Original

Factors Influencing the Vitality of Elderly Women Undergoing Long-term Medical Treatment

Hiroyuki Hyodo[1], Kouici Murata[1], Shoko Murata[2],
Junichi Kurokawa[1] and Ryoichi Inaba[1]

[1]Department of Occupational Health, Gifu University Graduate School of Medicine

[2]Special Nursing Homes for the Elderly, Second Graceful Kasugai

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Abstract

Objectives: The purpose of the case study is to investigate and examine the factors influencing the vitality of elderly women residing at long-term treatment facilities by dividing them into two groups: vitality and non-vitality.

Methods: Sixty-seven women who spent more than three months at such facilities cooperated in this study. Through personal interviews and a survey, we studied the vitality, frequency of visits, medical conditions, and lifestyle histories.

Results: A significant difference between the two groups was observed in 3 out of the 13 items. Work experience ($p<0.05$) and having hobbies at the treatment facilities ($p<0.01$) were recognized as important positive influences. Furthermore, it was recognized that those with high vitality could be satisfied ($p<0.01$) even when the frequency of visits was lower than they expected.

Conclusions: It was confirmed that the frequency of visits was too low for them; however, other factors might be important to enable elderly people to lead more vitalized lives. These factors include mental support through visits, implementing programs to improve vitality based on their sense of values, and social system infrastructure to support these necessities.

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—Key words—
Vitality, Visits, Work experience

Introduction

In 1999, the Japanese Ministry of Health, Labor and Welfare developed the Senior Citizen Health Welfare Program (Gold Plan 21)[1] for the coming aging society. The most fundamental objective of the program is the "Construction of an image of a senior citizen with vitality." It aims to erase the traditional perception of "an elderly person as a weak person" in order to provide satisfactory support to elderly people to stay healthy and participate confidently in society. Moreover, it seeks to establish an image of a senior citizen with vitality through the support of the whole society.

However, the connotations of the word "vitality" can be different depending on those who are healthy and those who have to undergo long-term medical treatment due to diseases and physical disabilities. The present conditions of the National Welfare Policy for the elderly people lacks a uniform and clear viewpoint: What type of support would be effective for those who are undergoing long-term treatment, and what is the concrete view toward the quality of life (QOL)?

When the social support system lacks a definite direction, there could be an unprecedented change in the QOL for older persons when they are relocated from their homes to a medical treatment institution. The social conditions for enhancing the QOL are as follows: (a) to provide support to elderly persons to live confidently in

Table 1 Classification of subject' disease

Disease	(N = 67)
Cerebral apoplexy	38
Hypertension	1
Heart disease	6
Parkinsonian syndrome	4
Diabetes mellitus	6
Posttraumatic disorder	3
Kidney disease	1
Liver disease	1
Other	7

society,(b) to promote a wide variety of opportunities for elderly persons and enable them to make decisions independently, (c) to support their self independence, and (d) to promote their interaction with society and prevent them from being isolated[2].

We conducted research on the reasons for the difference in vitality among elderly females who are undergoing long-term treatment, and studied the effective direction for supporting the treatment institutions for older persons and improving their QOL.

Additionally, in this thesis, vitality is defined in terms of the condition having the vitality, enthusiasm and/or endurance needed to live an everyday life[3].

Method

Participants

The average age of the 67 female participants who were staying at medical treatment facilities for over three months was 85.4 ± 7.3 years. Thirty-eight women (56.7%) suffered from the aftereffects of the cerebral apoplexy, as shown in Table 1. The average duration of their stay at the facilities was 17.5 ± 15.1 months. All of them cleared the benchmark of the revised version of Hasegawa' s Dementia Scale (HDS-R)[4].

Procedure

Through personal interviews and a survey, we studied the vitality, frequency of visits, medical conditions, and lifestyle histories of 67 people. Using the item "vitality and fatigue" from WHO/QOL-26[3], vitality measurement was conducted along five phases of standards.

The contents of the investigation were as follows: age, vitality measurement, requested number of visits, number of actual visits, duration of stay at the facility, satisfaction with the frequency of visits, request for visits, having visitors they wish to meet, having a spouse, having hobbies at the treatment facilities, participating in recreational activities, having work experience, and having food by mouth.

Analysis

Those who answered "very good" and "comparatively good" to the question on "vitality and fatigue"—"Do you have vitality to lead each day?" taken from (WHO/QOL-26)[3]—were categorized under the vitality group. Those who answered "very bad" and "comparatively bad" were categorized under the non-vitality group. We compared the difference between the two groups. We used a *t*-test and Fisher's exact test to calculate the significant difference between the vitality and non-vitality groups for each test item. We concluded that there was a significant difference, $p < 0.05$. We used SPSS ver.11.0 for all analyses.

