

Department of Mental Health

Outline and Research Objectives

Outline

The department was first established as the 4th Department of Clinical Medicine and Nursing in the School of Health Care and Nursing in the Faculty of Medicine University of Tokyo in 1953. The department was renamed to the department of Mental Hygiene according to the reorganization of the School of Health Care and Nursing into the School of Health Sciences in 1965. In 1992, the department underwent second renaming to the Department of Mental Health and Psychiatric Nursing by the reorganization of the School of Health Sciences into the School of Health Sciences and Nursing. In 1997, according to the restructuring of the Faculty of Medicine into the Graduate School of Medicine, the Department of Mental Health and Psychiatric Nursing was divided into the Department of Mental Health and the Department of Psychiatric Nursing.

Research Objectives

The research objectives of this department are to conduct clinical psychosocial studies in the vast field of mental health and to disseminate results of those studies internationally.

For the last five decades, the department has had many clinical research projects, for example, psychotherapy, forensic psychiatry, community mental health, mental health/psychiatric services, psychiatric rehabilitation, child and adolescent mental health, and developmental disorders, depending on the specialty and interests of faculty members, who have conducted those studies in collaboration with researchers in and outside Japan by employing psychosocial methodologies adopted from diverse allied disciplines (i.e., psychiatry, clinical psychology, nursing, education and sociology).

For the past five years, this department has conducted clinical studies with close collaboration with the Department of Psychiatric Nursing established in 1997. The Department of Psychiatric Nursing has many clinical research projects of its own to substantiate clinical activities in psychiatric nursing: time and motion studies of nurses in acute psychiatric wards; clinical competency of psychiatric nursing; skills of community psychiatric nursing; mother's mental health and child abuse; issues of spirituality with cancer patients; and care burden of families with ALS clients.

For the last decade, the Department of Mental Health has concentrated its research activities mainly in 5 areas: (a) developmental disorders, (b) child and adolescent mental health, (c) mental health services, (d) geriatric psychiatry/mental health, and (e) social psychiatry/community mental health, as introduced in the past research and major accomplishment section.

Faculties and Students

Professor and Chair	Hiroshi Kurita, MD, PhD (since 1992)
Associate Professor in Mental Health	Iwao Oshima, PhD (since 1996)
Associate Professor in Psychiatric Nursing	Mami Kayama, PhD (since 2002)
Associate	1
Graduate student	37
Research student.....	8
Secretary	4

Past Research and Major Accomplishments

The major accomplishments of this department are summarized below in 5 areas, with the number of a related article listed in the select publications section in parentheses.

(a) Developmental disorders (1-16)

In this area, studies on Childhood disintegrative disorder (CDD) and related conditions (1, 5, 9) are particularly of note. CDD is an autistic condition of unknown etiology characterized by severe mental

regression emerged after normal mental development at least by age 2 followed by a severe autistic and mentally retarded state. Prof. Kurita, one of leading clinical researchers of CDD, has conducted diagnostic/nosological studies on CDD or its synonym, disintegrative psychosis (DP), in comparison with autism that could show similar yet much milder regression than CDD/DP. Those studies contributed to the adoption of CDD as a type of pervasive developmental disorders (PDD) in the two international diagnostic systems: the Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV) (American Psychiatric Association, 1994) and the International Classification of Diseases and Related Health Problems 10th revision (ICD-10) (World Health Organization, 1993).

(b) Child and adolescent mental health (17-24)

We conducted studies aiming at clarifying the prevalence of behavior and emotional problems in Chinese children and their risk factors by using a Chinese version of the Child Behavior Checklist (CBCL) in collaboration with the Department of Psychiatry, Shandong Medical School, China. The studies participated by about 3,000 children and adolescents and their parents and teachers in Shandong province yielded a series of outstanding papers. The findings in those studies would contribute to the promotion of mental health of Chinese children and adolescents.

(c) Mental health services (25-34)

Studies in this area clarified present status and challenges of mental health services: service systems (26, 27, 30, 33); evaluation of services (28, 32, 34); and mental health problems in professionals (29, 31).

(d) Geriatric psychiatry/mental health (35-42)

Studies in this area clarified early neuropsychological deficits of patients with dementia (37, 38); pathophysiology of Alzheimer's disease (35, 40, 41); mental health problems of the elderly (39); and mental health of caregivers of patients with dementia (36, 42).

(e) Social psychiatry/community mental health (43-46)

This area involves studies on alcohol dependency (43), mental health problems of sexual harassment victims (44), and supporting patients with schizophrenia (45, 46).

Current Research

(a) Screening pervasive developmental disorders

Pervasive developmental disorders (PDD) are a

group of autistic conditions adopted in the current international classification systems of mental disorders, DSM-IV and ICD-10. The prevalence of PDD was recently reported as high as 0.6%.

The early detection of PDD is important, since early intervention is suggested as effective in ameliorating autistic symptoms and facilitating development of children with PDD even if the cure is not possible. For early detection of PDD, we developed a Japanese version of CHAT (Checklist for Autism in Toddlers), a promising screening tool for PDD developed in UK, and are now gathering clinical data. We also used the Tokyo Autistic Behavior Scale (TABS) developed by us and the Infant Behavior Checklist (IBC), both of which rate autistic behavior in infancy, in the same clinical fields as the CHAT data are gathered to collect data on early features of PDD. Based on these data, we are planning to develop an efficient screening system for PDD.

(b) Early development of high-functioning PDD

High-functioning PDD (HPDD) is a PDD with an IQ over 70 (i.e., not mentally retarded). Although such PDD was considered rare until late 1980s, more than 50% of PDD patients are now suggested to be HPDD. However, social and vocational outcomes of HPDD patients are quite unsatisfactory due to a lack of adequate programs for their education and social adaptation. It is quite unknown how HPDD differs from mentally retarded PDD in early developmental characteristics. Since such features would help early identification of HPDD among PDD, we are now gathering relevant data in young PDD children by using the TABS, IBC and other scales.

(c) Adult outcomes of PDD patients

PDD is a life-long condition but its adult outcomes are still unclear, since many of long-term outcome studies of PDD were conducted before 1990, when remedial education and social support systems were not well established. Since we have one of the largest data bases on PDD in the world and have followed-up a large number (more than 150) of adult PDD patients (over age 20). We are now conducting a comparative study of adult outcomes between autistic disorder (prototypical PDD) and other PDD. We are also planning a study to clarify prognostic factors of adult outcomes of PDD.

(d) Difference and similarity of high-functioning PDD and attention deficit/hyperactivity disorder (ADHD)

In clinical settings, it is frequently difficult to differentiate between high-functioning PDD (HPDD) and ADHD, though difference in treatment does exist between them. We are now conducting a comparative

study between HPDD and ADHD to identify clinical variables to differentiate between both conditions.

Future Prospects

The most important thing for the department in the foreseeable future is to facilitate research activities on mental health more intensively and extensively in collaboration with researchers in and outside Japan. Since the current professor will retire in 2 years from now and in view of the diversity and broadness of the field of mental health, it is difficult to prospect fixed research themes in the future. However, it is crucially important to have a world-class clinical researcher who can perform excellent studies on mental health in his/her own specialty and educate graduate students based on those research activities. Such a person would come from any specialty relating to mental health.

It is also important to facilitate psychiatric nursing studies in collaboration with the Department of Psychiatric Nursing established in 1997, which has published many quality Japanese papers based on its clinical studies and is now concentrating to publish English papers. Since many graduate students have participated in research projects in both departments, it is productive to continue the close collaboration of the two departments in clinical studies.

Research Grants (for the past 5 years)

1. The Research Grant (8B-3) for Nervous and Mental Disorders (the Ministry of Health and Welfare). Title: The study on pathophysiology and treatment of disorders of behavioral, emotional and psychological development from infancy to adolescence. Term: 1996-1998. Head investigator: Hiroshi Kurita, MD
2. Grant-in-Aid for Scientific Research (C) (2) (the Ministry of Education, Science, Sports and Culture). Title: A clinical study on symptoms, development and course of childhood disintegrative disorders. Term: 1997 to 2000. Head investigator: Hiroshi Kurita, MD
3. Grant-in-Aid (11A-6) for Research on Nervous and Mental Disorders (the Ministry of Health, Labour and Welfare). Title: A study on the relationship between attention-deficit/hyperactivity disorder and pervasive developmental disorders. Term: 1999-2001. Investigator: Hiroshi Kurita, MD
4. Grant-in-Aid for Scientific Research (C) (2) (the Ministry of Education, Culture, Sports, Science and Technology). Title: A nosological and diagnostic study on other pervasive developmental disorders. Term: 2001 to 2003. Head investigator: Hiroshi Kurita, MD
5. Grant-in-Aid (14A-8) for Research on Nervous and Mental Disorders (the Ministry of Health, Labour and Welfare). Title: A study on the difference and

similarity of attention-deficit/hyperactivity disorder and pervasive developmental disorders. Term: 2002-2004. Investigator: Hiroshi Kurita, MD

Select Publications

(a) Developmental disorders

1. Kurita H. Infantile autism with speech loss before the age of thirty months. *Journal of the American Academy of Child Psychiatry* 24, 191-196, 1985.
2. Kurita H, Uchiyama T and Takesada M. Tokyo Child Development Schedule. I. Test-retest reliability and concurrent validity. *Folia Psychiatrica et Neurologica Japonica* 39, 129-138, 1985.
3. Kurita H. Variables relating to the mental development of children with infantile autism. *Japanese Journal of Psychiatry and Neurology* 40, 161-168, 1986.
4. Kurita H. A case of Heller's syndrome with school refusal. *Journal of Autism and Developmental Disorders* 18, 315-319, 1988.
5. Kurita H. The concept and nosology of Heller's syndrome: Review of articles and report of two cases. *Japanese Journal of Psychiatry and Neurology* 42, 785-793, 1988.
6. Kurita H, Miyake Y and Katsuno K. Reliability and validity of the Childhood Autism Rating Scale—Tokyo Version (CARS-TV). *Journal of Autism and Developmental Disorders* 19, 389-396, 1989.
7. Kurita H and Miyake Y. The reliability and validity of the Tokyo Autistic Behavior Scale. *Japanese Journal of Psychiatry and Neurology* 44, 25-32, 1990.
8. Kurita H. School refusal in pervasive developmental disorders. *Journal of Autism and Developmental Disorders* 21, 1-15, 1991.
9. Kurita H, Kita M and Miyake Y. A comparative study of development and symptoms among disintegrative psychosis and infantile autism with and without speech loss. *Journal of Autism and Developmental Disorders* 22, 175-188, 1992.
10. Kurita H, Shiiya J and Ito H. A nationwide survey of day-care for children with mental retardation in Japan. *Japanese Journal of Psychiatry and Neurology* 48, 57-63, 1994.
11. Kurita H and Nakayasu N. An autistic male presenting seasonal affective disorder (SAD) and trichotillomania. *Journal of Autism and Developmental Disorders* 24, 687-692, 1994.
12. Kurita H, Saito T and Kita M. Regression in mental development following a psychosocial stressor in disintegrative psychosis. Shimizu M (Ed.). *Recent Progress in Child and Adolescent Psychiatry*, pp.21-28, Springer, 1996.
13. Kurita H. Specificity and developmental consequences of speech loss in children with pervasive developmental disorders. *Psychiatry and Clinical Neurosciences* 50, 181-184, 1996.

14. Kurita H. A comparative study of Asperger syndrome with high-functioning atypical autism. *Psychiatry and Clinical Neurosciences* 51, 67-70, 1997.
15. Kurita H. Delusional disorder in a male adolescent with high-functioning PDDNOS. *Journal of Autism and Developmental Disorders*, 29:419-423, 1999.
16. Tachimori H, Osada H, Kurita H. Childhood Autism Rating Scale--Tokyo version (CARS-TV) for screening pervasive developmental disorders (PDD). *Psychiatry and Clinical Neurosciences* (in press).
27. Ito H, Kishi Y and Kurosawa H. A preliminary study of staff perception of psychiatric services in general hospitals. *General Hospital Psychiatry* 21, 57-61, 1999.

(b) Child and adolescent mental health

17. Liu XC, Ma DD, Kurita H and Tang MQ. Self-reported depressive symptoms among Chinese adolescents. *Social Psychiatry and Psychiatric Epidemiology* 34, 44-47, 1999.
18. Mori M. The influence of father-daughter relationship and girl's sex-roles on girl's self-esteem. *Archives of Women's Mental Health* 2, 45-47, 1999.
19. Liu XC, Kurita H, Guo CQ, Miyake Y, Ze J and Cao HL. Prevalence and risk factors of behavioral and emotional problems among Chinese children aged 6-11. *Journal of the American Academy of Child and Adolescent Psychiatry* 38, 708-715, 1999.
20. Liu XC, Kurita H, Sun ZX and Wang FX. Risk factors of psychopathology among Chinese children. *Psychiatry and Clinical Neurosciences* 53, 497-503, 1999.
21. Liu XC, Uchiyama M, Okawa M and Kurita H. Prevalence and correlates of self-reported sleep problems among Chinese adolescents. *Sleep* 23, 27-34, 2000.
22. Liu XC, Kurita H, Guo CQ, Tachimori H, Ze J and Okawa M. Behavioral and emotional problems in Chinese children: Teacher reports for ages 6 to 11. *Journal of Child Psychology and Psychiatry* 41, 253-260, 2000.
23. Liu XC, Guo CQ, Okawa M, Zhai J, Li Y, Uchiyama M, Neiderhiser JM and Kurita H. Behavioral and emotional problems in Chinese children of divorced parents. *Journal of the American Academy of Child and Adolescent Psychiatry* 39, 896-903, 2000.
24. Liu XC, Kurita H, Uchiyama M, Okawa M, Liu LQ and Ma DD. Life events, locus of control, and behavioral problems among Chinese adolescents. *Journal of Clinical Psychology* 56, 1565-1577, 2000.

(c) Mental health services

25. Kumakura N, Ito H, Mori T, Saito T, Kurisu E, Asaka A, Sasaki Y, Rhi B, Kim Y, Ha K, Rin H and Yang LY. Attitudes change towards mental illness during nursing education: A cross-cultural study of student nurses in Korea, Republic of China and Japan. *Asia-Pacific Journal of Public Health* 6, 120-125, 1992/1993.
26. Ito H, Mori T, Kumagai N, Miyauchi M, Harada S, Yamamura M, Nakano R, Kurita H and Sasaki Y. Changing pattern of mental health utilization in the Hachijojima. *Psychiatry and Clinical Neurosciences* 49, 185-187, 1995.

28. Ito H, Shingai N, Yamazumi S, Sawa Y and Iwasaki S. Characteristics of nonresponders to a patient satisfaction survey at discharge from psychiatric hospitals. *Psychiatric Services* 50, 410-412, 1999.
29. Ito H, Kurita H and Shiya J. Burnout among direct-care staff members of facilities for persons with mental retardation in Japan. *Mental Retardation* 37, 477-481, 1999.
30. Ito H, Eisen SV, Sederer LI and Tachimori H. Involuntary admission in Japanese psychiatric hospitals. *International Medical Journal* 7, 109-112, 2000.
31. Ito H, Eisen SV, Sederer LI, Yamada O and Tachimori H. Factors affecting psychiatric nurses' intention to leave their current job. *Psychiatric Services* 52, 232-234, 2001.
32. Ito H, Tachimori H, Miyamoto Y and Morimura Y. Are the care levels of people with dementia correctly assessed for eligibility of the Japanese long-term care insurance? *International Journal of Geriatric Psychiatry* 16, 1078-1084, 2001.
33. Ito H, Eisen SV and Sederer LI. Acute care psychiatry at McLean Hospital, Massachusetts. *International Medical Journal* 8, 91-96, 2001.
34. Ito H and Sederer LI. Are publicly-insured psychiatric outpatients in Japan satisfied? *Health Policy* 56, 205-213, 2001.

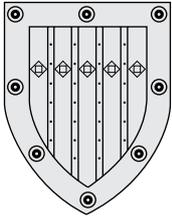
(e) Geriatric psychiatry/mental health

35. Dai XY, Nanko S, Hattori M, Fukuda R, Nagata K, Isse K, Ueki A and Kazamatsuri H. Association of apolipoprotein E4 with sporadic Alzheimer's disease is more pronounced in early onset type. *Neuroscience Letters* 175, 74-76, 1994.
36. Matsuda O. The effect of coping on the caregiver of elderly patients with dementia. *Psychiatry and Clinical Neurosciences* 49, 209-212, 1995.
37. Matsuda O, Saito M and Sugishita M. Cognitive deficits of mild dementia: A comparison between dementia of the Alzheimer's type and vascular dementia. *Psychiatry and Clinical Neurosciences* 52, 87-91, 1998.
38. Matsuda O and Saito M. Features of Alzheimer's disease: Crystallized and fluid intelligence in elderly patients with mild dementia of the Alzheimer type. *International Psychogeriatrics* 10, 147-154, 1998.
39. Hashimoto K, Kurita H, Hratani T, Fujii K and Ishibashi T. Direct and buffering effects of social support on depressive symptoms of the elderly with home help. *Psychiatry and Clinical Neurosciences* 53, 95-100, 1999.
40. Asada T, Motonaga T, Yamagata Z, Uno M and Takahashi K. Association between retrospectively recalled napping behavior and later development of Alzheimer's disease: Association with APOE genotypes. *Sleep* 23, 629-634, 2000.

