The New Elder Citizen Movement in Japan

Faces and Masks of Aging in Japan: Implications from the Lives of Japanese Elderly

Nobutaka DOBA¹⁾

Haruo YANAI²⁾

Keiichiro SAIKI³⁾

Hirofumi TAKAGI⁴⁾

Mari TSURUWAKA⁵⁾

Masumi HIRANO¹⁾

Hiroyoshi MATSUBARA¹⁾ Shigeaki HINOHARA¹⁾

Background

Most of developed and even in developing countries throughout the world have been facing the reality of a population ageing that has progressed more rapidly than ever expectedly. In Japan, total population has already been starting to decline, although the senior population aged 65 years or more has been still increasing and it will hit 27.8% of the total population in 2025. This is the fastest speed in aging observed throughout the world.

The rapidly increasing number of elderly throughout the world might represent a biological success for humanity, if their health state would be fulfilled with total physical, mental and social well-being, and major disabilities would be largely compressed into a narrow age range just prior to death, like compression in scenario II. Throughout history, the fact that the human race is characterized by a long childhood and by a long old age has enabled the elderly to educate the younger and to pass on values to them. This role of the elderly has ensured man's survival and progress as stated in international plan of action on ageing of UN recommendations (2003) 1).

In this sense, all efforts aimed at benefiting the elderly have to be directed to satisfy the need for personal fulfillment realized through the achieve-

ment of personal goals and aspirations, and the realization of potentialities. It is, therefore, important that policies and programmes directed to the elderly promote opportunities for selfexpression in a variety of roles challenging to themselves and contributory to family and community. The principal ways in which the elderly finds personal satisfaction are through: ①continued participation in the family and kinship system, 2 voluntary services to the community, 3 continuing growth through formal and informal learning, @self-expression in arts and crafts. 5 participation in community organizations of the elderly, 6 religious activities, 7 recreation and travel, Spart-time work, and Sparticipation in the political process as informed citizens.

Concept of "New Elder Citizen" at the Life Planning Center

The Life Planning Center is a nonprofit foundation established in 1973 by Dr. Shegeaki Hinohara, the chairperson of the board at the LPC and also the honorary director of St. Luke's International Hospital, Tokyo aiming to promote health related QOL of adult populations through holistic and comprehensive strategies for the lifestyle modification mainly based on health education, as shown in Table 1.

- 1) Life Planning Center
- 2) Research Division of National Center for Entrance Examination
- 3) Oita Prefectural University of Nursing and Health
- 4) Department of Nursing, Faculty of Medicine, Niigata University
- 5) Advanced Research Center for Human Sciences, Waseda University

Table 1. What the life planning center signifles

- The Life Planning Center was established in 1973 as a non-profit foundation authorized by the Ministry and Welfare of Japan.
- Objectives of this Foundation are:
 - ① To enable individuals to understand and realize the principal components of what continues "health".
 - ② To encourage individual's awareness for the maintenance of health both in mind and body.
 ③ To assist and guide lay people for their practicing health by improving their lifestyle.

This time, in September 2000, he launched a senior citizens' group to help inspire seniors aged 75 years or older to maintain or enhance their healthiness and activities. This is a group for elderly people who may have chronic illnesses and/or age-related physical problems, but are mentally alert, living independently and having excellent spirituality in their daily lives. The group is named "The Society of the New Elder Citizens" and as of May 2005, it has a membership of 3,600 seniors throughout Japan including a few foreigners. There are 10 local chapters distributed from the northern part, Hokkaido, to southern part, Kyushu, and these local chapters have individually developed and promoted their own programmes based on their local needs under a well organized central control.

Dr. Hinohara has developed following three themes to be used as guidelines for these members and chapters; 10 to love, 20 to initiate and 3) to endure. Dr. Hinohara has also showed following 5 practices to all who would aspire to being a New Elder Citizen: 1 to acquire a favorable life style. 2 to keep an active relationship with the society, maintaining close ties of friendship regardless of gender, race or generation. 3 to possess hope and faith, with strength and power to endure any difficulties and disasters which we may encounter, with an indomitable spirit. This spirit will arouse deep sympathy for others, and extend comfort to people who have lost hope in life. (4) to remember to keep a feeling of loving care for others and gratitude for our daily life. 5 to be aware that it is never too late to

Table 2. Circle Activities in the Society of New Elder
Citizen

- Haiku ; a Japanese poem of seventeen syllables
- personal computer
- **■** tennis
- chorus
- softball (slow pitched)
- lively talk
- listening to classic music
- recitation of a Chinese poem
- mountaineering
- flower arrangement

- art of calligraphy
- narration
- English talk
- enjoyable mathematics
- positive thinking talk
- historic cite visits
- perspective talk in the era of globalization
- hula dance
- ski
- healthy breathing

talk companies, cross generational companies

initiate or create something even in the day of old age.

