stat View 5.0 for Windows.

RESULTS

Passage rate of all lifestyles scale (the ratio of respondents said "Yes") is the lowest at Question NO.5 (26.6%).

Passage rate was high as opposed to Question NO.20 (89.1%) (Table 1). Among the survey item got not a significant difference in between lifestyles scale and family structure, the history of falls ($p = 0.09 \sim 0.97$) (Table 2). Social and psychological lifestyles scale of younger elderly group got a significant higher than

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Table 1 Lifestyle Questionnaire

item	factor	Passage rate (%)
1 Do you want to participate in the events, activities and things to neighborhood association?		64.8
2 Do you participate in Beautification activities (rivers, beach)?	Society	52.3
3 Do you have something a facilitator in the village?		56.3
4 Do you have a hobby?		82.0
5 Are you sure that you want to participate in the volunteer ?		26.6
6 Are you sure you want to the neighborhood Zukiai ?		84.4
7 Are you sure that you want to participate in the golden age club ?		62.5
8 Does it work the (housework, field, etc.) ?		82.8
9 Are you eager to faith and family altar events ?		84.4
10 Do you have that you do not fret ?	Psychology	79.7
11 Do you have to try something ?		47.7
12 Do you have to think bright ?		85.9
13 Do you have dreams and goals ?		64.8
14 Do you have that you do not get frustrated ?		77.3
15 Do you have a light exercise, such as gardening ?		85.9
16 Are you in the not too take salt ?	Physical	77.3
17 Do you have a walk and gymnastics ?		75.0
18 Do you try to keep early hours ?		71.1
19 Do you refrain from fat and eat the meat ?		73.4
20 Do you have received health diagnosis ?		89.1
21 Do you exercise and sports ?		53.9
22 Do you refrain from snacking ?		73.4

Table 2 Comparison of lifestyle scores and attributes (mean \pm standard deviation)

Category (number of cases)	Lifestyle scale			
	Society	Psychology	Physical	Overall
Factor				
Younger elderly Group (30)	5.7 \pm 1.8	4.8 \pm 1.1	6.6 \pm 1.1	7.5 \pm 1.3
Age				
older elderly group (98)	4.9 \pm 2.1	4.2 \pm 1.4	5.8 \pm 1.6	4.9 \pm 1.7
Family structure				
More than one person (97)	4.9 \pm 2.0	4.3 \pm 1.4	5.9 \pm 1.5	5.0 \pm 1.6
Solitude (31)	5.8 \pm 2.3	4.3 \pm 1.2	6.1 \pm 1.4	5.4 \pm 1.6
yes (45)	4.9 \pm 2.0	4.1 \pm 1.4	5.7 \pm 1.7	4.9 \pm 1.7
History of falls				
no (83)	5.1 \pm 2.1	4.4 \pm 1.3	6.1 \pm 1.4	5.2 \pm 1.6

*p<0.05 **p<0.01, t test

Table 3 Correlation of lifestyle scale and functional capacity (n=128)

	Functional capacity		
	Insuteumental independence	Intellectual activity	Social role
Society	0.53	**	0.52
Psychology	0.24	*	0.47
Physical	0.29	*	0.22

*p<0.05, **p<0.01

older elderly group (p<0.01) (Table 2). In the relationship between lifestyles and functional capacity got a significant correlation in 3 scale of lifestyles and 3 scale of functional capacity (p<0.05~0.01) (Table 3).

Discussion

We examined the passage rate of the three lifestyles scale in Saga. Our results was 26.6–84.4% in the social lifestyle, 47.7–85.9% in the psychological lifestyle, 53.9–89.1% in the physical lifestyle. Miyabara sug-

gested that the passage rate of social, psychological, and physical lifestyle⁸⁾ was 28.4–68.1% 31.9–64.7% in Kagoshima prefecture.

The study indicated that the three lifestyles scale was not a significant in the family structure and the history of falls. The elderly subjects were not a significant in the family structure and the history of falls. The elderly subjects were those who could participate themselves in the community activities and were thought to be relatively healthier elderly groups.

Lifestyle scale of younger elderly group showed significantly higher than older elderly group. Haga et al reported that the average score of physical, psychological, social lifestyle had shown a tendency to decrease in the elderly from longitudinal survey of the elderly of Okinawa resident³⁾. This study had considered to be a reasonable outcome as lower score of physical, psychological, social in older elderly group body.

In the relationship between lifestyles and functional capacity got a significant correlation in 3 scale of lifestyles and 3 scale of functional capacity. Imuta et al. reported that it was a bad general health sense of the physical item as a predictor of the degree of autonomy changes in the independence the elderly, in the social item reported that low daily activities was associated with a degree of autonomy decline there¹⁰⁾. Longitudinal study on the lifestyle of Okinawa Prefecture, N Village resident of the elderly, the results of analyzing the relationship between longitudinal change and the change of lifestyle score of life function, lowering of social lifestyle score group, compared to the maintenance group, have reported that indicated that reduction of the life function is large³⁾.

For these reasons, high degree of autonomy the elderly, it is considered that in many cases you are wearing a healthy lifestyle.

Reliability coefficient by internal consistency in the prior study (α) is 0.89, indicates that the high of this measure, in order to verify the criterion-related validity, the presence or absence of a subjective sense of well as external criteria lifestyle, as a result of comparing the scores of the old Institute type indicators, the score of the person who is "not healthy" for both

measures was significantly lower than the score of the person who is "in good health", reflecting the healthy state¹⁰⁾. Lifestyle, showed that is trusted as a measure of the Competence of the elderly.

It is possible to investigate the lifestyle from these become the independence of the indicators of the elderly, high elderly people lifestyle, is considered to be associated with the acquisition and maintenance Successful Aging.

Life style and life function obtained in the present study, a causal relationship from cross-sectional study is the relationship between the social attribute can not be proven. In the future the proof of them by the longitudinal study, comprehensive manner captured by the causal model the physical, psychological and social factors, with plans to quantitatively clarified the strength of the impact and influence direction between the factor is there.

Conclusion

These suggest that efforts to maintain lifestyle, functional capacity might be useful to maintain active self-reliance in the elderly.

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