Ethical Committee

In this study, only the persons whose agreements were obtained were surveyed, after explaining the research outline, that the research is conducted on voluntary and anonymous basis, and that the individual information is not specified because the response contents are statistically processed.

Result

Comparison of the vitality group and non-vitality group

Regarding the frequency of requested number of visits, the results were 2.8 ± 2.6 times per week for the vitality group and 4.0 ± 2.6 times per week for the non-vitality group. Moreover, the frequency of the number of actual visits was 2.3 ± 2.3 times per week for the vitality group and 3.1 ± 2.7 times per week for the non-vitality group. This shows that there was little significant difference between the two groups; however, the results of the non-vitality group exceeded those of the vitality group both in the frequency of requested number of visits" and "number of actual visits"(Table 2). In the item "request for visits," which implies that the elderly people at the medical treatment facilities want their families to visit them, there was little significant difference between the vitality group (33.3%) and non-vitality group (44%). However, the results of the non-vitality group

Table 2 Results of the investigation

	Vitality Group (N = 36) Mean ± SD		Non-Vitality Group (N = 25) Mean ± SD		p-value (t-test)
Age	85.3 ± 7.5	(68－99)	86.1 ± 6.8	(75－98)	0.668
Vitality measurement	4.6 ± 0.4	(4－5)	1.4 ± 0.5	(1－2)	
Requested number of visits	2.8 ± 2.6	(0－7)	4.0 ± 2.6	(1－7)	0.103
Number of actual visits	2.3 ± 2.3	(0－7)	3.1 ± 2.7	(0－7)	0.240
Term of stay	17.4 ± 15.6	(3－60)	17.2 ± 15.5	(3－48)	0.968

Significant differences between the two groups.
Ranges are shown in the parenthesis.

Table 3 Characteristics of both Vitality Group and Non-Vitality Group

	Vitality Group (N = 36) N = (%)	Non-Vitality Group (N = 25) N = (%)	*p*-value (Fisher's test)
Satisfies with the frequency of visits**	30 (83.3%)	10 (40.0%)	0.001
Request for actual visits	12 (33.3%)	11 (44.0%)	0.432
Having visitors they wish to meet	30 (83.3%)	21 (84.0%)	1.000
Have a spouse	7 (19.4%)	3 (12.0%)	0.505
Have something to do for fun in your facility **	18 (50.0%)	3 (12.0%)	0.003
Join recreational activities in the facility	16 (44.4%)	9 (36.0%)	0.601
Employed *	29 (80.5%)	12 (48.0%)	0.012
Oral intake	34 (94.4%)	20 (80.0%)	0.112

Significant differences between the two groups : $*p < 0.05$, $**p < 0.01$.

exceeded those of the vitality group. Regarding the item "satisfaction with the frequency of visits," 83.3% of the vitality group was satisfied, while only 40% of the non-vitality group was satisfied even if the actual frequency of visits for the non-vitality group exceeded that for the vitality group.

Regarding the item "having visitors they wish to meet," 83.3% of the vitality group and 84% of the non-vitality group answered "yes," and a majority of them replied that you wished to meet their families. Regarding the item "having a spouse," the results revealed a low percentage of 19.4% for the vitality group and 12% for the non-vitality group.

Regarding the item "having food by mouth," there was little difference between the two groups: 94.4% for the vitality group and 80% for the non-vitality group. In this case, the results of the vitality group exceeded those of the non-vitality group.

Difference between the vitality and non-vitality groups

Regarding the item "do you have vitality to lead each day?" 36 participants in the vitality group replied with "very much" or "comparatively much," and 25 participants from the non-vitality group replied "very bad" or "comparatively bad." The remaining six participants replied "average" and "neither." The average value of vitality for the vitality group was 4.6 ± 0.4, while that for the non-vitality group was 1.4 ± 0.5.

We used the Fisher's exact test for the remaining 12 items. The items revealed a significant difference, $p < 0.01$, with regard to the "satisfaction with the frequency of visits" and "having hobbies in the treatment facilities." Further, one item, "having work experience" showed a significant difference, $p < 0.05$ (Table 3).

Discussion

Relationship between vitality and the number of actual visits with the people at the medical treatment facilities

In this study, there was little significant difference between the vitality and non-vitality groups regarding the item "number of actual visits," while there was a significant difference ($p < 0.01$) regarding the item "satisfaction with the frequency of visits." Hence, we attempted to examine if there was any difference in reaction to actual visits and if the difference had affected the results.