41. Asada T, Motonaga T and Kinoshita T. Predictors of severity of behavioral disturbance among community-dwelling elderly individuals with Alzheimer's disease: A 6-year follow-up study. *Psychiatry and Clinical Neurosciences* 54, 673-677, 2000.
42. Miyamoto Y, Ito H, Otsuka T, Kurita H. Caregiver burden in mobile and non-mobile demented patients: A comparative study. *International Journal of Geriatric Psychiatry* 17, 765-773, 2002.

(d) Social psychiatry/community mental health

43. Matsuoka K, Kim Y, Toshida S and Oshima N. Relationship between age of onset, antisocial history and general psychopathological traits in Japanese alcoholics. *Psychiatry and Clinical Neurosciences* 54, 413-417, 2000.
44. Matsuoka K, Kurita H, Abe R and Osada H. Mental health of sexual harassment victims in Japanese nurses. *Archives of Women's Mental Health* 4, 1-4, 2001.
45. Kayama M, Zerwech J, Thornton K and Murashima S. Japanese expert public health nurses empower clients with schizophrenia living in the community. *Journal of Psychosocial Nursing and Mental Health Services* 39, 40-45, 2001.
46. Oshima I, Ito J, Taira N. Need for an integrated program of case management and psychoeducation in long stay psychiatric patients in Japan. Kashima H, Falloon IRH, Mizuno M and Asai M. (eds). *Comprehensive Treatment of Schizophrenia: Linking neurobehavioral findings to psychosocial approaches*. Springer, Tokyo, pp.196-203, 2002.



Department Of Social Gerontology

Outline And Research Objectives

It is often voiced from the general public that recent advancement of medicinal technology would not necessarily lead to the happiness of people: Life prolongation technology enables even the terminally ill to live for a considerable period. How to use the technology is a serious problem in clinical practice. Also, there is evidence that the prolongation of life expectancy for the elderly does not mean the prolongation of health and productivity, but that of morbidity.

Taking another example, we are experiencing ethical dilemmas with the application of medical technology such as genetic screenings and organ transplantation. When we turn to the worldwide situation regarding health, we will find poverty and unequal distribution in terms of health resources and outcomes.

The department is studying these health-related problems from psycho-social-ethical perspectives, many of which are often difficult to decide upon. Major topics include elderly health, cancer and/or terminal care, international health and bio-medical ethics among others. We are currently conducting several research projects as described below.

Faculties and Students

Professor and Chair	Ichiro Kai, M.D., M.P.H. (since 1997)
Associate Professor and Lecturer	None
Associate	2
Visiting Researcher	22
Graduate student	18
Research student.....	3

Past Research And Major Accomplishments

1. Elderly Health

This is the major field of interest of our department. Several most important researches will be briefly described.

1) Psychotic manifestations of the demented elderly and their relationship with caretakers

We examined the correlation between the psychotic symptoms of the demented elderly and their relationship with caretakers. We developed a scale measuring the relationship (CPR Scale), and conducted survey in three culturally different areas, Tokyo, Nagano and Okinawa. We found the better relationship indicated by higher CPR score led to less psychotic symptoms. The results suggest that the psychotic manifestations of dementia can be influenced by environmental factors. (References 2-5, 12,17)

2) Functional capacity and active life expectancy (ALE) of the elderly

The health status of a population is traditionally measured by mortality. However, indices based on mortality are increasingly unsatisfactory to assess health status, especially in an aging society. We conducted survey on functional capacity of the elderly and its chronological changes, using a large-scale cohort of the community residents in Nagano Prefecture. We calculated active life expectancy (ALE) and suggested it could be a useful health indicator for elderly population. (References 16,18, 37-38, 46)

3) Reciprocity of social support on subjective well-being of the elderly

Traditional support study emphasizes the importance of receiving support. We examined the pattern of support exchange (i.e., receiving and providing) and its effects on the subjective well-being of the elderly in rural Japan as well as a number of Asian countries such as Korea, Malaysia and Indonesia. In Korea, both receiving and providing support correlated to better subjective well-being, while only providing did in Japan. We concluded the meaning of receiving support were different between the two cultures. The findings led to further intervention study, as described later in this document. (References 23, 41-42)

4) Long-term care of the elderly

Long-term care of the elderly becomes increasingly important medical/welfare issue in Japan. Geriatric intermediate care facilities (GICFs) were established in 1986 to facilitate discharge from hospitals and sup-

port home care. Since then, we have conducted surveys on how the GICFs were used in Japan, and proposed the policy for their effective utilization. (References 20, 22, 39)

2. Cancer Care and Terminal Care

We conducted several surveys on cancer/terminal care with special emphasis on psycho-social and quality of life (QOL) aspects. We emphasize the importance of effective communication between patients and health care providers. Recently, we are interested in socio-cultural aspects of sexuality after cancer therapy. The latter is partly supported by Grant-in-Aid for Scientific Research from Japanese Society for Promotion of Science (JSPS). (References 14, 19, 24, 34, 36, 40)

3. International Health

The majority of the studies regarding international health were done while I was affiliated with Department of International Community Health, School of International Health, from 1992 to 1997. We were particularly interested the prevention of AIDS in Japan and the other countries in Asia. (References 10-11, 13, 15, 25, 28-29)

4. Bio-medical Ethics

The majority of the studies regarding bio-medical ethics were done in collaboration with Prof. Akira Akabayashi, who was a lecturer of our department and is now the chair of Department of Health Economics. Most studies are questionnaire surveys, and the topics include the ethics education in medical schools and the role of ethics committees among others. (References 21, 26-27, 31, 33, 35, 43-44)

Current Research

Two of the ongoing research projects of the department will be described below.

1. Intervention Study on Social Support Exchange

Our previous study suggests that providing support to spouse, children and friends is important to promote the subjective well-being of the elderly. We devised an intergenerational program involving the elderly and college students. The intervention was basically an interview in which the elderly were supposed to help the college students by telling their life history to the students and, in turn, were benefited by the interview. We found the majority of outcome indices such as life satisfaction and the attitudes toward young generation had improved considerably after the intervention. This study was partly supported by Grant-in-Aid for Scientific Research from JSPS.

2. Frequency of Going Outside and Risk of Functional Decline among the Frail Elderly

To be house-bound is hypothesized to heighten the risk of functional and intellectual deterioration among the frail elderly. We followed up a cohort of the frail elderly in Nagano Prefecture, and examined the relationship between the frequency of going outside home and various physical and psychological outcomes indices. Even after controlling a number of confounding factors, going outside home was shown to inversely correlate to deterioration in physical and psychological health one-year later. These findings suggest the importance of preventing house-bound status of the frail elderly. Subsequently, we are conducting an intervention study involving home visiting by public health nurses. This study is partly supported by Grant-in-Aid for Longevity Study from Ministry of Health, Labor and Welfare and Mitsubishi Foundation.

Future Prospects

Two of the possibly important research fields for our department will be briefly mentioned below.

1. Study on Successful Aging and Productivity

Successful aging is an important concept in the field of contemporary gerontology. One of the key factors to enable successful aging is productivity. We plan to conduct survey on productivity including salaried work, household work and volunteer, and its relationship with the health of the elderly. Large-scale intervention study on prosocial behaviors by the elderly (e.g., providing support to others) will be done as well.

2. Effective Policy for Long-term Care

Since the establishment of Long-term Care Insurance (LCI) in 2000, care of the frail elderly has become important social issue. In future, we plan to put more emphasis on practical aspects and policy issues in social gerontology. We plan to conduct a large-scale survey on LCI users in Tokyo Metropolitan Area and make recommendations on the policy for effective long-term care in Japan.

Research Grants

1. Intervention study on social support exchange: An intergenerational program involving the elderly and high school students. Grant-in-Aid for Scientific Research (KAKENHI) from JSPS (three years from 1998 to 2001) 2.8 million yen
2. Change and its related factors in sexuality for patients experiencing breast cancer surgery. Grant-

in-Aid for Scientific Research (KAKENHI) from JSPS (three year from 2000 to 2003) 3 million yen

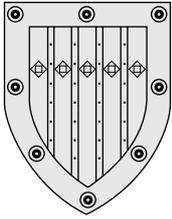
3. Frequency of going outside home and functional decline among the frail elderly. Grant-in-Aid for Longevity Study (KAKENHI) from Ministry of Health, Labor and Welfare (three years from 2000 to 2003) 5.35 million yen
4. Effectiveness of a home visiting program for the house-bound elderly. Mitsubishi Foundation (two years from 2001 to 2003) 2 million yen
5. Predictors for frailty and/or mortality among the rural elderly. Daiwa Health Foundation (one year from 2001 to 2002) 1 million yen

Select Publications

(1) Original Articles

1. Kai I, Inaba Y: Statistical analysis on large-scale food poisoning outbreaks of unknown etiology. *Food Hygiene Study* 29(12):1031-1040, 1979 (in Japanese)
2. Ohi G, Miyama T, Kai I, et al.: Psychotic manifestations in the bedfast elderly: The role of intellectual impairment and environmental stress. *Jap. J. Gerontology* 6(2):124-138, 1984 (in Japanese)
3. Kai I, Ohi G, Suzuki S: Applicability of Hasegawa's Dementia Rating Scale in rural areas in Japan: Comparative study in Tokyo and Okinawa. *Gerontological Psychiatry* 2(2):293-298, 1985 (in Japanese)
4. Ichikawa S, Nakagawa M, Ohi G, et al.: Development of caretaker-patient relationship assessment scale for the frail elderly. *Jap. J. Public Health* 32(5):253-257, 1985 (in Japanese)
5. Miyama T, Suzuki S, Ohi G, et al.: Psychotic manifestations in the elderly with intellectual impairment: Influence of the degree of their intellectual deterioration and caretaker-patient relationship. *Jap. J. Public Health* 32(7):325-332, 1985 (in Japanese)
6. Nagahashi M, Yamazaki N, Ohi G, et al.: Dietary fiber intake and diverticular disease of the colon: A case control study. *Jap. J. Hygiene* 40(4):781-788, 1985 (in Japanese)
7. Takenaga N, Kai I, Ohi G: Evaluation of three cervical cancer detection programs in Japan with special reference to cost-benefit analysis. *Cancer* 55(10):2514-2519, 1985
8. Yamaoka K, Ohi G, Miyama T, et al.: Burden of caretakers of the bedridden elderly: Development of a unidimensional scale. *Jap. J. Public Health* 33(6):279-284, 1986 (in Japanese)
9. Ohi G, Hasegawa T, Kumano H, et al.: Why are cadaveric renal transplants so hard to find in Japan?: An analysis of economic and attitudinal aspects. *Health Policy* 6:269-278, 1986
10. Ohi G, Kai I, Kobayashi Y, et al.: Epidemic potential of AIDS and health policy in Japan. *Jap. J. Public Health* 34(2):49-54, 1987 (in Japanese)
11. Kai I, Ohi G: Infectious disease specialists in academe and AIDS epidemics: Comparison of specialists in public health and clinical medicine. *Jap. J. Public Health* 34(4):195-198, 1987 (in Japanese)
12. Takenaga N, Kai I, Ohi G, et al.: The caretaker-patient relationship and psychotic manifestations in the bedridden elderly. *Jap. J. Hygiene* 42(2):563-569, 1987 (in Japanese)
13. Ohi G, Kai I, Kobayashi Y, et al.: AIDS prevention in Japan and its cost-benefit aspects. *Health Policy* 8:17-27, 1987
14. Kobayashi Y, Yamaoka K, Ohi G, et al.: The economic analysis of home and hospital care for terminally ill patients. *Jap. J. Public Health* 35(1):11-18, 1988 (in Japanese)
15. Ohi G, Terao H, Hasegawa T, et al.: Notification of HIV carriers: Possible effect on uptake of AIDS testing. *Lancet* II:947-949, 1988
16. Kobayashi Y, Kai I, Ohi G, et al.: A study on instrumental activities of daily living and its related factors in the elderly in the farming community. *Jap. J. Public Health* 36(4):243-249, 1989 (in Japanese)
17. Ohi G, Kai I, Ichikawa S, et al.: Psychotic manifestations in the bed-fast elderly: A preliminary communication. *J. Human Ergology* 18:237-240, 1989
18. Kai I, Ohi G, Kobayashi Y, et al.: Quality of life: A possible health index for the elderly. *Asia-Pacific J. Public Health* 5(3):221-227, 1991
19. Kai I, Ohi G, Yano E, et al.: Communication between patients and physicians about terminal care: A survey in Japan. *Soc. Sci. & Med.* 36(9):1151-1159, 1993
20. Ishizaki T, Kai I, Hirayama T: Factors influencing users' destination upon discharge from a geriatric intermediate care facility in an urban area. *Jap. J. Geriatrics* 32(2):105-110, 1995 (in Japanese)
21. Nishimura T, Miyasaka M, Akabayashi A, et al.: The development of evaluation method for bioethics education in Japan: A questionnaire for measuring the ethical problem identification ability. *Bioethics* 5(1):73-77, 1995 (in Japanese)
22. Ishizaki T, Kai I, Hisata M, et al.: Factors influencing users' return home on discharge from a geriatric intermediate care facility in Japan. *J. Am. Geriatric Soc.* 43(6):623-626, 1995
23. Kim HK, Lee SK, Hisata M, et al.: Social support exchange and quality of life among the Korean elderly in a rural area. *Jap. J. Public Health* 43(1):37-49, 1996 (in Japanese)
24. Hisata M, Okazaki N, Kai I, et al.: Attitudes of outpatients toward informed consent in cancer treatment. *J. Jap. Soc. Cancer Therapy* 31(3):171-185, 1996 (in Japanese)
25. Ohi G, Uemura I, Akabayashi A, et al.: Preventive behaviors against HIV transmission adopted by Japanese commercial sex workers (CSWs). *Environ. Health & Prev. Med.* 2(3):132-134, 1997
26. Akabayashi A, Kai I, Itoh K, et al.: The acceptability of advance directive in Japanese society: A questionnaire study for healthy people in the physical check-up settings. *Bioethics* 7(1):31-40, 1997 (in Japanese)
27. Fukatsu N, Akabayashi A, Kai I: The current status of ethics committees and decision making proce-