In Tokyo metropolitan area, there are around 1,500 members living, for whom we have been providing various kinds of social activity classes based on their needs. Each activity class is organized and managed by members themselves with the steering committee system. Red ones are related to talk and green ones are partly related to cross generational activities with school children as shown in Table 2.

Among them, there are elders who are deeply interested in health maintenance and promotion, and would like to be involved in medical research projects that is oriented to study the ageing process and related disorders in comprehensive sectors including not only physical, but also psychosocial aspects. We call these New Elder Citizens as Health Research Volunteers (HRV) and I myself have been most deeply involved in this research projects as a medical doctor, since 2002.

Studies on the cohort of Health Research Volunteer (HRV)

Here, I will shortly summarize the results that have been obtained so far.

1) Objectives and designs of the study

The New Elder Citizens are the selected special cohort that might be quite different from ordinary elders in the aspects of physical state and

psychosocial behaviors. Therefore, it must be meaningful, if we are able to specify this cohort with already established scientific measures. And also, we are very anxious to know how these people will face to their end of the life issues with having physical and/or psychosocial problems. Through these observations and interventions, if possible, we might be able to develop effective ways to support difficulties of elders in various situations in the next successive generations. We started this project in November 2002, and by the end of March 2004, we examined 319 elders with written informed consent. This cohort will be followed-up for 5 years at least and 10 years, if possible. Since May 2005, we have just started to increase the number of this cohort up to 500 cases and this will be accomplished within a year.

Subjects consisted of 153 males $(78\pm4y/o)$ and 166 females $(78\pm4y/o)$. We performed series of battery tests including personal health history obtained from comprehensively structured questionnaires, assessment of depression and mental state, routine medical physical examination, morphological and functional evaluations of the musculoskeletal system, functional tests for muscular forces, metabolism, walking and balancing abilities, cardiovascular states, and blood tests including hematology, blood chemistry and selected hormones and cytokines, as well as genomic evaluations. This study will be ended after 5 years follow-up period, and every year, we will check their health status by structured questionnaires through telephoning, mailing or interviewing based on various situations. After 5 years, we will repeat same evaluations described above. I will show you some of the results that have been obtained from the initial evaluations.

2) Demographic backgrounds

Forty seven % lost their spouse and widowers were significantly outnumbered by widows. There was no gender difference in hearing ability. Twelve % revealed urinary incontinence and

Table 3. Demographic Findings and Gender Differences

Widower/widow	46.8% (Male 37.9%, Female 58.4%) *
Good in Hearing	75.8% (Male 75.8%, Female 69.3%)
Urinary incontinence	11.9% (Male 4.6%, Female 18.7%) *
Good in memory	52.7% (Male 54.9%, Female 50.6%)
Smoking	2.8% (Male 4.6%, Female 1.2%) *
No falls	79.9% (Male 86.3%, Female 74.1%) *
Fracture due to fall	10.0% (Male 4.6%, Female 15.1%) *
No pain problems	71.7% (Male 85.6%, Female 72.3%) *
No insomnia	72.7% (Male 72.5%, Female 72.9%)

*P<0.001

Table 4. Variable Personal Interests (%)

Males (n=85)	Females (n=104)
■ Sports (49.4)	■ Music (37.5)
■ Read books (29.4)	■ Sports (26.9)
Music (27.1)	■ Painting (26.9)
■ Traveling (25.9)	Read books (22.1)
■ The game of Go (10.6)	■ Traveling (14.4)
Painting (10.6)	■ Handicrafts (13.5)
■ Calligraphy (9.4)	■ Dancing (10.6)
■ Photography (9.4)	■ A Haiku (8.7)
Recitation of Chinese poem	■ Flower arrangement (8.7)
(7.1)	■ Cooking (8.7)
 A Haiku (7.1) 	- · ·

Table 5. Comparisons of the self-efficacy scale (full marks=12)

(Tall Harks 12)	
■ Control cohort (obtained fro	m Oita Study)
males (n=293, 70±9 y/o)	8.6±2.3*
females (n=536, 68±10 y/o)	7.7 ± 2.6
■ HRV cohort	
males (n=86, 78±5 y/o)	10.0±1.6***
females (n=77, 78±4 y/o)	9.4±2.0**