According to a public opinion poll[5] on the living and working conditions for women conducted by the Prime Minister's Office, 53.6% of the respondents stated that the most important factor required for a family was "the emotion of spiritual contentment." According to a public opinion poll[6] on the issues faced by elderly men, the response "I do not want to enter a senior nursing home" was obtained from the highest number of respondents (69%). The primary reason stated by 34.6% of the respondents was "I do not want to live away from my children and grandchildren." One of the means to improve the QOL of older persons is to maintain their living conditions and not isolate them from society, as mentioned above[2]. This implies that living at medical treatment facilities can affect the mental health and QOL of elderly persons because they are in an environment where they are isolated from their family and society. It would mean that for those who generally live apart from their family, the visits are one of the most important opportunities to spend time with their family. Therefore, it was predicted that the number of actual visits could be the positive element for vitality and influence the vitality of the participants we studied. However, the result showed that there was little significant relationship to indicate that a higher frequency of visits would result in higher vitality.

Regarding the item "request for visits," 33.3% of the vitality group and 44% of the non-vitality group requested for visits. This indicates that the reason the number of actual visits with the non-vitality group exceeded that of those with the vitality group could be the stronger demand for actual visits by the non-vitality group, even if there was little significant difference with respect to the number of actual visits. In reality, the number of actual visits is lower than the requested number of visits in both groups.

The important point here was that 83.3% of the vitality group and 40% of the non-vitality group were satisfied with the number of frequency. The result indicates that it would be difficult to conclude that a higher the number of actual visits would improve their vitality. This implies that the vitality group can be satisfied with the present conditions even if the number of actual visits is not higher than they would have expected; however, this is not true of the non-vitality group. There can be a difference in reaction to the number of actual visits depending on the level of vitality of each participant.

Relationship between the vitality of the people at the medical treatment facilities and their work experience

The item "having work experience" revealed a significant difference, ($p < 0.05$), as one of the factors among the vitality and non-vitality groups. Participants with work experience constituted 80.5% of the vitality group and 48% of the non-vitality group. This implies that work experience could have influenced the vitality of the participants. As shown below, we considered work experience to be a factor for vitality.

According to the Protracted-life society development center[7], 57.4% of the respondents chose work/company as "a place that provides vitality to life" (Two answers can be selected). In addition, in the category "a subject that provides meaning to life," 41.4% chose work (Three answers can be selected). The result shows that work cannot only provide financial benefits but also vitality and meaning to life. In addition, according to the Japanese Home Economists In Business Meeting[8], 56.3% of the women believe that improving themselves is the most important factor, followed by wishing to be connected to society and being financially independent. On the other hand, 86.2% of the men believe that economic considerations such as maintaining living conditions are the most important factor, followed by improving themselves through work and considering it common sense to work. The result shows that for men, the motivation to work is maintaining their living conditions, while for women, it is improving themselves, for instance, through self-realization. In other words, women perceive high vitality as a motivation to work. The reason that women with work experience have higher vitality could be that they have acquired experience in a company or an office. Such environments provide them with vitality, and hence, they have higher motivation to improve themselves.

Next, we conducted research on the vitality of full-time housewives. Nagahisa reported: The mood of the people is defined as feelings to last for a long term.

The full-time housewives have remarkably negative perspective on life, particularly toward living and daily life, as compared to that of housewives with work experience. Full-time housewives derive a feeling of security from their children when they consider their old age[9]. This implies that the conditions faced by full-time housewives are such that their vitality begins to decrease much before they get older. Moreover, it indicates

that they are mentally dependent on their children in their old age. The participants in this research are completely dependent on the facility staff for the performance of most of their daily activities. Therefore, it can be stated that full-time housewives who have been dependent on others for a long duration after entering the facilities have lost their vitality.

The research indicates that the vitality group maintains its vitality to a greater extent even after entering the facilities. This is because they have had an opportunity to develop their vitality through work experience and also by shaping a mentality to improve themselves.

Relationship between the vitality of the people at the medical treatment facilities and their hobbies

Regarding the hobbies, there was little significant difference between the vitality and non-vitality groups with respect to the item "participating in recreational activities." There was a significant difference in the item "having hobbies at the medical treatment facilities," $p<0.05$.

In this study, 50% of the vitality group and 12% of the non-vitality group had hobbies that they could enjoy at the facilities. It is believed that there can be a significant difference in the vitality of elderly persons if they have hobbies that they can enjoy at the facilities. We now explain the research we conducted in order to examine how the hobbies could be a factor for vitality.

Recreation programs are developed as leisure activities in many medical facilities for senior citizens. For those in hospitals for older persons, it is possible to participate in recreation programs with the aim (a) of maintaining their healthy conditions, (b) avoiding a solitary life by living with their friends and staying active, (c) being acknowledged by others, and (d) attaining their ideals and dreams[10]. Thus, recreation at the facilities does not only imply leisure activities; more importantly, it involves maintaining the physical and mental functions of the residents.