- dures in general hospitals in Japan. *Bioethics* 7(1):130-136, 1997 (in Japanese)
28. Nishimura-Takahashi T, Akabayashi A, Kai I, et al.: Social and behavioral factors associated with condom use among female commercial sex workers (CSWs) in Tarlac, the Philippines. *Environ. Health & Prev. Med.* 2(4):167-171, 1998
 29. Takai A, Wongkhomthong S, Akabayashi A, et al.: Correlation between history of contact with people living with HIV/AIDS (PWAs) and tolerant attitudes toward HIV/AIDS and PWAs in rural Thailand. *International J. STD & AIDS* 9(8):482-484, 1998
 30. Honda T, Kai I, Ohi G: Fat and dietary fiber intake and colon cancer mortality: A chronological comparison between Japan and the US. *Nutr. & Cancer* 33(1):95-99, 1999
 31. Akabayashi A, Miyasaka M, Kai I, et al.: Survey of medical ethics education in Japanese medical schools. *Med. Education* 30(1):47-53, 1999 (in Japanese)
 32. Yokokawa Y, Kai I, Nakajima T: Development of a "Self Efficacy for Health Promotion Scale" in community-dwelling elderly. *Jap. J. Public Health* 46(2):103-112, 1999 (in Japanese)
 33. Akabayashi A, Kai I: Study of 5th-year medical students interest in medical ethics and related factors. *Med. Education* 30(2):77-82, 1999 (in Japanese)
 34. Akabayashi A, Kai I, Takemura H, et al.: Truth telling in the case of a pessimistic diagnosis in Japan. *Lancet* 354(9186):1263, 1999
 35. Miyasaka M, Akabayashi A, Kai I, et al.: Teaching medical ethics: An international survey of medical ethics curricula in Asia. *J. Med. Ethics* 25(6):514-521, 1999
 36. Takahashi M, Kai I, Akabayashi A, et al.: Who should meet the needs of breast cancer patients?: A questionnaire survey of Japanese surgeons. *Jap. J. Breast Cancer* 14(4):495-502, 1999 (in Japanese)
 37. Ishizaki T, Kai I, Kobayashi Y: Estimation of active life expectancy by Katz method: The results from Saku Cohort Study. *Health Indices* 46(4):23-27, 1999 (in Japanese)
 38. Ishizaki T, Kobayashi Y, Kai I: Functional transition in instrumental activities of daily living among older Japanese. *J. Epidemiol.* 10(4):249-254, 2000
 39. Ishizaki T, Kai I: Risk of acute hospitalization among long-term care patients. *Jap. J. Geriatrics* 37(6):472-478, 2000 (in Japanese)
 40. Watanabe Y, Akabayashi A, Ikeda T, et al.: An analysis of CPR decision-making by middle-aged and elderly healthy people in Japan. *Bioethics* 10(1):111-119, 2000 (in Japanese)
 41. Kim HK, Kai I, Hisata M, et al.: Social support exchange and subjective well-being among the Japanese elderly in a rural area. *Jap. J. Gerontology* 22(3):395-403, 2000 (in Japanese)
 42. Kim HK, Hisata M, Kai I, et al.: Social support exchange and quality of life among the Korean elderly. *J. Cross-Cultural Gerontology* 15(4):331-347, 2000
 43. Watanabe Y, Kai I, Akabayashi A: Attitude of general public toward genetic testing for colon cancer. *Bioethics* 12:32-40, 2001 (in Japanese)
 44. Akizuki Y, Kai I, Akabayashi A: Attitudes of the general public toward artificial insemination by donor. *Bioethics* 12:62-70, 2001 (in Japanese)
 45. Ohta M, Kai I: The development of a filial responsibility scale. *Jap. J. Social Welfare* 42(2):130-7, 2002 (in Japanese)
 46. Ishizaki T, Kai I, Kobayashi Y, et al.: Functional transitions and active life expectancy for older Japanese living in a community. *Arch. Gerontology & Geriatrics* 35(2):107-119, 2002
- (2) Other Papers (Books And Proceedings In English)**
47. Ohi G, Kai I, Terao H, et al.: Cost-benefit aspects of AIDS prevention programs: Its limitation in policy making. *in Fleming AF, et al. (eds.): The Global Impact of AIDS*, Alan R. Liss, Inc. (New York), pp.251-262, 1988
 48. Ohi G, Hisata M, Kai I: High-rise living and the elderly. *in Takano T (ed.): Urban Health*, Kyoiku Syoseki (Tokyo), pp.7-13, 1993
 49. Ishizaki T, Kai I, Hisata M, et al.: Factors influencing users' destination upon discharge from a geriatric intermediate care facility. *in Beregi E, et al. (eds.): Recent Advances in Aging Science*, Monduzzi Editore (Bologna), pp.2193-2196, 1993
 50. Kai I.: Active life expectancy and its correlates among the elderly living in a rural community in Japan. *in Hisamichi S, et al. (eds.): WHO-CC Monograph No.3 Active (Disability-Free) Life Expectancy*, WHO-Collaborating Center for Well-being in Aging (Sendai), pp.52-53, 1995



Department of Health Economics / Health Promotion Sciences / Biomedical Ethics

Outline and Research Objectives

The former Department of Health Administration was established in 1967 and Dr. Tsuneo Tanaka became its first professor in 1974. He devoted himself to the development of the community health care system in Japan and publishes numerous papers concerning the social theory of health administration and the data management systems for community health care. He also contributed to the establishment of the School of Health Sciences. In 1985, Dr. Atsuaki Gunji became the second professor of the department. During Dr. Gunji's tenure, two major research projects were undertaken. One was "the effects of physical activity and inactivity on health." From 1990, a 20-day bed rest human experimental study was conducted in the context of an international cooperative research project that was supported by government grants. The other project concerned health care systems, especially health care economics and the quality of hospital care.

In 1996, the Department of Health Administration was divided into two departments: the Department of Health Economics and the Department of Health Promotion Sciences. Both were established as departments of the Graduate School of Medicine. In 1998, Dr. Yasuki Kobayashi became professor of the Department of Health Economics. He conducted research into health care delivery systems in Japan. In 2001, he moved to the Department of Public Health. Since 1996, Dr. Kiyoshi Kawakubo has been taking charge of the Department of Health Promotion Sciences.

In June 2002, Dr. Akira Akabayashi (now concurrently at Kyoto University) was appointed as Dr. Kobayashi's successor. Dr. Akabayashi's research area is in biomedical ethics and a new Department of Biomedical Ethics will be officially established in April 2003.

Faculties and Students

Professor and Chair	Akira Akabayashi, M.D., Dr. Med. Sc., (2002~, concurrently at Kyoto University)
Associate Professors	Kiyoshi Kawakubo, M.D., Dr. Med. Sc., (1996~)
Associates	1
Postdoctoral Fellows	none
Graduate Students	7
Research Students.....	2
Secretaries	3

Past Research and Major Accomplishments

Past research can be divided into two fields, health economics and health promotion sciences. In the field of health economics, analysis of terminal care cost for the aged in a community, analysis of regional differences in medical care costs for the aged and analysis of hospital care costs and revenues were the main research topics. About 70% of the regional differences

was accounted for by the overall quantity of medical care supplies such as the number of hospital beds. Other topics were related to the economic aspects of health care and the quality of care. Both supply and demand analyses were performed on, for example, hospital costs and patient behavior. Tools for evaluating the quality of hospital care were also developed. Recent research topics include studies related to either or both the supply and demand sides of health care in Japan such as physician distribution, outcomes of the separation of pharmaceutical dispensing from medical practice, and patient behavior under Japan's national health insurance system. The main research questions are related to how the health and social systems shape the health care systems and health itself, and what system should be established in order to maintain both efficiency and equity.

The focus of research activities of the Department of Health Promotion Sciences is on the scientific basis of health promotion, specifically the effects of physical activity and inactivity on health status. Since 1991, a bed rest study has been performed, involving the

investigation of the effects of simulated microgravity on cardiovascular and metabolic parameters as well as on bone density. This is the first bed rest study conducted in Japan. The "Healthy Japan 21" strategy was introduced in 2000 by the former Ministry of Health and Welfare, and the department has devoted part of its "physical activity and exercise" studies to this strategy. Currently the department is engaged in the development of health promotion strategies for the community and workplace. The assessment of health promotion resources in the community and workplace is the major concern of these research activities.

Current Research

With the establishment of the new department of Biomedical Ethics in April 2003, the foci of the research projects may shift to healthcare ethics and health promotion sciences (behavioral science). Research in the field of health economics will also be performed in close relationship with the Department of Public Health (chaired by Dr. Y. Kobayashi). The research projects being conducted mainly by Dr. Akabayashi are described below.

Grant-supported research projects (within 5 years)

1. **Study of the methods for the formation of social consensus related to advanced medical technology.** The purposes of this project are: 1) to clarify ethical, legal, and social issues related to the implementation of new medical technology, and 2) to explore methods for the formation of social consensus and policy. This project includes the theoretical aspects of social consensus, historical case analysis of organ transplantation and gene therapy in Japan, and three nationwide surveys. Supported by the *Special Coordination Fund for Promoting Science and Technology, The Ministry of Education, Culture, Sports, Science and Technology*.
2. **Publication of a medical ethics case book for Japan.** The purpose of this project is to collect illustrative cases of ethical issues and to produce a casebook for the field of medical ethics in Japan, which is hoped to become a standard textbook for those who study or teach medical ethics as well as a resource for research. The book is also expected to help explain current Japanese medical ethics to interested persons in other countries. Supported by a *Grant-in-Aid for Scientific Research (B), The Ministry of Education, Science, Sports and Culture*.
3. **Study of the functions and responsibilities of ethics committees in Japan.** The growing number of ethics committees (ECs) indicates that signifi-

cant changes have occurred in the decision making process in the clinical setting in Japan. The main purposes of this study are: 1) to investigate the current status; 2) to make guidelines for establishing and running an EC in a general hospital setting; 3) to explore the extent of discretion and responsibility of ECs, and 4) to make a comprehensive proposal. Supported by a *Grant-in-Aid for Scientific Research (C), The Ministry of Education, Science, Sports and Culture*.

4. **Comparative study of clinical ethics in the Asian region.** The purpose of this project is to engender ongoing inter and intra regional dialogue, research, education and development of clinical ethics throughout the Asian region. Specifically, this project will focus on issues that stem from the nature of the clinician-patient relationship, such as how information is shared (informed consent, delivering bad news, role of the family, etc.), competence or decision-making capacity, confidentiality, and end-of-life decision making. The results obtained through this preliminary study will be used as the basis for a comprehensive study. Supported by a *Grant-in-Aid for Scientific Research (C), The Ministry of Education, Science, Sports and Culture*.
5. **Others:** Other research activities include research into the acceptability of advance directives in Japan (a grant from the Ministry of Education in 1996-1997), the development of evaluation methods for biomedical ethics education (a grant from the Ministry of Education in 1995-1996), and the ethical and psycho-social aspects of living related liver transplantation.

Future Prospects

Modern biomedical ethics in Japan has emerged as a new medical field and many medical schools are establishing relevant departments or units. As long as this discipline remains in the medical arena, it needs to deal with both theoretical and practical issues. Even though this discipline has not been fully established yet, many issues have already arisen. It is clear that the focus will have to be on the development of basic teaching and research methods that can garner the support of both the medical community and society in general. Ethics committees constitute an inescapable part of the activities related to this discipline. Without sound ethics committees, no research involving human subjects can be implemented. Within this departments unit, health economics and behavioral science make a major contribution to the study of biomedical ethics because allocation of health care resource is a major topic in healthcare ethics, and behavioral science is essential for the teaching of com-

munication skills with patients and an understanding of patient behavior. In the near future, this departments unit is hoped to become a domestic as well as an Asian regional center for academic research.

Research Grants (within 5 years)

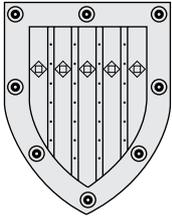
1. *Study of the methods for the formation of social consensus related to advanced medical technology. Special Coordination Fund for Promoting Science and Technology, The Ministry of Education, Culture, Sports, Science and Technology 2001-2002, ¥55,000,000 (PI: Akabayashi, A)*
2. *Study on the health promotion environmental indices for the community: The Ministry of Health, Labor and Welfare, Health Sciences Research Grant, 2000-2001, ¥55,000,000 (PI: Kawakubo, K)*
3. *Publication of a medical ethics case book for Japan. Grant-in-Aid for Scientific Research (B), 1998-2000, The Ministry of Education, Science, Sports and Culture, ¥3,600,000 (PI: Akabayashi, A)*
4. *Comparative study of clinical ethics in the Asian region. Grant-in-Aid for Scientific Research (C), 2000, The Ministry of Education, Science, Sports and Culture, ¥1,200,000 (PI: Akabayashi, A)*
5. *Study of the functions and responsibilities of ethics committees in Japan. Grant-in-Aid for Scientific Research (C), 1997-1999, The Ministry of Education, Science, Sports and Culture, ¥2,200,000 (PI: Akabayashi, A)*

Select Publications

1. Akabayashi A. Euthanasia, assisted suicide, and cessation of life support: Japan's policy, law, and an analysis of whistle blowing in two recent mercy killing cases. *Social Science & Medicine* 55: 517-527, 2002.
2. Akabayashi A, Nishimori M, Fujita M, Slingsby BT. Living related liver transplantation: a Japanese experience and development of a checklist for donor's informed consent. *Gut* 51: 2002 (in press)
3. Akabayashi A, Slingsby BT, Voltz R. Advance Directives. In Bruera E. eds., *Palliative Care in Neurology* Oxford University Press, New York, NY, 2002 (in press).
4. Matsushima T, Akabayashi A, Nishitaten K. The current status of bereavement follow-up in hospice and palliative care in Japan. *Palliative Medicine* 16: 151-158, 2002.
5. Akabayashi A. "To Intervene?", "Misrepresenting Research" (commentary). In Thomasma DC and Kushner T eds., *Ward Ethics*, Cambridge University Press, NY, pp. 244-247, 249-251, 2001.
6. Akabayashi A, Voltz R. Advance Directives in Different Cultures. In Portenoy RK and Bruera E eds., *Topics in Palliative Care* vol. 5, Oxford University Press, New York, NY, pp.107-122, 2001.
7. Lee JS, Kawakubo K, Sato H, Kobayashi Y, Haruna Y. Relationship between total and regional bone miner-

- al density and menopause state, body composition and life style factors in overweight Japanese women. *Int J Obese* 25: 880-886, 2001.
8. Lee JS, Kawakubo K, Kobayashi Y, Mori K, Kashihara H, Tamura H. Effects of ten year body weight variability on cardiovascular risk factors in Japanese middle-aged men and women. *Int J Obese* 25: 1063-1067, 2001.
9. Akabayashi A, Fetters MD. Paying for informed consent. *Journal of Medical Ethics* 26: 3; 212-214, 2000.
10. Fukusaki C, Kawakubo K, Yamamoto Y. Assessment of the primary effect of aging on heart rate variability in humans. *Clinical Autonomic Research* 10: 123-130, 2000.
11. Kashihara H, Ohno H, Tamura M, Kawakubo K, Gunji A. Risk factors for ischemic heart disease in an urban area of Japan: a case-control study in AMHTS. *Method Inform Med* 39: 223-228, 2000.
12. Ishizaki T, Kobayashi Y, Kai I. Functional transitions in instrumental activities of daily living among older Japanese. *Journal of Epidemiology* 10: 249-254, 2000.
13. Akabayashi A, Kai I, Takemura H, Okazaki H. Truth telling in the case of a pessimistic diagnosis in Japan. *The Lancet* 354:1263, 1999.
14. Akabayashi A, Fetters MD, Elwyn TS. Family consent, communication, and advance directive for cancer disclosure: A Japanese case and discussion. *Journal of Medical Ethics* 25 : 4; 296-301, 1999.
15. Miyasaka M, Akabayashi A, Kai I, Ohi G. An international survey of medical ethics curricula in Asia. *Journal of Medical Ethics* 25: 6; 514-521, 1999.
16. Voltz R, Akabayashi A, Reese C, Ohi G, Sass HM. Attitude of health care professionals towards clinical decisions in palliative care: A cross-cultural comparison. *Journal of Clinical Ethics* 10: 4; 309-315, 1999.
17. Akabayashi A. Transplantation from a Brain Dead Donor in Japan. *The Hastings Center Report* May-June 29(3): 48, 1999.
18. Haruna Y, Lee JS, Kawakubo K, Suzuki Y. Cardiovascular reserve to orthostatic stress in active living elders. *J Gravit Physiol* 6: 107-108, 1999.
19. Suzuki Y, Takenaka K, Haruna Y, Akima H, Fukunaga T, Kawakubo K, Gunji A. Relatively shorter but intensive isotonic exercise in legs prevented the decrease in maximal aerobic power after 20 days of head down tilt bed rest in man. *J Gravit Physiol* 6: 117-118, 1999.
20. Oba M, Kawakubo K, Lee JS, Haruna Y, Suzuki Y, and Gunji A. Degraded Diet Induced Thermogenesis Induced by 20-days 6° Head-Down Bed Rest and the Effect of Resistance Training. *J Gravit Physiol* 6: 149-50, 1999.
21. Akabayashi A. Female circumcision - A health issue or a human rights issue. *Health Care Analysis* 6 (1): 55-58, 1998.
22. Takai A., Wongkhomthong S, Akabayashi A, Kai I, Ohi G, Naka K. Correlation between history of contact with people living with HIV/AIDS(PWAs) and Tolerant Attitudes toward HIV/AIDS and PWAs in rural Thailand. *Int J STD and AIDS* 9: 482-484, 1998.