*p<0.05(male vs female); * *p<0.01(Control vs HRV)

it was more frequently observed in females than in males. Concerning memory issues, there was no gender difference observed. Smokers were found only in 2.8% of the total subjects that is extremely low in prevalence comparing to the ordinary Japanese elderly, and it was still significantly less in females than in males. Non-fallers were found in 80% of the total subjects and fallers were more frequently found in females than in males. Fracture due to falls was found in 10% and this was significantly more frequent in females than in males. No pain problem was found in 72% of the total subjects and pain problems were significantly more frequently found in females than in males. No insomnia was found in 73% and no gender difference was observed

Fig.1 Main purposes of going out for males (n=133) and females (n=156)

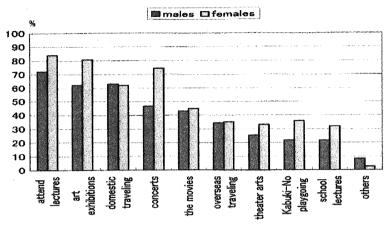


Fig.2 Comparisons of Life Habit Scales in the Male: HRV (n=86) and cntrol (n=2,177)

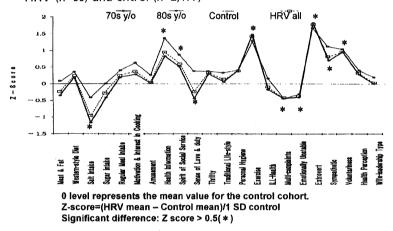
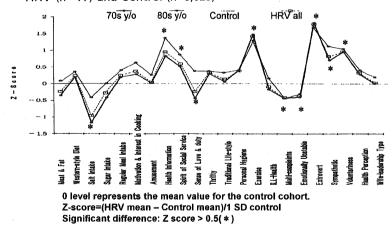


Fig.3 Comparisons of Life Habit Scales in the Female: HRV (n= 77) and Control (n=3,029)



(Table 3).

Their personal interests are quite variable and multiple as shown here (Table 4) and these tendencies are quite different from those of the ordinary Japanese elderly that are used to be less variable and limited to exclusively few items like TV seeing, traveling or gardening. Their main purposes of going out are summarized here and characterized by attendance to lectures, art exhibitions, traveling, concerts and so forth (Table 5).

3) Behavioral characteristics evaluated with LPC Life Habit Inventory

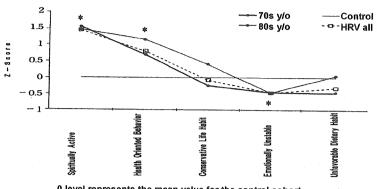
By the early 1990s, we at the Life Planning Center had developed MCQ type of inventory with 142 questionnaires for the assessment of lifestyle which consists of 23 scales representing such following life habits as; ①dietary habits (6 scales), ② smoking and drinking (2 scales), ③ life attitudes (7 scales), ④ health states (3 scales), ⑤ character (3 scales), ⑥ exercise habit (1 scale), and ⑦ self-efficacy (1 scale).

Based on principal component analysis on these scales, following 5 representative main factors were distilled; ① mental spirituality characterized by initiative and extrovert behaviors, ② intellectual behavior characterized by health oriented lifestyle and interests in cooking, ③ sound lifestyle characterized by tradition, duty and sympathy, ④ psychosomatic instability characterized by psychosomatic complaints and emotional

instability, Sundesirable dietary habits characterized by high energy, high fat and sugar intakes. Details of the study will be described by Professor Yanai after my presentation.

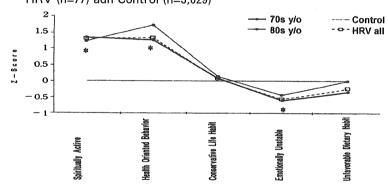
We performed a comparative study on life

Fig.4 Comparisons of Life Habit Scales in the Male: HRV (n=86) and Control (n=2.177)



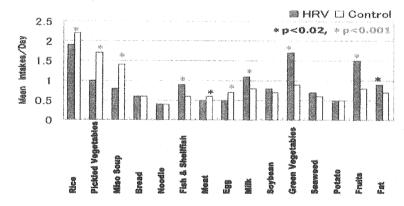
0 level represents the mean value for the control cohort. Z-score=(HRV mean – Control mean)/1 SD control Significant difference: Z score > 0.5(*)

Fig.5 Comparisons of Life Habit Scales in the Female: HRV (n=77) adn Control (n=3,029)



0 level represents the mean value for the control cohort. Z-score=(HRV mean – Control mean)/1 SD control Significant difference: Z score > 0.5(*)

Fig.6 Comparisons of Mean Intakes of Selected Food Items in HRV (n=319) and Control Cohorts (n=133)



habits between the ordinary elderly cohort (n=5,206) and the HRV cohort (n=163) with this inventory. Results are shown in Fig. 2 for the male. There were significant differences observed in several life habit scales, and characteristic

findings are summarized as follows; low salt diet, health oriented life style, volunteer activity, exercise habit, extroversion, initiative, sympathy and negative for emotional instability. The same tendencies were also observed more clearly in the female than in the male cohorts as seen in Fig. 3.