Recreation can help elderly persons maintain their physical and mental functions. However, in the investigation we conducted, there was little significant difference between the vitality and the non-vitality groups with regard to regard the item "participating in the recreational activities." According to the result of the investigation by Uji City on Senior Citizen Health and Welfare Planning, it was reported that recreational services at the facilities provide less satisfaction than other types of services[11]. It was also reported that those who were using medical and welfare services could be socially vulnerable and would not have access to the services that they actually wanted[12]. Therefore, recreational services were organized based on the convenience of the facilities, resulting in the neglect of the users' needs. On the other hand, regarding hobbies as one of the leisure activities, the Protracted-life Society Development Center reported that 48% of those who were around the retirement age and were working replied that they would chose hobbies to add meaning to their life[13] (multiplex answer to 3).

A factor for increasing the QOL is "maintaining support for a meaningful life[2]," and hobbies possibly increase the QOL. In a study on the motivational factors of middle-aged and married women, those with more experience of intrinsic motivation (substantial) and less experience of extrinsic motivation (duty, compulsion) would be happier and more active[14]. It can be stated that those living at medical treatment facilities have a similar tendency.

With regard to the recreational activities conducted at medical treatment institutions, it is appropriate for them to be carried out under the given circumstances and according to the institutions' convenience. It cannot always be stated that the activities are conducted with the interests and disposition of the residents of the facilities as objectives. On the other hand, the hobby activities are organized based on the interests and disposition of the residents. This fulfills the condition for increasing the QOL—"providing abundant choice and promoting the right to independence[2]." Recreational activities conducted by the facilities did not provide an abundant choice and the right to independence, while hobby activities, being positive and spontaneous, provided them. It indicates that hobby activities at medical treatment facilities can be a factor for vitality and improving the QOL of the participants (those living at medical treatment facilities.).

The requirements to develop an environment conducive to leisure activities are conducting recreational activities based on each individual's mentality in the form of programs for improving the vitality of senior citizens living at medical treatment facilities and administrative action leading to and supporting such facilities.

Conclusion

The results of this investigation did not prove that a higher number of actual visits would have a more positive influence on vitality. The factor of vitality in the case of older persons living at medical treatment facilities must be closely related to the lifestyle that implicitly influences their personality and also to the environment in which they were living at the facilities. It was implied that the factor of vitality and the QOL have a close relationship: the QOL can be improved by improving vitality. Mental support by the families and facility staff after the elderly persons enter the facilities, conducting programs for improving the vitality of elderly persons based on their values, providing instructions on lifestyle in order to improve their vitality much before they enter the medical treatment facilities including social infrastructure, and constructing a basic social support system. Next, we wish to proceed with the study through a gender-based comparison and research on the vitality of men who are residing at long-term medical treatment facilities.

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Reprint request:
Hiroyuki Hyodo
Department of Occupational Health, Gifu University Graduate School of Medicine, 1-1, Yanagido, Gifu City, 501-1194, Japan.

別刷請求先 〒501-1194 岐阜市柳戸 1—1
岐阜大学大学院医学系研究科産業衛生学分野
兵藤 博行

長期療養生活を送る女性高齢者の活力におよぼす要因

兵藤　博行[1)]，村田　公一[1)]，村田　晶子[2)]
黒川　淳一[1)]，井奈波良一[1)]
[1)]岐阜大学大学院医学系研究科産業衛生学分野
[2)]特別養護老人ホーム第２グレイスフル春日井

―キーワード―
活力，面会，就労経験

目的：長期療養生活を送っている女性高齢者の活力におよぼす要因を調べるために母集団を活力群と非活力群に分け調査・検討することである．

方法：3カ月以上の長期療養生活を送っている67名の女性高齢者を対象に活力に影響をおよぼす要因と考えられる生活歴，面会状況そして入所生活状況に関するアンケート調査を実施した．

結果：活力群と非活力群の間では12項目中3項目で有意差が認められた．活力にポジティブな影響をおよぼしているのは，就労経験があること（P＜0.05），療養施設内で行える趣味を有していること（P＜0.01）が重要であった．更に，活力が高ければ希望面会数が満たされていなくても現状の面会数に満足すること（P＜0.01）ができることが示唆された．

結論：高齢者が活力ある療養生活を送るためには，単に面会の数といった単純な要因だけでなく，面会を通じての精神的サポートや高齢者の価値観に基づいた活力支援プログラムの実践，更にそれらを支援する社会的基盤の構築が重要であると考えられた．

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