23. Voltz R, Akabayashi A, Reese C, Ohi G, Sass HM. End-of-life decisions and advance directives in palliative care: A cross-cultural survey of patients and health care professionals. *Journal of Pain and Symptom Management* 16: 153-162, 1998.
24. Ohi G, Akabayashi A, Miyasaka M. Japan's health care system as egalitarian: A brief analysis of its history and selected social systems. *Health Care Analysis* 6 (2): 141-149, 1998.
25. Nishimura-Takahashi T, Akabayashi A, Kai I, Cabigon J, Ohi G, Naka K. Social and Behavioral Factors Associated with condom use among female commercial sex workers (CSWs) in Tarlac, the Philippines. *Environmental Health and Preventive Medicine* 2(4): 167-171, 1998.
26. Yanagibori R, Kondo K, Suzuki Y, Kawakubo K, Iwamoto T, Itakura H, Gunji A. Effect of 20 days' bed rest on the reverse cholesterol transport system in healthy young subjects. *J Intern Med* 243: 307-312, 1998.
27. Murakami T, Yamada N, Kawakubo K, Oku J, Mizushima Y, Lino S, Sugimoto T. Lipoprotein abnormalities in non-insulin dependent diabetic patients with ischemic heart disease. *Artery* 22: 206-232, 1997.
28. Akabayashi A. Finally done -- Japan's final decision on organ transplantation. *The Hastings Center Report* Sep-Oct 47, 1997.
29. Akabayashi A. Japan's parliament passes brain-death law. *The Lancet* 349: 9069, 1895, 1997.
30. Voltz R, Akabayashi A, Reese C, Ohi G, Saas HM. Organization and patients' perception of palliative care: A crosscultural comparison. *Palliative Medicine* 11: 351-357, 1997.
31. Gunji. A. Short review of human prolonged horizontal bed rest studies in Japan. *J Gravit Physiol* 4: S1-9, 1997.
32. Akabayashi A. The concept of happiness in oriental thought and its significance in clinical medicine. In *Japanese and Western Bioethics*, Philosophy & Medicine Series 54, Kluwer Academic Publishers, Netherlands, pp.161-164, 1997.
33. Akabayashi A. Questions raised over release of side-effects data in Japan. *The Lancet* 350: 9071, 124, 1997.
34. Sass H, Bonkovsky F, Akabayashi A, Kielstein R, Olick RS. Advance Health Care Documents in Multicultural Perspective. *Ann. Rev. of Law and Ethics*. Band 4, 465-508, 1996.
35. Suzuki Y, Akima H, Igawa S, Fukunaga T, Kawakubo K, Goto S, Makita Y, Gunji A. Decrease of bone mineral density and muscle and/or strength in the leg during 20 days horizontal bed rest. *J Gravit Physiol* 3: 42-43, 1996.
36. Linnarsson D, Sundberg CJ, Tedner B, Haruna Y, Karemaker JM, Antonutto G, Prampero PE. Blood pressure and heart rate responses to sudden changes of gravity during exercise. *Am.J.Physiol.* (Heart Cir. Physiol. 39): H2132-H2142, 1996.
37. Akabayashi A. Financing health care - A Japanese perspective. *Health Care Analysis* 3: 123-125, 1995.
38. Akabayashi A. Open letter to those diet members responsible for legislating Japanese organ transplantation. *Health Care Analysis* 3: 358-360, 1995.
39. Suzuki Y, Haruna Y, Kuriyama K, Kawakubo K, Igawa S, Goto S, Makita Y, Gunji A. Effects of 20 days bed rest on mechanical efficiency during upright cycling and leg muscle mass in young males. *J Gravit Physiol* 2: 74-75, 1995.
40. Haruna Y, Suzuki Y, Yanagibori R, Kawakubo K, Gunji A. Activated renin-angiotensin-aldosterone system and its effects on cardiovascular system during 20-days horizontal bed rest. *J Gravit Physiol* 2: 27-28, 1995.
41. Miyashita S, Haruna Y, Suzuki Y, Gunji A. Effects of posture on cardiorespiratory responses during mild exercise. *J. Phys. The. Sci.* 7: 21-25, 1995.
42. Lee JS, Aoki K, Kawakubo K, Gunji A. A study on indices of body fat distribution for screening for obesity. *J Occup Health* 37: 9-18, 1995.
43. Jeong HS, Gunji A. The influence of system factors upon the macro-economic efficiency of health care: implications for the health policies of developing and developed countries. *Health Policy* 27: 113-40, 1994.
44. Koyano W, Hashimoto M, Gunji A, Fukawa T, Shibata H. The social support system of the Japanese elderly. *Journal of Cross-Cultural Gerontology* 9: 323-33, 1994.
45. Kawakubo K, Gunji A, Sakamoto S, Nakamura F. Exercise-induced ST segment changes and coronary risk factors in asymptomatic men. *Jpn Heart J* 35: 531-532, 1994.
46. Suzuki Y, Kashihara H, Takenaka K, Kawakubo K, Makita Y, Goto S, Ikawa S, Gunji A. Effects of daily mild supine exercise on physical performance after 20 days bed rest in young persons. *Acta Astronautica* 33: 101-11, 1994.
47. Bonde-Petersen F, Suzuki Y, Kawakubo K, Gunji A. Capillary filtration rate, venous compliance, and blood flow in arms and legs do not change during bed rest for 20 days. *J Grav Physiol* 1: 27-8, 1994.
48. Suzuki Y, Murakami T, Kawakubo K, Haruna Y, Takenaka K, Goto S, Makita Y, Igawa S, Gunji A. Regional changes in muscle mass and strength following 20 days of bed rest, and the effects on orthostatic tolerance capacity in young subjects. *J Grav Physiol* 1: 57-8, 1994.
49. Akabayashi A, Morioka M. Ethical issues raised by medical use of brain-dead bodies in the 1990s. *BioLaw* II (48): S531-538, 1991.
50. Akabayashi A, Morioka M. Research on dead persons. *Ann. Intern. Med.* 111 (1): 89, 1989.



Department of Biostatistics / Department of Epidemiology and Preventive Health Sciences

Outline and Research Objectives

These two departments were established from the department of Biostatistics and Epidemiology in 1996 according to the reorganization of the Graduate School. They are now jointly managed under the supervision of Prof. Ohashi, who moved to the School in 1990 from the University Hospital Computer Center, the University of Tokyo Hospital. When Prof. Ohashi moved to the School, the name of the department was 'Epidemiology' and the name was changed into the above 'Department of Biostatistics and Epidemiology' in 1992 according to the reorganization of the undergraduate and graduate schools and their educational systems. This department was the first official department of biostatistics in Japanese universities, which shows this interdisciplinary and indispensable specialty field required for medical research has been neglected in Japanese university educational system. Now there are three departments of biostatistics; the two others are in Kitasato University (from 1999) and Kyoto University (from 2000), respectively. Our department has, as the first department which can provide comprehensive educational courses in epidemiology and biostatistics from the under-graduate level, brought up and sent many biostatisticians and theoretical epidemiologists to research institutions including Kyoto University, the Ministry of Health, Labor and Welfare and the National Cancer Center as well as pharmaceutical industry.

- (1) Development of statistical-analytical methodology required for medical research including genome data analysis (such as microarray data)
- (2) Development of methodology of clinical trials including data management
- (3) Collaborative epidemiological research (JALS Study described later)
- (4) QOL research
- (5) Outcome research, pharmaco-economical and/or pharmaco-epidemiological research

The last research project is now conducted in collaboration with the department of Pharmacoepidemiology (established in 1993 with the main support from our department) and the department of Pharmaco-economics in the School of Pharmacy. The partnership with the Clinical Bioinformatics Educational Unit, which was just established in 2002, will deepen and expand our research activities especially in the field of clinical epidemiology.

Faculty and Students

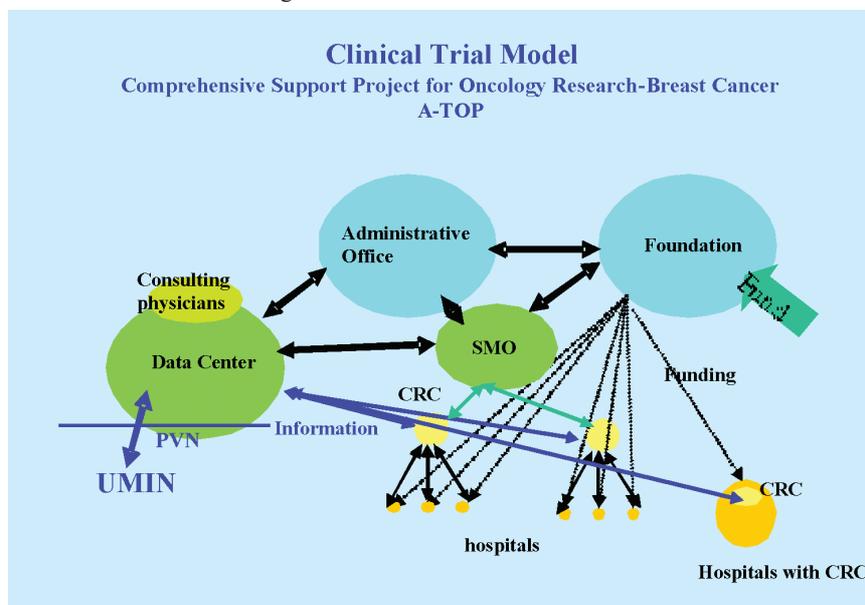
Professor and Chair	Yasuo Ohashi Ph.D. (1990-)
Associate	2
Postdoctoral Fellow	3
Graduate student	7 (doctor) 8 (master)
Research student.....	12
Secretary	3

Past Research and Major Accomplishments (number in the parenthesis is the paper in the selected list)

A new methodology of random allocation, the centralized dynamic balancing, was firstly introduced by Ohashi (in 1988 and (1)) into Japan and implemented in many clinical fields rather than oncology, the original application field. The possibility of utilizing Web

(internet) system for registration/randomization was firstly (in the world) discussed in (21) and implemented in the UMIN (University Medical Information Network: one of the largest medical network system managed by the University Hospital Computer Center). As a statistician, Ohashi participated into many clinical trials, especially large-scale long-term clinical trials which had been very rare in Japan until 1990 and contributed to the design, conduct and analysis. Clinical areas include: oncology (37), hematology (25), organ-transplantation, bone-marrow transplantation (45), infectious diseases (8,38), diabetes, cardiovascular diseases (48), hypercholesterolemia (44), cerebrovascular diseases (10,36), kidney diseases (28), neurological disorders and urology (9,32). These collaborative studies stimulated new methodological developments in design and analysis of clinical trials. Examples include:

Fig.1 Clinical Trial Research Model



- Bayesian dose-escalation design in early cancer clinical trials (29,50)
- Drug randomization and delivery system using network (35)
- Analysis method for investigating institutional differences (27,33,34,47)
- Analysis method of recurrent events (31)
- Analysis method of bivariate longitudinal data (23,41)

Consultation is a major mission of biostatisticians in medical institutions and contributes to new findings in each research area as well as confirming usefulness of statistical methodology and education of young statisticians. Illustrative examples we experienced include:

- Application of time-dependent covariate analysis (2,4,6)
- Application of kernel smoothing (30)
- Application of cluster analysis (5)

Ohashi and his colleague conducted several meta-analyses of Japanese original oncology drugs, which had been widely used in the surgery adjuvant setting and criticized due to lack of clinical evidence, and provided the data for evaluating the risk-benefit ratio (42). Pharmacoepidemiology is a new active field explored in collaboration with the department of Pharmacoepidemiology. Besides specific researches (15,39), we have established the original adverse-events monitoring system (J-PEM) with participation of pharmacists and published the results of pilot studies (40,49). Some pure epidemiological researches have been conducted by Ohashi and colleagues (19,46), and they are highly evaluated for their rigorous methodology. These experiences lead to a new research area, a prospective collaborative meta-analy-

sis (JALS) of Japanese representative cohort studies which is described later.

QOL research is an interdisciplinary area which requires collaboration with not only care providers but also other specialists such as psychologists and statisticians. Ohashi started pioneering works in Japanese oncology area (12,43) as a statistician and are preparing several papers based on the results of large-scale clinical trials in breast cancer and non-small-cell-lung cancer.

Current Research and Future Prospects

The research objectives described in the earlier section are pursued in collaboration with inside and outside researchers as in the past; the recent topics includes:

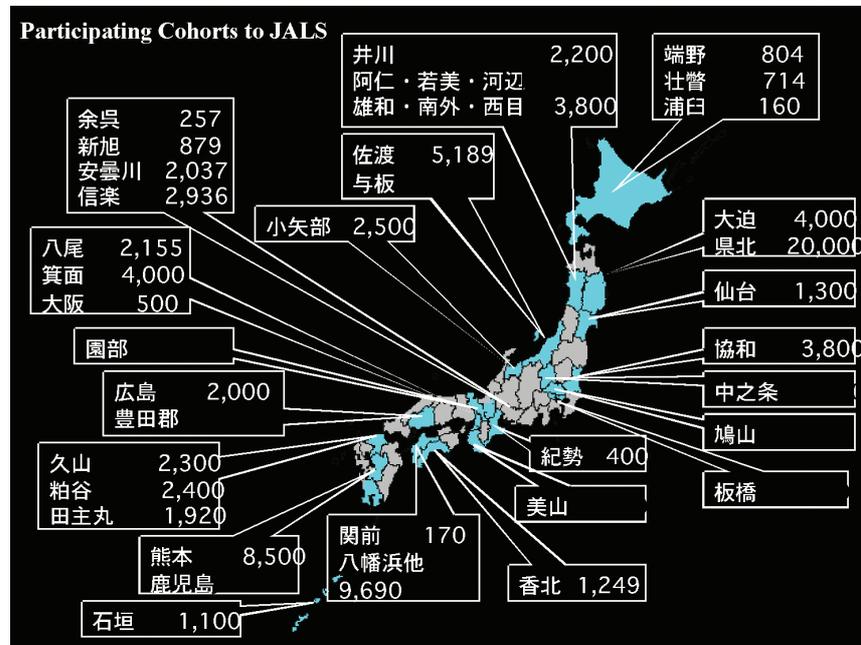
- Analysis method for multiple (different type) events
- Joint modeling of longitudinal data and events
- Analysis method for determining the racial difference in drug responses
- Method of sample size re-estimation in clinical trials
- Method of cluster randomization in clinical trials

In addition, new research models emerged recently.

In 2001, Ohashi established a NPO titled Japan Clinical Research Support Unit (J-CRSU) as a chair-person for

- Support for investigator-initiated clinical research through statistical analysis, data management and quality assurance
- Educational support of clinical research methodology and biostatistics, especially education of clinical research coordinators (CRC; research nurses)
- Support for education and dissemination of medical writing and he also started a model project

Fig.2 JALS participating cohorts



called Comprehensive Support Project for Oncology Research-Breast Cancer (CSPOR-BC) in the Public Health Research Foundation for

- Planning and conduct of investigator-initiated clinical trials for breast cancer patients
- QOL research in oncology
- Education of CRC
- Information support for breast cancer patients and researchers/CRC

The research model is described in Fig.1, where quality control is conducted through the collaboration between data center located in the NPO and CRC dispatched from site management organizations (SMO) or CRC hired in each institution. For increasing efficacy (reducing cost) and keeping security, remote data entry system utilizing UMIN and private virtual network system is designed. Three clinical trials on this scheme are ongoing or will be started by the end of 2002 (2 breast cancer trials (1200 and 2500 patients, respectively) supported by CSPOR-BC and 1 osteoporosis trial (1800 patients) supported by the similar project called A-TOP).

One big epidemiological research project called Japanese Arteriosclerosis Longitudinal Study (JALS) has started from 2001 supported by the Japanese Arteriosclerosis Prevention Fund. The objective of JALS is to conduct a prospective meta-analysis collecting the base-line and follow-up data from individually conducted Japanese cohort studies (including the famous Hisayama cohort) and estimate the gender-age specific incidence rates of cardiovascular and cerebrovascular events as well as quantify the influence of various risk factors. The operation office is located in the NPO and we have conducted the standardization

procedures including standardization of blood-pressure measurements, lipid measurements and developments of the common questionnaires for nutrition intake and physical activities. At present (November, 2002), the cohort size is expected to be 90,000 (regional cohorts) and 25,000 (job-office cohorts) as shown in Fig.2.

All department staffs and students are involved in the above research activities and these models will provide new opportunities of collaboration and education not only for inside persons but also outside researchers and students as well as industry persons.

Recent research topics conducted in these activities include:

- Development of analytical methodology required for meta-analysis
- Validation of physical activity questionnaire using a newly developed instrument measuring acceleration every 4 seconds
- QOL and neurotoxicity by chemotherapy in breast cancer patients
- Epidemiology of postmenopausal symptoms and depression in breast cancer patients

A variety of research fields are expected to emerge from mutual stimulation and enlightenment.