Principal component analyses revealed the most attractive differences concerning the life habit in both sexes, namely high mental spirituality, intellectual life behavior and emotional stability as seen in Fig.4 for the male and Fig.5 for the female. The latter revealed more pronounced differences than the former did.

The results of comparisons of self-efficacy between control and HRV cohorts revealed slight, but significant differences between males and females in both cohorts, and obvious differences between both cohorts in both sexes.

4) Physical and mental characteristics

Two aspects are defined; ①general health conditions with regard to diseases and/or disease related risk factors and/or predictors, and ② morphometry and functional measurements in the physical, chemical and mental state.

Concerning the former, HRV

cohort revealed significantly lower prevalence in coronary heart diseases, stroke, hypertension, diabetes mellitus, smoking, except for hypercholesterolemia than the ordinary elderly cohort in the National Cardiovascular Survey 2000.

Table 6. Six definitions of normal (Sackett et al, 1997)

- Gaussian: the mean±2SD.
- Percentile: within the range of 5~95%.
- Culturally desirable: preferred by society.
- Risk factor: carrying no additional risk of disease.
- Diagnostic: range of results beyond which target disorders become highly probable.
- Therapeutic: range of results beyond which treatment does more good than harm.

Concerning the latter including the result of morphometry and functional measurements, we had already showed various measurement values as target standards for the evaluation of ageing processes, elsewhere. When we think of normality, there are various definition based on different circumstances. We have proposed these measured values as target levels in the sense of cultural health proposed by Dr. Sackett and others2). Their definition of normality is shown in Table 6 Cultural health might be defined as culturally desirable state preferred by society like successful aging concept proposed by Rowe and Kahn (1998)³).

5) Dietary characteristics

We examined the dietary habits among HRV cohort (n=319) and compared them with ordinary elders (n=133) living in the city located in the west side of the Tokyo Metropolitan Area. Dietary characteristics in the latter cohort examined on frequency of food selections were represented with frequent intakes of rice, miso soup and tsukemono that have been typical traditional Japanese food taking habits characterized by high salt content shown in Fig. 6. On the other hand, the HRV cohort revealed less rice, oil or meats, and more seafood, brightly colored vegetables, eggs, milk and fruits than the latter cohort did.

6) What keeps them thriving

Dr. Tsuruwaka at Human Sciences Research Center of Waseda University, Tokyo performed the study on lifestyle of HRV in a different way. She performed interviews to these people (n=61; 24 males and 37 females, average age 78.2y/o) in a 2 hour session using narrative based strategy, through which she tried to distillate characteristic factors representing what keeps them thriving. According to her analyses, following factors were thought to be characteristic in HRV cohort: ①high self-efficacy, ②broad selections, ③high freedom, and ④sense of useful contribution to the society. She also described their characteristic living ways in their daily activities as shown here.

- ①Social networks: They cleverly use to utilize social networks established before their retirements, solve problems elegantly and perform things better than others.
- ②Health maintenance and promotion: They show particular interest in the health, practice exercise and perform dieting themselves.
- ③ Progress and advancement: They always try to be successful in progress and advancement in their knowledge and skills.
- Meaningful social contributions: They always try to maximize their abilities in meaningful social contributions.
- ⑤Plain living and high thinking: They always have clear perspective in the global sense associated with reasonable judgment and effective practices.
- 6 Goal oriented lifestyle: They have plain goals to live.
- ⑦Continuity of their own lifestyle: They always try to stick to their decided way of living.

Summary and Conclusions

In Japan, we have been exposed by a big wave front of ageing and various trials to overcome this emergent incursion have been proposed. Among them, the movement of the New Elder Citizen developed by Dr. Hinohara may not be the best, but a reasonable, promising and prosperous strategy aiming for life with the sense of control and dignity for all seniors. In my talk, we have shown you some of the characteristic aspects of these elders based on the results of physical and psychosocial assessments. In the next step, we will closely follow this cohort up to see, how they proceed their own lives and cope with their coming deaths, and we will try to support them, whenever they need our knowledge and skills to minimize their difficulties. Through these mutual

interactions, we may be able to reach some ideas about good health and death.

References

- 1) http://www.un.org/esa/socdev/ageing/ageipaa3.htm
- Sacket DL, Richardson WS, Rosenberg RG, Haynes RB: Evidence-based Medicine: How to Practice & Teach EBM. 1997, Churchill Livingstone, New York.
- 3) Rowe JW & Kahn RL: Successful Aging. 1998, International Creative Management, New York.