Research Grants

11 grant projects from the Ministry of Health, Labor and Welfare and 1 grant project from the Ministry of Education and Science are ongoing in 2002 including:

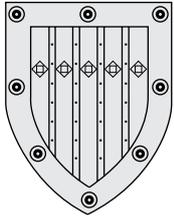
- (1) Establishment of the tailor-made strategy for osteoporosis
- (2) Mild hypothermia therapy for severe head injuries in human: a multicenter randomized control trial

- (3) Establishment of novel treatment strategy for breast cancer using cDNA array technology
- (4) Clinical development of new modality of allogeneic hematopoietic stem cell transplantation with a reduced-intensity regime
- (5) Study on establishment of clinical trial system of good quality through cooperative group mechanism

Select Publications (* with reprints)

1. Ohashi Y : Randomization in cancer clinical trials : Permutation test and development of a computer program. *Environmental Health Perspectives*; 87: 13-7., 1990.
2. Funatsu H, Yamashita H, Ohashi Y, Ishigaki T : Correlation between progression of diabetic retinopathy and blood glucose control. *Japanese J. Ophthalmology*; 35: 306-16., 1991.
3. Shiina S, Fujino H, Uta Y, Ohashi Y et al. : Relationship of HbsAg subtypes with HbeAg/anti-Hbe status and chronic liver disease. Part I: Analysis of 1744 HbsAg carriers. *The American J. Gastroenterology*; 86: 866-71., 1991.
4. Funatsu H, Yamashita H, Ohashi Y, Ishigaki T : Effect of rapid glycemic control on progression of diabetic retinopathy. *Japanese J. Ophthalmology*; 36: 356-67., 1992.
5. Suzuki Y, Araie M, Ohashi Y : Sectorization of the central 30° visual field in glaucoma. *Ophthalmology*; 100(1): 69-75., 1993.
- 6*. Yoshimoto M, Sakamoto G, Ohashi Y : Time dependency of the influence of prognostic factors on relapse in breast cancer. *Cancer*; 72(10): 2993-3001., 1993.
7. Yamada N, Gotoda T, Yoshinaga H, Ohashi Y et al : Increased risk factors for coronary artery disease in Japanese subjects with hyperinsulinemia or glucose intolerance. *Diabetes Care*; 17(2): 107-14., 1994.
8. Morikawa Y, Ohashi Y, Harada K, Asai T et al : A multicenter, randomized, controlled trial of intravenous gamma globulin therapy in children with acute Kawasaki disease. *Acta Paediatrica Japonica*; 36: 347-54., 1994.
9. Isaka S, Shimazaki J, Akimoto S, Ohashi Y et al : A prospective randomized trial for treating stages B2 and C prostate cancer : Radical surgery or irradiation with neoadjuvant endocrine therapy. *Japanese J. Clinical Oncology*; 24(4): 218-23., 1994.
10. Sasaki T, Ohta T, Kikuchi H, Ohashi Y et al : A phase II clinical trial of recombinant human tissue-type plasminogen activator against cerebral vasospasm after aneurysmal subarachnoid hemorrhage. *Neurosurgery*; 35(4): 597-605.
11. Matsumoto T, Yamada N, Ohashi Y, Kikuchi M : Coronary heart disease mortality is actually low in diabetic Japanese by direct comparison with the Joslin cohort. *Diabetes Care*; 17(9): 1062-3., 1994.
12. Yasue M, Sakamoto J, Morimoto T, Ohashi Y et al : Evaluation of the effect of pancreatic resection in advanced pancreatic cancer with special reference using hospital-free survival as a measure of quality of life. *Japanese J. Clinical Oncology*; 25: 37-45., 1995.
13. De Mulder PHM, Williams R, Ohashi Y, Blumenstein BA et al : The Design of clinical trials for new therapies in bladder cancer: Is it time for new strategies? *International J. Urology*; 2(Suppl2): 113-6., 1995.
14. Tanimoto K, Nakano K, Kano S, Ohashi Y et al : Classification criteria for polymyositis and dermatomyositis. *The Journal of Rheumatology*; 22(4): 668-74., 1995.
15. Matsuyama Y, Ohashi Y, Uchino H, Takaku F et al : Vesnarinone-induced WBC Disorders in Japan. *Pharmacoepidemiology and Drug Safety*; 5: 87-93., 1996.
16. Sakamoto J, Teramukai S, Koike A, Ohashi Y et al : Prognostic value of preoperative Immunosuppressive Acidic Protein in patients with gastric carcinoma. *Cancer*; 77(11): 2206-12., 1996.
17. Homma Y, Kawabe K, Tsukamoto T, Yamaguchi, O, Ohashi Y et al : Estimate criteria for diagnosis and severity in benign prostatic hyperplasia. *International J. of Urology*; 3: 261-6., 1996.
18. Sato K, Nohtomi K, Shizume K, Ohashi Y et al : 17 β -Estradiol increases calcium content in fetal mouse parietal bones cultured in serum-free medium only at physiological concentrations. *Bone*; 19(3) :213-21., 1996.
19. Honda H, Shimizu Y, Misumi K, Niimi M, Ohashi Y : Cumulative incidence and prevalence of childhood autism in children in Japan. *British Journal Psychiatry*; 169: 228-35., 1996.
20. Ohashi Y, Izumoto T : Comparison of intra-subject variability for different formulation by crossover trials. *F.I.P.Bio-International'96*; 113-8., 1996.
- 21*. Kiuchi T, Konishi M, Bandai Y, Kosuge T, Ohashi Y : A World Wide Web-based user interface for a data management system for use in multi-institutional clinical trials-Development and experimental operation of an automated patient registration and random allocation system. *Controlled Clinical Trials*; 17: 476-93., 1996.
22. Kim -Motoyama H, Yasuda K, Yamaguchi T, Yamada N, Ohashi Y : A mutation of the $\beta 3$ -adrenergic receptor is associated with visceral obesity but decreased serum triglyceride. *Diabetologia*; 40: 469-72., 1997.
- 23*. Matsuyama Y, Ohashi Y : Mixed models for bivariate response repeated measures data using Gibbs sampling. *Statistics in Medicine* 1997; 16:1587-601.
24. Fukuda H, Ohashi Y : A guideline for reporting results of statistical analysis in *Japanese Journal of Clinical Oncology*. *Japanese J. of Clinical Oncology* 1997; 27(3): 121-7., 1997.
25. Ohno R, Miyawaki S, Hatake K, Kuriyama K, Ohashi Y et al : Human urinary macrophage colony - stimulating factor reduces the incidence and duration of febrile neutropenia and shortens the period required to finish three courses of intensive consolidation therapy in acute myeloid leukemia: A double-blind

- controlled study. *J. of Clinical Oncology* 1997; 15(8): 2954-65., 1997.
26. Hukuhara S, Tanabe N, Sato K, Kurokawa K, Ohashi Y : Good Clinical Practice in Japan before and after ICH: Problems and potential impacts on clinical trials and medical practice. *International J. of Pharmaceutical Medicine*; 11: 147-53., 1997.
 - 27*. Matsuyama Y, Sakamoto J, Ohashi Y : A Bayesian hierarchical survival model for the institutional effects in a multi-centre cancer clinical trial. *Statistics in Medicine*; 17: 1893-908., 1998.
 28. Akiba T, Marumo F, Owada A, Ohashi Y et al : Controlled trial of falcacitriol versus alfalcidol in suppression of parathyroid hormone in hemodialysis patients with secondary hyperparathyroidism. *American J. of Kidney Diseases*; 32(2): 238-46., 1998.
 29. Furuse K, Kawahara M, Nishiwaki Y, Ohashi Y : Phase I/II study of vinorelbine, mitomycin and cisplatin for stage IIIB or IV non-small-cell lung cancer. *Journal of Clinical Oncology* ; 17-10: 3195-200., 1999.
 - 30*. Hinotsu S, Akaza H, Kotake T, Ohashi Y : Intravesical chemotherapy for maximum prophylaxis of new early phase superficial bladder carcinoma treated by transurethral resection: A combined analysis of trials by the Japanese Urological Cancer Research Group using smoothed hazard function. *Cancer*; 86: 1818-26., 1999.
 - 31*. Matsui S, Ohashi Y : Analysis of recurrent events: Application to a clinical trial of colony stimulating factor with the endpoint of febrile neutropenia. *Statistics in Medicine*; 18: 2409-20., 1999.
 32. Akakura K, Isaka S, Akimoto S, Ohashi Y et al : Long-term results of a randomized trial for the treatment of stages B2 and C prostate cancer : Radical prostatectomy versus external beam radiation therapy with a common endocrine therapy in both modalities. *Urology*; 54-2 : 313-8., 1999.
 33. Skamoto J, Mtsuyama Y, Ohashi Y: An analysis of institutional effects in a multicenter cancer clinical trials- Is it also plausible from the clinicians' point of view-. *Japan Journal of Clinical Oncology*; 29-8: 403-5., 1999.
 34. Yamaguchi T, Ohashi Y : Investigating centre effects in a multi-centre clinical trials of superficial bladder cancer. *Statistics in Medicine*; 18-15: 1961-71., 1999.
 - 35*. Gotoh F, Ohashi Y and the Cilostazol Stroke Prevention Study group: Design and organization of the Cilostazol Stroke Prevention Study. *J. of Stroke and Cerebro-vascular Diseases*; 9: 36-44., 2000.
 36. Gotoh F, Tohgi H, Hirai S, Ohashi Y et al : Cilostazol Stroke Prevention Study : A Placebo-controlled double-blind trial for secondary prevention of cerebral infarction. *J. of Stroke and Cerebrovascular Diseases*; 9: 147-57., 2000.
 37. Takayama T, Sekine T, Makuuchi M, Ohashi Y et al : Adoptive immunotherapy to lower postsurgical recurrence rates of hepatocellular carcinoma: a randomised trial. *The Lancet*; 356: 802-7., 2000.
 38. Morikawa Y, Harada K, Asai T, Ohashi Y et al : Coronary risks after high-dose γ -globulin in children with Kawasaki disease. *Pediatrics International*; 42: 464-9., 2000.
 - 39*. Matsuyama Y, Tominaga T, Nomura Y, Ohashi Y et al : Second cancers after adjuvant tamoxifen therapy for breast cancer in Japan. *Annals of Oncology*; 11: 1537-43., 2000.
 - 40*. Kubota K, Kawabe E, Hinotsu S, Ohashi Y et al : Pilot study of Prescription-Event Monitoring in Japan comparing troglitazone with alternative oral hypoglycemics. *Eur. J. Clin. Pharmacology*; 56: 831-8., 2001.
 41. Toyoda I, Matsuyama Y, Ohashi Y : Estimation and comparison of rates of change in repeated-measures studies with planned dropout. *Controlled Clinical Trials*; 22(6): 620-38., 2001.
 42. Sakamoto J, Teramukai S, Watanabe Y, Ohashi Y et al : Meta-analysis of adjuvant immunochemotherapy using OK-432 in patients with resected non-small-cell lung cancer. *Journal of Immunotherapy*; 24(3): 250-6., 2001.
 43. Fumimoto H, Kobayashi K, Chang C H, Ohashi Y. et al : Cross-cultural validation of an international questionnaire, the general measure of the Functional Assessment of Cancer Therapy Scale (FACT-G) for Japanese. *Quality of Life Research*; 10: 701-9., 2001.
 44. Ito H, Ouchi Y, Saito Y, Ohashi Y. et al : A comparison of low versus standard dose pravastatin therapy for the prevention of cardiovascular events in the elderly: The Pravastatin Anti-atherosclerosis Trial in the Elderly (PATE). *Journal of Atherosclerosis and Thrombosis*; 8(2): 33-44., 2001.
 45. Hiraoka A, Okamoto S, Moriyama Y, Ohashi Y. et al : Phase III study comparing tacrolimus (FK506) with cyclosporine for graft-versus-host disease prophylaxis after allogeneic bone marrow transplantation. *Bone Marrow Transplantation*; 28: 181-5., 2001.
 - 46*. Ohashi Y, Nakai S, Tsukamoto T, Masumori N et al : Habitual intake of lactic acid bacteria and risk reduction of bladder cancer. *Urologia Internationalis*; 68: 273-80., 2002.
 47. Yamaguchi T, Ohashi Y, Matsuyama Y : Proportional hazards models with random effects to examine centre effects in multicentre cancer clinical trials. *Statistical Methods in Medical Research*; 11: 221-36., 2002.
 48. The EPOCH Study Group : Effects of pimobendan on adverse cardiac events and physical activities in patients with mild to moderate chronic heart failure: The effects of pimobendan on chronic heart failure study (EPOCH Study) *Circulation J.*; 66: 149-57., 2002.
 49. Samizo K, Kawabe E, Hinotsu S, Ohashi Y et al : Comparison of losartan with ACE inhibitors and dihydropyridine calcium channel antagonists. A pilot study of Prescription-Event Monitoring in Japan. *Drug Safety*; 25: 811-21., 2002.
 50. Ishizuka N, Ohashi Y : The continual reassessment method and its applications: a Bayesian methodology for phase I cancer clinical trials. *Statistics in Medicine*; 20: 2661-81., 2001.



Department of Advanced Clinical Nursing / Department of Nursing Administration

Outline and Research Objectives

The origins of the Departments of Advanced Clinical Nursing and Nursing Administration can be tracked down to the Department of Fundamental Nursing, one of four nursing departments in the School of Health Care and Nursing. In 1953, the School of Health Care and Nursing was instituted at the Faculty of Medicine, the University of Tokyo, as the second 4-year baccalaureate nursing program in Japan. In 1965, the school was reorganized and renamed as the School of Health Sciences, with a focus on health sciences education. Accordingly, the four nursing departments were integrated into one department, the Department of Nursing, which became primarily responsible for undergraduate nursing education at the school until 1992. In that year the school was again, reorganized and renamed as the School of Health Sciences and Nursing, taking on the nation-wide momentum for enhancing baccalaureate programs in nursing. Three departments, including adult health and nursing, family nursing, and community health nursing, were instituted in addition to the Department of Fundamental Nursing (formerly the Department of Nursing). In 1997, as the result of the shift to the chair system of the Graduate School of Medicine, the Department of Fundamental Nursing was reorganized into two graduate departments—the Department of Advanced Clinical Nursing and the Department of Nursing Administration—.

Currently, these two departments are also responsible for undergraduate education in the following subjects: Fundamental Nursing (introductory lectures, skills laboratory, and practicum; 10 credits in total); First Aid and Cardiopulmonary Resuscitation (1 credit); Nursing Research (2 credits); and Nursing Administration (lecture and practicum, 2 credits). The major research activities of the two departments include: studies on the links between nursing quality and patient safety and outcomes; studies on nursing management issues; the development and validation of nursing quality measurements; and physiological studies on human body responses to psychophysiological stress (e.g., patients' responses to invasive treatment, family caregivers' responses to nighttime caregiving activities).

Faculty, Staff, and Students

Professor and Chair	Katsuya KANDA, R.N., PhD. (since 2002)
Associate	2
Graduate student	7
Research student.....	4
Secretary	2

Past Research and Major Accomplishments

The author has primarily been conducting studies on nursing administration, especially on the issue of nursing quality and care delivery management. Secondly, the author has been conducting physiological studies on human body responses to psychophysiological stress and stimulus, such as invasive treat-

ment or intensive caregiving activities.

The author's initial research involvement in the area of nursing administration was a study of nursing home staffing in the United States of America (USA). In 1983, as part of the national strategies to control the ever-increasing medical expenditures in the Medicare reimbursement system, the federal government of the USA introduced the prospective payment system (PPS), utilizing the diagnosis related groups (DRGs) as the payment basis. As a result of the PPS introduction, elderly patients who were not fully recovered from their illnesses were transferred from hospitals to nursing homes. However, the tight budget situation brought about reductions in the number of nursing home staff and the quality of nursing, despite ever-increasing disease severity and care needs of nursing home residents. The author and col-

leagues analyzed the time-series data of multiple nursing homes obtained from a health data center in the state of Pennsylvania, and verified the above-mentioned issue of understaffed nursing homes.

In Japan, the author conducted a series of studies on the links between nurse staffing and patient safety and outcomes. The primary factor affecting the quality of nursing is the nurse-patient ratio. The claim that the understaffing of nurses brings about a too busy working environment for nurses to pay attentions to the details of patient care (which may cause unfavorable consequences to patients) has been an unspoken agreement among nurses for many years. The average length of hospital stay is one of the patient outcome indices that reflect the quality of healthcare and nursing. The author obtained permission from the Ministry of Health and Welfare (MHW) to use the data of "Hospital Reports" surveyed by the MHW, and analyzed the relationship between the number of "nursing staff" (including licensed practical nurses and nurses' aids) assigned per bed and the average patients' length of hospital stay. The data obtained from approximately 7,000 general hospitals were analyzed in this study. The average length of stay among hospitals with a high "nursing staff"-to-bed ratio was shorter than that of hospitals with a low "nursing staff"-to-bed ratio. The average length of stay among hospitals with a high ratio of registered nurses (RNs) to "nursing staff" tended to be shorter than that of hospitals with a low RNs-to-"nursing staff" ratio. Similar results were confirmed after variables related to hospital characteristics (which are known to have a strong link to patient characteristics) were adjusted.

The author then obtained permission from the Management and Coordination Agency to use the data of "Patient Survey" and "Survey of Medical Care Institutions" surveyed by the MHW, and analyzed the relationship between the nurse staffing level approved on the nursing fee schedule of health insurance revenue and the incidence of adverse events, such as complications. The "Patient Survey" data have two variables related to diagnostic classifications (the primary diagnosis and the secondary diagnosis, if applicable). Two nurse researchers with advanced clinical expertise independently evaluated the incidence of adverse events from approximately 295,000 in-hospital patients' survey data. Discrepancies between the two nurse researchers' evaluations were discussed and resolved by incorporating a third nurse researcher's independent evaluation. The result of this adverse event analysis was appalling: the decreased number of nurses per patient was associated with an increased incidence of adverse events; especially, the incidence of adverse events was different between hospitals with a patient-to-nurse ratio of 2.5-to-1 and hospitals with a ratio of 3-to-1.

Japan has fewer numbers of registered nurses assigned to patients in acute care hospitals compared to other developed countries. A large number of registered nurses per patient does not necessarily bring about better quality of care; however, a small number of registered nurses per patient never brings about better quality of care. The author maintains that an adequate number of registered nurses assigned per patient is a "necessity" of better quality of nursing.

In relation to studies of care management, the author and colleagues actually developed and implemented a critical pathway for patients with abdominal aortic aneurysms undergoing surgery. The authors measured the effects of the critical pathway before and after its introduction to a vascular surgical care unit at the University of Tokyo Hospital. A critical pathway is one of the patient care management tools. Multidisciplinary members involved in patient care need to participate in the process of critical pathway development, making suggestions and modifications on pathways from their clinical expertise. Nurses should clarify as to when and for which components of care they are accountable. Therefore, a study of critical pathway implementation is also a study of nursing care itself. Additionally, critical pathways are highly effective for those patients with high-risk diseases who tend to be vulnerable to multiple complications, and without adequate care management, they tend to have delayed recovery and discharge. We disseminated the study results to nurses and educated them, emphasizing that critical pathways are useful for high-risk patients, and that a comprehensive discussion among multidisciplinary team members is necessary during the process of pathway development.

One of the most serious nursing administrative issues involves the frequent uses and their side effects of physical restraint on patients. Regarding physiological studies, the author and colleagues studied the effects of physical restraint on patients via electroencephalography. Elderly healthy volunteers participating in this experimental study with a crossover design received loose physical restraints. Their electroencephalography data showed deviations from normal patterns, despite the fact that they rarely reported subjective discomfort. Nursing research also encompasses patient family members as study subjects. In order to contribute to the knowledge of interventions (the development of supporting systems) for nighttime family caregivers at home, the authors studied the sleep patterns of female family caregivers who were routinely providing nighttime care to bed-ridden elderly individuals. The authors compared their sleep patterns via electroencephalography data with those of an age-matched healthy control group. The study results confirmed that the nighttime family caregiver

group had less slow-wave sleep (deeper sleep stages) than did the control non-caregiver group.

Current Research

A nation-wide healthcare reform, including systematic renovations to the functions of healthcare facilities, is currently underway in Japan in order to improve the efficacy of healthcare delivery systems. Given this situation, healthcare facilities are being classified into two levels: acute care and long-term care facilities. Nurses at long-term care settings need to assume a role different from that of acute care settings. For example, a high proportion of physically dependent or mentally impaired residents (as opposed to residents with medical needs), and a high proportion of care workers who are responsible for residents' personal care and assistance in their daily life activities are characteristic to long-term care settings. The authors have just completed part of a survey involving nurses' roles, clinical expertise, job assignment and sharing in relation to care workers, and staffing levels necessary to maintain a good quality of care at long-term care settings, such as health services facilities for the elderly or sanatorium-type wards of hospitals.

The history of research on nursing care quality and the methods of quality evaluation are very new to Japan; the availability of such data is very limited. The authors are conducting studies to identify and establish patient outcome indicators that have: (1) known empirical or theoretical strong links to the quality of nursing; (2) reliable and accurate information widely available to the majority of facilities; and (3) ease of measurement or ease of access to information sources. The authors are also attempting to standardize data collection methods of such quality indicators. The authors conducted a pilot study at a facility, identified quality indicators meeting the above-mentioned criteria, and developed a trial version of standardized data collection methods. A follow-up study at multiple sites is underway in order to validate the utility of these indicators and methods.

Regarding studies on critical pathways, the authors are currently conducting a study to examine the utility of critical pathways in rehabilitation settings in addition to acute care settings. Specifically, the authors are conducting a study of critical pathways for patients with hip fractures undergoing surgery, comparing the data from multiple sites regarding the entire process of introduction and revisions of critical pathways, and the efficacy of the process.

Regarding studies of physical restraint, the authors are examining an application of alternative and complementary therapies that are recently attracting public attention as a method of alleviating psychological stress. When physical restraints are unavoidable with

an understanding of their risks and unfavorable effects, can we alleviate the psychosomatic distress of patients who are under restraint by using aroma therapy? We conducted an experimental study with a control group in order to measure the relaxing effects of lavender aroma on individuals under physical restraint. Currently, we are analyzing the electroencephalography and electrocardiography data. Additionally, we are conducting a study to compare the effects of the chair-sitting position (with the upper body upright and detached from the back of a chair) and of the wheelchair-reclining position (with the upper body reclined on the back of a wheelchair) on activities in the autonomous nervous system. Part of the literature and practice guidelines suggest the use of the chair-sitting position instead of the widely and frequently used wheelchair-reclining position for physically dependent or mentally impaired elderly individuals. Some evidence supports the notion that the wheelchair-reclining position, given that the upper body is totally reclined onto the back of the wheelchair, may decrease their ability to maintain their body position, or may decrease activities in the autonomous nervous system (as well as mental alertness).

Future Prospects

First, the long-term objective of research on nursing administration includes the development and validation of standardized methods and measurements (indices) of patient outcomes related to the quality of nursing. A nation-wide database of nursing quality indicators should be developed, starting off with inviting a certain number of hospitals willing to participate in the study. Continuous quality improvement in healthcare and nursing involves organizational efforts to identify their own national rankings and to renovate themselves through system-wide learning and changing. Such efforts of national database development and benchmarking would enable comparisons among organizations and would provide opportunities for them to learn from top-ranked organizations. When the nursing profession establishes such a national database of quality indicators, the author believes that this profession would be able to take political action and make suggestions with convincing evidence to the government regarding concrete strategies for improving the quality of nursing. The author would also like to conduct studies on the reliability and sensitivity of quality indicators in order to increase the validity of the comparisons.

Secondly, nursing research must provide convincing evidence that nursing can contribute to the health promotion of individuals/family/community (or the optimization of their health experiences), so that the efficacy of nursing is reasonably recognized by the

public. The effectiveness of nursing, including patients' psychophysiological responses to care, tended to be addressed more by anecdotal experiences than by scientific studies providing evidence. "Evidence-based nursing" is currently a widely-used catch phrase in Japan; however, the evidence regarding the effectiveness of care is still very weak. The author believes that the Departments of Advanced Clinical Nursing and Nursing Administration, which are responsible for the fundamentals of nursing and skills laboratories in undergraduate education, are also responsible for conducting studies on the efficacy of nursing. With respect to critical pathways, many retrospective studies have been conducted so far by nurse researchers in Japan. The author is planning to conduct a prospective and comparative study on the effectiveness of critical pathways in order to obtain more reliable and convincing evidence than that previously obtained. The author believes that randomized comparative studies from multiple sites are necessary to conduct in the future.

Finally, nursing informatics is one of the areas of research and education still underdeveloped in these departments. The author strongly believes that research and educational programs of nursing informatics need to be developed in the future because of the following reasons: (1) The implementation of a better quality of nursing and an evaluation on its outcomes involves the development of evaluation criteria and standards on the performance and quality of nursing, and the actual implementation of evaluation measures and procedures, thus ensuring accurate and high-quality information on healthcare and its administration; and (2) The study of nursing informatics lays the foundation of practice, administration, education and research in nursing. Informatics in nursing provides meaningful links among these areas and promotes development in each of these areas of nursing.

Research Grants

1. Principal Investigator: Physical Restraint of the Elderly in Institutional Care Setting and Alternatives to Restraint Use. Grant-in-Aid for Scientific Research, funded by the Ministry of Education, Science and Culture, 1996-1997.
2. Principal Investigator: Economic Evaluation of Nursing Services. Grant-in-Aid for Health Sciences Research, funded by the Ministry of Health and Welfare, 1996-1998.
3. Principal Investigator: Nurse Staffing and Nurses' Job by Type of Healthcare Facility. Grant-in-Aid for Health Sciences Research, funded by the Ministry of Health and Welfare, 1999-2001.
4. Principal Investigator: Effect Verification of Development and Implementation of Critical Pathway for Hip Fracture. Funded by Japanese

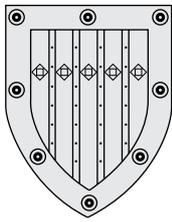
Nursing Association, Project of Promotion of Infrastructure Improvement for Nursing Policy Planning, 2001.

Select Publications

1. Minamisawa H, Takeo K, Kanda K. Body positions and heart rate: focusing on patient's daily life. *Nursing* 33(12): 44-51, 1981. (in Japanese)
2. Tagami Y, Hatano H, Hashimoto M, Kanda K, Tanaka T. A study on the distribution of medical facilities in small cities. *Hospital Administration* 19: 257-284, 1982. (in Japanese)
3. Takeo K, Minamisawa H, Kanda K, Hasegawa S: Heart rates during the daily activity of "Zen" priests. *Journal of Human Ergology* 13: 83-87, 1984.
4. Kanda K. Promotion of home care and visiting nursing. *The Tokyo Journal of Medical Science* 95: 387-390, 1988. (in Japanese)
5. Takeo K, Minamisawa H, Kanda K, Tukamoto M, Kimura K, Mori Y, Ishida M, Watanuki S. Daily activity and food intake in patients with senile dementia. *Annual Report of Sasakawa Health Science Foundation*, 5(2), 103-112, 1989. (in Japanese)
6. Kanda K, Minamisawa H. How do nurse practitioners use their time? In "The Improvement of the Quality of Nursing Care by Introducing Primary Nursing," Report of Grant-in-Aid for Scientific Research from the Ministry of Education, Science and Culture (pp. 65-82), 1990. (in Japanese)
7. Kanda K, Mezey M: Registered nurse staffing in Pennsylvania nursing homes: Comparison before and after implementation of Medicare's Prospective Payment System. *Gerontologist* 31: 318-324, 1991.
8. Kanda K, Maitoko M, Shimada Y, Takenawa N, Awaya N, Mitoh M. How much are nurses performing other health care professionals' duties in hospitals? *Japanese Journal of Nursing Administration* 1: 371-376, 1991. (in Japanese)
9. Kanda K, Takahashi M, Fujieda C. Nurse staffing at outpatient clinics. *Japanese Journal of Nursing Administration* 2: 55-61, 1992. (in Japanese)
10. Kanda K, Takahashi M, Fujieda C. Activities and functions performed by nurses in ambulatory care setting. *Japanese Journal of Nursing Administration* 2: 179-185, 1992. (in Japanese)
11. Fujieda C, Takahashi M, Bojo N, Miyamoto A, Kanda K. A survey on the levels of staffing by nurses in hospitals. *Japanese Journal of Nursing Administration* 2: 307-311, 1992. (in Japanese)
12. Kanda K, Fujieda C, Takahashi M, Bojo N, Miyamoto A. Nurse staffing mechanism with relevance to case mix of patients. *Japanese Journal of Nursing Administration* 2: 363-370, 1992. (in Japanese)
13. Kanda K, Takahashi M, Fujieda C, Bojo N, Miyamoto A. Actual condition of hospital structure and equipment influencing nursing service. *Japanese Journal of Nursing Administration* 3: 52-55, 1993. (in Japanese)
14. Kanda K. Trend of registered nurse staffing in nursing homes. Report of Research Activities by

- Sasakawa Health Science Fellowship Grantees, 7-17, 1993. (in Japanese)
15. Maitoko M, Kanda K. Factors effecting medication errors. *Journal of Japan Academy of Nursing Science* 13(2): 29-36, 1993. (in Japanese)
 16. Kanda K, Kusakari J, Awaya N. A study on the characteristics and length of employment of nonrotating-shift night nurses. *Hospital Administration* 30: 215-222, 1993. (in Japanese)
 17. Mitoh T, Takeo K, Minamisawa H, Kanda K, Hirose H. A study to determine necessity of QOL and ADL evaluation and care of institutionalized senile elderly. Report of Grant-in-Aid for Scientific Research from the Ministry of Education, Science and Culture, 1993. (in Japanese)
 18. Maitoko M, Kanda K. An approach to evaluation of quality of nursing, focusing on medication errors. *Japanese Journal of Nursing* 58: 122-125, 1994. (in Japanese)
 19. Kanda K. Proportion of high-acuity patients according to hospital characteristics. *Journal of Japan Academy of Nursing Science* 15(4): 9-14, 1995. (in Japanese)
 20. Kanda K, Watanuki S, Kunioka T, Tama E, Kojima Y. The development and increased use of machinery and equipment in nursing: Current availability and usage. *Japanese Journal of Nursing Administration* 6: 742-747, 1996. (in Japanese)
 21. Kanda K, Watanuki S, Kunioka T, Tama E, Kojima Y. The development and increased use of machinery and equipment in nursing: Issues related to future development and increased usage. *Japanese Journal of Nursing Administration* 6: 834-841, 1996. (in Japanese)
 22. Sakaguchi M, Kanda K, Sakai I, Chen JX, Tamura Y, Shiga Y, Takeo K: Survey on the care needs of persons with health problems and their families living in urban areas of Japan. *Journal of Shiga Academic Society of Nursing Science* 1: 15-19, 1996.
 23. Kanda K, Koike J. Predicting quantity of care needs and nursing intensity. In "Measuring Care Needs of Patients in Medical Care Institutions," Report of Grant-in-Aid for Health Sciences Research from the Ministry of Health and Welfare (pp. 29-35), 1996. (in Japanese)
 24. Kanda K, Sato R, Nagata A. Effects of intermittent wakening on sleep pattern of nighttime caregiver: An EEG study with a single subject. *Journal of Japan Academy of Nursing Science* 17(1): 75-81, 1997. (in Japanese)
 25. Kojima M, Horiuchi S, Ota K, Oikawa I, Kaharu C, Nomura M, Toyomasu K, Hatono Y, Kanda K, Tanaka Y. A study of nursing systems in transition in developed countries. *Bulletin of St. Luke's College of Nursing* 23: 49-68, 1997. (in Japanese)
 26. Kanoya Y, Domon Y, Sato R, Kanda K. The nurses' contribution to the quality improvement of care under the health care policy to contain costs: a review. *Japanese Journal of Nursing Administration* 7: 668-675, 1997. (in Japanese)
 27. Kanda K. Association of nursing service with length of hospital stay of patients. *Japanese Journal of Nursing* 61: 1018-1022, 1997. (in Japanese)
 28. Sato R, Osaka Y, Nomura I, Fuse S, Kanda K. Nurses' selection of analgesics and the frequency of their administration to the patients in 24 hours after transcatheter arterial embolization, transcatheter arterial infusion, and transcatheter hepatic angiography. *Japanese Journal of Nursing Arts* 44: 1001-1006, 1998. (in Japanese)
 29. Watanuki S, Kanda K, Kimura K, Minamisawa H, Mori Y, Takeo K, Tsukamoto M. Body weight loss and BMI(Body Mass Index) decrease of hospitalized elders with senile dementia. *Journal of Japan Academy of Nursing Science* 18(2): 51-62, 1998. (in Japanese)
 30. Sato R, Kanda K, Nagatomo M, Kusakari J. Relationships between task performance of visiting care agencies and physicians' orders. *Hospital Administration* 35: 177-184, 1998. (in Japanese)
 31. Matsumoto A, Kanda K. Concept and effects of discharge planning. *Japanese Journal of Nursing Arts* 44: 710-713, 1998. (in Japanese)
 32. Kanda K. Physical Restraint of the Elderly in Institutional Care Setting and Alternatives to Restraint Use, Report of Grant-in-Aid for Scientific Research from the Ministry of Education, Science and Culture, 1998. (in Japanese)
 33. Nagatomo M, Kanda K, Sato R, Kusakari J. Relationship between physicians' orders and nurses' service sphere of activity -- a comparison between home health care agencies and university hospitals. *Hospital Administration* 36: 5-16, 1999. (in Japanese)
 34. Kanda K, Sato R, Kodama S, Takemura Y, Matsumoto A. Relations between nurse-staffing levels and adverse outcomes. In "Economic Evaluation of Nursing Services," Report of Grant-in-Aid for Health Sciences Research from the Ministry of Health and Welfare (pp.16-41), 1999. (in Japanese)
 35. Sato R, Kanda K, Anan M. Sleep patterns of middle-aged and older female family caregivers providing routine nighttime care for elderly individuals at home. *Journal of Japan Academy of Nursing Science* 20(3): 40-49, 2000. (in Japanese)
 36. Kanda K, Takemura Y. Research agenda for critical pathways. *Japanese Journal of Nursing Research* 33: 221-230, 2000. (in Japanese)
 37. Kanda K, Sato R, Matsumoto A, Yamagishi M, Takemura Y. Nurse Staffing and Nurses' Job by Type of Healthcare Facility -- Job and Role Expectations of Nurses in Health Services Facilities for the Elderly, Report of Grant-in-Aid for Health Sciences Research from the Ministry of Health and Welfare, 2000. (in Japanese)
 38. Zhao H, Kanda K. Translation and validation of the Standard Chinese version of the EORTC QLQ-C30. *Quality of Life Research* 9: 129-137, 2000.
 39. Takemura Y, Kanda K. The elements and the process of 'good nursing practice' perceived by nurses.

- Japanese Journal of Nursing Research 34: 329-339, 2001. (in Japanese)
40. Kanda K, Sato R, Emori K, Takemura Y, Matsumoto A, Ogawa R. Nurse Staffing and Nurses' Job by Type of Healthcare Facility -- Role and Job of Nurses in General Clinics, Report of Grant-in-Aid for Health Sciences Research from the Ministry of Health and Welfare, 2001. (in Japanese)
 41. Kanda K, Zhao H, Takahashi Y. Quality of life in Chinese patients with gynecological cancer. Proceedings of the 2nd Conference on Nursing Education & Research between School of Nursing, Seoul National University and School of Health Sciences & Nursing, The University of Tokyo : 6-10, 2001.
 42. Kawana N, Ishimatsu S, Kanda K. Psycho-physiological effects of the sarin attack on the Tokyo subway system. *Military Medicine* 166 Suppl. 2:23-26, 2001.
 43. Ibe T, Ichiduka K, Kawano R, Kanda K, Moriwaki M, Yanagisawa H. Actual Condition of Nurses as Clinical Research Coordinators: Comparison of the Results Surveyed in 1998, 1999 and 2000. *Japanese Nursing Association*, 2001. (in Japanese)
 44. Kanda K, Takemura Y, Ogawa R, Yamagishi M, Kodama S. Nurse Staffing and Nurses' Job by Type of Healthcare Facility -- Role and Job of Nurses in Sanatorium-type Wards of General Hospitals, Report of Grant-in-Aid for Health Sciences Research from the Ministry of Health and Welfare, 2002. (in Japanese)
 45. Yamagishi M, Kanda K, Takemura Y. Development of methods for detecting occurrences of adverse events as nursing quality indicators. *Journal of Japan Society for Health Care Management* 3: 363-369, 2002. (in Japanese)
 46. Matsumoto A, Kanda K, Shigematsu H. Development and implementation of a critical pathway for abdominal aortic aneurysms in Japan. *Journal of Vascular Nursing* 20:14-21, 2002.
 47. Kanda K, Ozawa M, Irimura R. Allocation of nursing time at university hospitals in Japan. *Journal of Nursing Studies National College of Nursing, Japan* 1: 17-26, 2002.
 48. Kanda K, Kodama S. Determinants of nursing service in urban public hospitals: An economic perspective. *Nursing and Health Sciences* 4: 63-72, 2002.
 49. Takemura Y, Kanda K, Matsumoto A, Yamagishi M. Role expectations of nurses in health service facilities for the elderly. *Nursing and Health Sciences* 4: 73-83, 2002.
 50. Sato R, Kanda K, Anan M, Watanuki S. Sleep EEG patterns and fatigue of middle-aged and older female family caregivers providing routine nighttime care for elderly persons at home. *Perceptual and Motor Skills* (in press).



Department of Adult Nursing / Terminal and Long-term Care Nursing

Outline and Research Objectives

The origin of the Department of Adult Nursing /Terminal and Long-term Care Nursing was "Department of Adult Health" in the School of Health Sciences (1965-1992), and after that "Department of Adult Health and Nursing" in the School of Health Sciences & Nursing (1992-).

From 1995 to 1997, the Graduate School of Medicine shifted to the chair system of Graduate Schools, and our new two departments were established. The members of two departments cooperate in education and research together.

Our major research objectives are concerning followings issues.

1. Cancer Nursing
2. Adult Health Nursing
3. Nursing Care System for Outpatients
4. Evaluation of Palliative Care Services
5. Spiritual Care for Terminally Ill Persons and Their Families
6. Continuity in Palliative Care System
7. Dissemination of Palliative Care
8. Methodology of Nursing Research and Education

Faculties and Students

Professor and Chair	Keiko Kazuma, M. of Hlth.Sc., The Univ. of Tokyo, School of Health Sciences, 1976; Dr. Hlth.Sc., The Univ. of Tokyo, 1989. Since 1999
Lecturer	Masako Kawa, M. of Hlth.Sc., The Univ. of Tokyo, School of Health Sciences, Since 1996
Associate	2
Postdoctoral Fellow	4
Graduate student	14 (Dr. program;6, Ms. program;8)
Research student.....	7
Secretary	1

Past Research and Major Accomplishments

1. Cancer Nursing

One of the main subjects of our cancer nursing research is cancer risk counseling, especially in genetic counseling of patients and /or kindred of patients with familial cancer syndrome, expressed in adulthood. In genetic counseling, ethical consideration is very important for application of gene testing. At present, prophylactic surgery is the first choice as a

preventive strategy for familial cancer syndrome expressed in adulthood. We have studied clients' needs and the role of nurse-counselors, based on their background of familiarity and practical experiences with perioperative management and intervention for adaptation to the patients' altered intestinal structure after surgery. We developed a decision tree for the process of cancer risk counseling based on the foreign literature and our clinical experience with familial adenomatous polyposis family. The decision tree was agreed with peer group of cancer genetic counseling and is introduced in seminars for familial cancer counselors.

Another concern is intervention to facilitate adaptation after cancer surgery. We developed a measurement scale for feeling of stability in daily life with a stoma for people with a permanent colostomy because of malignancy, and explored the factors influencing the feeling of stability. The results showed that the frequency of the stoma clinic and support from nurses contributed to that feeling

2. Adult Health Nursing

The domain of adult health nursing contains work concerning health promotion and symptom management. For the former, a brisk walking program was applied for the middle nurse managers, a group that tends to lack of exercise. Several positive effects in

serum characteristics were approved in the intervention group compared to control group.

The subjects of symptom management research were patients who underwent surgery for gastrointestinal disease or inflammatory disease. After gastrectomy, we found that increased symptoms were related to changes in eating behavior associated with return to the workplace, and it was suggested the necessity of intervention after discharge. A measurement scale was also developed to evaluate difficulties in daily life after surgery for oral tumor.

The subjects of symptom management for inflammatory disease were patients with ulcerative colitis (UC) or rheumatoid arthritis (RA). UC patients experience difficulties in daily life related to decreased vigor and altered defecation. We developed an instrument to measure the difficulties of life, and explored the factors influencing it. For RA patients, a series of studies was carried out on association with fatigue, coping behavior, and nutrition, and an exploratory study was implemented on home exercise and the factors influencing it.

3. Nursing Care System for Outpatients

Recently, nurses' role in hospital outpatient departments and in home care settings has been changing dramatically, because of the shortening of hospital stays, changes in types of disease, and increasing elderly population. Several surveys were conducted on nurses' recognition of the care needs of outpatients, evaluation of nurses' activities for outpatients, and fact-finding about consultation and teaching activities by nurses throughout Japan (dental university hospital, and all hospitals above 200 beds).

4. Evaluation of Care Services in Palliative Care Institutions

It was difficult to investigate quality of life in vulnerable patients, so that it was assumed that the effectiveness of palliative care could be clarified by clinical audit, which is the systematic critical analysis of the quality of clinical care by the audit tool instead of the QOL questionnaire. Therefore research by the audit tool was instituted. The feasibility of the Support Team Assessment Schedule (STAS) and Edmonton Symptom Assessment System (ESAS), developed abroad as an audit tool, was examined in two palliative care units. In this study we collaborated with a research group investigating the reliability and validity of the Japanese version of the STAS.

5. Spiritual Care for Terminally Ill Persons and Their Families

This theme resulted from the spiritual pain discovered in reviewing patients' complaints of distressing conditions recorded on their charts. The study on

spirituality was undertaken as collaborative research with other universities. After a literature review, interviews were conducted with patients admitted to palliative care units, and the data from the interviews were analyzed by Grounded Theory Approach.

6. Continuity in the Palliative Care System

We used a questionnaire to investigate the status and needs of people attending hospice clinics. The results showed that consultation in which patients decide where to stay should be provided at an appropriate time before referral to a palliative care institution.

7. Promotion of Palliative Care;

A member of the teaching staff of our department joined the working group on "Attitudes toward terminal care" in research implemented by the Ministry of Health and Welfare in 1998. The results showed that palliative care needed to be further understood by both the general public and the clinical staff. We subsequently conducted a survey of nurses working in general hospitals to investigate the difficulties encountered in the care of terminally ill cancer patients and related factors.

8. Methodology of nursing research and education;

This contains several issues, including surveys and critiques for application of statistical techniques in nursing research, review of utilization of the concentric circle model of body extremities as a non-invasive measurement tool, and concerning the nursing process, nursing diagnosis, and terminology in nursing.

Current Research

1. Cancer Nursing;

To establish nurses' role in cancer genetic counseling in Japan, we have joined a research project with MDs in a continuous study group.

Negotiations concerning to a prospective cohort study of people with a stoma is in progress with the aim of collaboration between our group and other institutions concerning the process of how to acquire a feeling of stability

2. Adult Health Nursing

Concerning about health promotion, we started a collaborative research program on physical activity and physical component in frail elderly with a Korean group at Seoul National University to promote health.

Symptom management research is conducted in UC patients after total colectomy. Difficulties in a tem-

porally ileostomy period are focused on. We are analyzing the cross-sectional data from 84 patients whether related or not to body weight loss in that period. And despite of case studies with a few patients, we ascertained that body weight loss and hypoglycemia were not appeared in patients for whom educational intervention was period about how to eat in that period.

3. Nursing Care System for Outpatient

Nursing function and efficiency in hospital outpatient department is being surveyed with diabetics not using insulin as the model, and a prospective cohort study is being planned.

4. Evaluation of Palliative Care Services

The study of the reliability and validity of the Japanese version of the STAS has just been completed. We are now preparing a booklet to encourage use of this tool in clinical settings. We are also participating in a study group that is establishing evaluation criteria according to the peer review method developed in the UK.

5. Spiritual Care for Terminally Ill Persons and Their Families

Interview data are being analyzed and some of the results are being prepared for submission to a foreign journal. Next, we must plan a study on appropriate spiritual care for terminally ill persons.

6. Continuity in the Palliative Care System

We obtained a grant for Day Care research. Preparation for needs assessment prior to development of a day care program is in progress. Research on consultation and support for patients discharged from cancer centers is also continuing.

7. Promotion of Palliative Care;

Barriers to palliative care are being examined to promote palliative care in general practice. In addition, research on palliative care for other chronic illnesses is being planned.

8. Methodology of nursing research and education

Projects of terminology in nursing are being continued in International Classification of Nursing Practice (ICNP) and nursing actions in Japan.

Future Projects

Both departments intend to continue to develop current research projects. A new project is being considered: making the measurement scales we developed available on our homepage. This project will be

very useful in refining the scales and compiling clinical data.

Research Grants

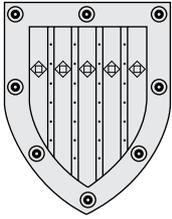
1. Keiko Kazuma: The Ministry of Education, Culture, Sports, Science and Technology (MEXT), Grant-in-aid for Scientific Research (C); The Development of Nursing strategy for the postoperative patients with lower gastro-intestinal Diseases (2,300,000 yen, Representative researcher, 2000-2003).
2. Keiko Kazuma: The Ministry of Health, Labor and Welfare (MHLW), Grant-in-aid for Scientific Research; Nursing function of outpatient department in hospital for chronically ill people (6,500,000 yen;2002, Collaborative researcher, 2002-2003).
3. Keiko Kazuma: Japan Society for the Promotion of Science (JSPS), The Japan-Korea Basic Scientific Cooperation Program; A Comparison of Bio-psychosocial status related to Physical Activity of the Elderly between Korea and Japan: Biophysical Index, Health status, Competence of Daily Activity and Depression. (2,400,000 yen, Representative researcher, 2002-2004).
4. Masako Kawa : The Mitsubishi Foundation, Grant for Social Welfare Activities and Research; Basic study on the development of spiritual care for the well-being of terminally ill patients with cancer. (2,000,000 yen, 2000-2001.)
5. Masako Kawa : Japan Society for the Promotion of Science (JSPS), Grant-in-aid for Scientific Research (C); The development of palliative day care program for the persons with advanced cancer. (3,900,000 yen, Representative researcher, 2002-2004.)

Select Publications

1. Imamura Y, Ozawa T, Miyashita M, Kawa M, Kojima M. Consultation service at hospice clinic and information given at referrals on hospice and palliative care: The attitude among terminally ill patient with cancer and family members. *J Jpn Soc Cancer Nurs* 13(2): 60-68., 1999. (in Japanese)
2. Ojima T, Nakamura Y, Hashimoto S, Miyashita M, Hayashi M, Kato M, Matsumura Y, Fukutomi K. The development of the regional health and welfare indexes. *Journal of Health and Welfare Statistics* 46(15): 3-9., 1999.(in Japanese)
3. Takeda Y. Parents' attitudes to predictive genetic testing in their children for familial adenomatous polyposis. *The Ochanomizu Medical Journal* 47(3): 129-146., 1999. (in Japanese)
4. Koike T. The relationship between fatigue and nutritional status in patients with rheumatoid arthritis. *The Ochanomizu Medical Journal* 48(3·4): 95-107., 2000. (in Japanese)
5. Furuse K, Kawahara M, Nishiwaki, Fukuoka M, Takada M, Miyashita M, Ohashi Y. Phase I/II study of vinorelbine, mitomycin, and cisplatin for stage

- IIB or IV non-small-cell lung cancer. *Journal of Clinical Oncology* 17(10): 3195-3200., 1999.
6. Ito N, Miyashita M, Kojima M. The self-care ability and medical/social support in ostomates. *J Jpn Soc Cancer Nurs* 1999. 13(1): 25-34., (in Japanese)
 7. Miyashita M, Hashimoto S, Kawa M, Kojima M. Attitudes towards terminal care among the general population and medical practitioners in Japan. *Japanese Journal of Public Health* 46(5): 391-400., 1999. (in Japanese)
 8. Matsumura Y, Nakamura Y, Hayashi M, Kato M, Miyashita M, Ojima T, Hashimoto S, Fukutomi K. Prefectural differences of the proportion of the smoking population. *Journal of Health and Welfare Statistics* 46(6): 23-28., 1999. (in Japanese)
 9. Miyashita M, Hashimoto S, Ojima T, Nakamura Y, Hayashi M, Kato M, Fukutomi K. An estimation of the proportion of handicapped people and health expectancy for aged person: prefectural estimation based on existing health statistical resources. *Journal of Health and Welfare Statistics* 46(5): 25-29., 1999. (in Japanese)
 10. Hashimoto S, Miyashita M, Tsuji I, A comparison of calculation method for health expectancy. *Journal of Health and Welfare Statistics* 46(4): 12-16., 1999. (in Japanese)
 11. Hayashi M, Hashimoto S, Kato M, Ojima T, Nakamura Y, Miyashita M, Fukutomi K. The importance or regional health and welfare indexes. *Bulletin of Fukushima school of nursing* 1: 33-38., 1999. (in Japanese)
 12. Kazuma K, Kawagoe H, Kawamura S, Yamazaki M. Development of the nursing protocol for management of medical treatment in home care, (1) The fact finding study of visiting nurse station providing management of medical treatment. *Kango* 51: 110-116., 1999. (in Japanese)
 13. Kazuma K, Kawagoe H, Kawamura S, Yamazaki M. Development of the nursing protocol for management of medical treatment in home care, (2) The fact finding study of visiting nurse station providing management of medical treatment. *Kango* 52: 108-114., 1999. (in Japanese)
 14. Kitano K, Kawamura S, Kazuma K. A study on working women caring for their husbands with an intractable disease. *J J Intrac Ill Nurs* 3: 53-66., 1999. (in Japanese)
 15. Mizuno Y, Ogura A, Kawamura S, Kazuma K. Study on planning and nursing management for safe outside activities for ventilator-assisted-individuals. *J J intrac Ill Nurs*, 3: 42-52., 1999. (in Japanese)
 16. Amano S, Kawamura S, Kazuma K, Ushikubo M. Protocol of pressure ulcers management in home health care-algorithm of nutritional assessment and management. *J Jpn Acad Home Health Care*, 2: 51-59., 1999. (in Japanese)
 17. Kazuma K. Utilization of the concentric circle model in clinical nursing: a Review. *Journal of Medical and Dental Sciences*. 46(4): 139-143., 1999.
 18. Takeda Y, Kazuma K. The nurses' role in cancer genetic testing and counseling. *Nursing Today*, 14: 72-74., 1999. (in Japanese)
 19. Kazuma K. The Current of nursing process and nursing diagnoses. *Jpn Nurs Admin*, 9: 671-677., 1999. (in Japanese)
 20. Kawa M. Supporting the bereaved family. In Ohba M, Endo E, and Inayoshi M (eds.). *The new cancer nursing*, Brain Press, Tokyo 361-365., 1999. (in Japanese)
 21. Kawa M. The subjects to be studied in palliative care. In Ohba M, Endo E, and Inayoshi M (eds.). *The new cancer nursing*, Brain Press, Tokyo 366-374., 1999. (in Japanese)
 22. Kazuma K, Takeda Y: Genetic counseling in cancer nursing, in Ohba M, Endo E, Inayoshi M (eds.). *New cancer nursing*, Brain Press., 59-71., 1999. (in Japanese)
 23. Okusaka k, Kazuma K. Investigation of changes in symptoms and eating behavior associated with the return to the workplace of postgastrectomy patients. *J Jpn Acad Nurs Sci* 20(3): 60-68., 2000.
 24. Koike T, Kazuma K, Kawamura S. The relationship between fatigue, coping behavior, and inflammation in patients with rheumatoid arthritis. *The Japan Rheumatism Association and Springer-Verlingere Tokyo 2000. Mod Rheumatol*. 141-149, 2000.
 25. Hashimoto M, Koike T. Development of instrument to measure difficulties of life in patients with ulcerative colitis. *The Ochanomizu Medical Journal* 48(2): 71-76., 2000 (in Japanese)
 26. Aoki H, Sakai E. Proposal of a measurement scale to evaluate difficulties of daily life in patients after surgery of oraltumor. *The Ochanomizu Medical Journal* 48(2): 63-70., 2000.(in Japanese)
 27. Koyama C, Kawa M, Kasahara Y. Progression of disease and process of psychological change of terminally ill patients with cancer, An analysis of medical and nursing charts. *Japanese Journal of Clinical Thanatology* 5(2): 85-91., 2000. (in Japanese)
 28. Koike T, Kazuma K. Recognition by nurses of the need for outpatient consultation and guidance, and challenge for the future. *J Jpan Acad Nurs Admin Policies* 4(1): 23-32., 2000. (in Japanese)
 29. Kazuma K, Yokomura T, Hara M, Aoki H, Okamoto N. Practice and evaluation of primary nursing in outpatient department. *J Jpan Acad Nurs Admin Policies* 4(1): 34-38., 2000. (in Japanese)
 30. Kato M, Hashimoto S, Miyashita M, Hayashi M, Nakamura Y, Ojima T, Matsumura Y, Fukutomi K. The transition of elderly welfare policy differences in prefectures and municipalities. *Journal of Health and Welfare Statistics* 47(4): 8-13., 2000. (in Japanese)
 31. Ushikubo M, Kazuma K. Research and challenge for the care of chronically ill people. *J J Nurs Res* 33: 203-211., 2000. (in Japanese)
 32. Takeda Y, Kazuma K. Family cancer and nursing. *Gastroenterolog Surg Nurs* 15: 205-211., 2000. (in Japanese)

33. Sato M. How to assessment defecation dysfunction and how to approach these patients. *The Japanese Journal of Nursing Art* 46(11): 26-32., 2000. (in Japanese)
34. Kawa M. The nursing role in palliative care. In: Higashiha M and Kondo M (eds.). *Palliative Care. Nursing QOL Books*. Igakushoin. Tokyo 117-128., 2000. (in Japanese)
35. Kazuma K. Risk counseling for familial cancer. *Journal of Family Tumor* 1(1): 9-15., 2001. (in Japanese)
36. Hayakawa E, Ushikubo M, Kawamura S, Kazuma K, Yuasa S, Takagi K. Analysis of the activity of the medical counseling services for intractable illnesses(Nanbyo) of the Tokyo medical association. *Jpn J Prim Care* 24(3): 189-196., 2001. (in Japanese)
37. Okano Y, Okamura H, Watanabe T, Narabayashi M, Katsumata N, Ando M, Adachi I, Kazuma K, Akechi T, Uchitomi Y. Mental adjustment to first recurrence and correlated factors in patients with breast cancer. *Breast Cancer Res Treat* 67(3): 255-262., 2001.
38. Murakami Y, Gondo N, Okamura H, Akechi T, Uchitomi Y. Guilt from negative genetic test findings. *Am J Psychiatry* 158(11): 1929., 2001.
39. Kazuma K. The relationship between fatigue and nutritional status in patients with Rheumatoid Arthritis. *The international conference*. Tokyo University, Oita University & S.N.U. Seoul: 109-112., 2001.
40. Agata T, Kawa M. Research on medicine and nursing. In Agata T. (ed.), *PubMed, Impact Factor for EBM*. Chugaiigakusha, Tokyo:1-20., 2001. (in Japanese)
41. Takeda Y, Kazuma K. Practice of genetic nursing; cancer. In Andou H. et al (eds.), *Genetic Nursing*. Ishiyaku Publishing Co., 108-118., 2001. (in Japanese)
42. Imamura Y. Hospice home care. *Kango* 53(10): 98-102., 2001. (in Japanese)
43. Takeda Y. Need of the support system for family members with hereditary cancer. *The Japanese Journal of Nursing* 65(10): 948-951., 2001. (in Japanese)
44. Aoki H, Ohta K, Kazuma K. The current status and problems of nursing for outpatients department of oral surgery of dental university hospitals in Japan. *The Journal of the Stomatological Society, Japan* 69(2): 9-14., 2002. (in Japanese)
45. Emoto A. A study on the long-term effects and contributing factors of pelvic floor muscle exercise in women with stress urinary incontinence. *The Ochanomizu Medical Journal* 50(1): 19-34., 2002.(in Japanese)
46. Watanuki E. Nursing staff's understanding of their liability in nursing practice. *Jpn Nurs Res* 25(2): 61-69., 2002. (in Japanese)
47. Sato N, Kato A, Sugimura H. Physician's level of knowledge regarding genetic counseling in the field of clinical genetics. *Journal of Familial Tumor* 2(1): 20-25., 2002. (in Japanese)
48. Imamura Y, Kawa M, Kayama M, Mizuno M, Otsuka M, Murata H. Conceptual structure on spirituality in end-of-life patients with cancer. *The Japanese Journal of Hospice and Palliative Care* 12(5): 425-434., 2002. (in Japanese)
49. Kawa M, Koyama C, Imamura Y, Miyashita M, Ashiya T, Kasahara Y. Physical state and psychological expression of terminally ill patients with cancer in a palliative care unit. *The Japanese Journal of Clinical Thanatology* 7(1)., 2002. (in press)
50. Furukawa F, Kazuma K, Kawa M, Miyashita M, Niiro K, Kusukawa T, Kojima M. Effects of an off-site walking program on energy expenditure, serum lipids, and glucose metabolism in middle-aged women. *Biological Research for Nursing* 4(3)., 2002. (in press)



Department of Family Nursing

Outline and Research Objectives

The Department of Family Nursing was established in April 1992 and was started at October 1992 when Dr.Sugishita had a position of Professor of Family Nursing. Currently, it has four faculty members; one professor, one associate professor and two associates.

Our department is based on new concept which combines together the following four nursing fields: maternal-child nursing, pediatric nursing, gerontological nursing and family nursing.

Our department provides lectures, clinical practicums and fieldwork on the four nursing fields to the undergraduate students of School of Health Sciences and Nursing. Our department also gives two required lectures, that is, "clinical immunology " and "laboratory methods in health science" to the undergraduate students of our school.

We also have responsibilities to give special lectures, advanced seminar and laboratory and/or field work on family nursing to the postgraduate (master's and doctoral) students.

Our research field concerns the development of methodology to improve nursing skills and techniques, and the development of physical, psychological and interactive assessment procedures for patients and families in our field.

Faculties and Students

Professor and Chair	Chieko Sugishita R.N., Ph.D. 1992~
Associate Professors	Kiyoko Kamibeppu R.N., Ph.D.
Associate	2
Postdoctoral Fellow	5
Graduate student	10
Research student.....	15
Secretary	2

Past Research and Major Accomplishments

Topics of our past research projects were as follows.

①Control of maternal-child transmission of micro-organism, ②Control of body fluid circulation in women supported with physical compression, ③ Evaluation of antibody development after immunization in children and analysis of immune system, ④ Environment/food factors of allergic diseases among children, ⑤Recent anxiety coping strategies in Japan, ⑥Psychological factors of the family caregiving for the frail elderly, ⑦Development of new devices for evaluating autonomic nervous activities of the frail elderly, ⑧Development of Japanese version of family functioning survey.

Major accomplishments were as follows.

Number indicates the number of research project.

- ①We examined the samples from neonates, their mothers, medical staffs and environment in a maternal ward to isolate some bacteria in order to demonstrate the route of transmission to neonates. Some of the neonates had the same bacteria as their mothers, medical staffs and environment at the point of discharge. Therefore, Several bacteria could have been transmitted to the neonates from their mothers, medical staffs and/or environment in hospital. Our data also showed that mamma trouble did not decrease even if they use nipple wiped with sterilized cotton. It seemed that hand washing before breastfeeding was more important.
- ② The physical compression with stocking was effective to control the blood pressure decrease when supine position was changed to standing up position, especially in the elderly. It was suggested the stocking might prevent the orthostatic hypotension in the elderly.
- ③Vaccine-induced immunity of measles, mumps, rubella and chickenpox at one to three years of age continued until nine years of age. But the level of immunity was lower than naturally aquired immunity.

- ④ This study showed that incidence of atopic children was decreased by age, but any risk factors could not be found in atopic children compared with non-atopic children.
- ⑧ We developed Japanese version of Feetham Family Functioning Survey (FFFS) which enables to evaluate the family functions for young families with children.

Current Research

Current research projects include four fields, that is, maternal-child nursing, pediatric nursing, gerontological nursing and family nursing.

Topics of our current research projects are as follows: ① Control of hospital infection such as transmission of bacteria including MRSA between mothers and their babies, ② Exploring the new nursing care model for the children with disabled and/or chronic illness in the community, ③ Interaction between nursing home residents and their families, ④ Nurses' interests in family care for critical patients, ⑤ Assessment of autonomic nervous activity in the elderly with chronic illness in hospital, ⑥ Incidence of adverse reactions associated with Japanese-style medical acupuncture for the elderly, ⑦ Follow up study of physical, mental and social activities of patients with dementia.

Future Prospects

Since two more Departments, 'Midwifery Nursing and Women's Health' and 'Gerontological Nursing', will be established in 2002 and 2003 respectively, our department will be responsible mainly for Family Nursing and Pediatric Nursing.

Concept of family nursing was introduced to Japan country only ten years ago, and The Japanese Association for Research in Family Nursing was founded by our department in 1994. Our department will explore the establishment of the theory in family nursing collaborating with its research, practice and education.

Education and research of pediatric nursing are also involved in our activities. We intend to research new fields of pediatric nursing in the viewpoints of child rights, good prognoses of severe illness, birth of children with diversified origins on the basis of the progress of reproduction technology, and well-being for all of the families.

Research Grants (within 5 years)

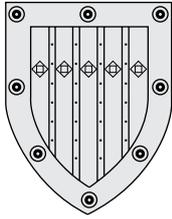
- 1, Chieko Sugishita, Naohiro Hohashi: Infection control among nursing mothers and neonates, and related quality of nursing care -According to analyses of bacteria including MRSA in a maternity clinic-, Grants-in-Aid for Scientific Research (B)(2), 1998-1999, The Ministry of Education, Culture, Sport and Science, ¥10,200,000
- 2, Chieko Sugishita, Noriko Yamamoto, Mamoru Kumada: Development of passive of leg cycle exercise for the elderly to improve the walking rhythm and enhance the autonomic nervous activity. Grants-in-Aid for Scientific Research (B)(2), 1999-2000, The Ministry of Education, Culture, Sport and Science, ¥6,400,000
- 3, Chieko Sugishita, Kunihiko Hayashi, Naohiro Hohashi, Kunie Mituhashi: Development of two dimensional scale in order to assess the family system and care ability, Grants-in-Aid for Exploratory Research, 1999-2000, The Ministry of Education, Culture, Sport and Science, ¥2,100,000
- 4, Hiroko Torii, Hideko Mori, Chieko Sugishita: Study on nurses' views on family and family nursing, Grants-in-Aid for Exploratory Research, 1999-2000, The Ministry of Education, Culture, Sport and Science, ¥800,000
- 5, Chieko Sugishita, Kiyoko Kamibeppu, Keiko Murata, Naohiro Hohashi, Hiroko Torii, Makiko Owaki, Kunihiko Hayashi: Development of nursing practice model for the children with chronic illness or/and disabilities and their families in community. Grants-in-Aid for Scientific Research (B)(1), 2001-2003, The Japan Society for the Promotion of Science, ¥12,100,000

Select Publications

1. Sugishita C, O'shea S, Best J, and Banatvala J E. Rubella serology by solid-phase radioimmunoassay. its potential for screening programmes. *Clin. Exp. Immunol* 31(1), 50-54, 1978.
2. Shishido A, Sugishita C, Takahashi C, Sakata H, Hirayama M, and Kimura M. A ten-year follow-up study on measles vaccination in Japan: Evaluation of the efficacy analyzed on a computer system. *Japanese Journal of Medical Science & Biology* 31(4), 339-356, 1978.
3. Kono R, M. Hirayama, Sugishita C, and Miyamura K. Epidemiology of rubella and congenital rubella infection in Japan. *Reviews of Infectious Diseases, Supplement 1*, 56-63, 1985.
4. Maekawa K, Nozaki H, Fukushima K, Sugishita C, and Kuriya N. Clinical analysis of measles, mumps and rubella vaccine meningitis? Comparative study of mumps, mumps meningitis and MMR meningitis?. *Jikeikai Medical Journal* 38(4), 361-368, 1991.
5. Iida Y, Sugishita C, Matsuura K, and Torii H. English education in colleges of allied health sciences. *Bulletin of Tokyo Metropolitan College of Allied Medical Sciences* 7 97-102, 1994.
6. Nagase H and C. Sugishita. Mother's anxiety related to their child rearing on telephone consultation. Analysis of statement about the in health center-. *J Child Health* 53, 668-76, 1994. (in Japanese)
7. Sugishita C, Tezuka K, Hohashi N and Higurashi M. Effects of medical compression stockings on lower leg girth in healthy women. *Jpn J Maternal Health* 35, 50-53, 1994. (in Japanese)
8. Hohashi N, Etoh T, Kurahashi T, Tejima R and Sugishita C. Seroepidemiology of primary school children in the third grade for naturally acquired or vaccine induced immunity of measles, mumps, rubella, and chickenpox determined by presence of IgG antibody. *Infection and Immunity in Childhood* 6, 251-4, 1994. (in Japanese)
9. Sugishita C, Mori H, Nagase H, Tezuka K, Kurahashi T and Hirayama M. Immunization of communicable disease and morbidity rate in handicapped children and young adults. *J Child Health* 53, 842-8, 1994. (in Japanese)
10. Tamura T, Naoko H, Nagase H, Morokata T, Igarashi O, Oshimi Y, Miyazaki S and Nariuchi H. Early activation signal transduction pathways of Th1 and Th2 cell clones stimulated with anti-CD3. *J. Immunol* 24, 4692-4701, 1994.
11. Yoshimoto T, Nagase H, Nakano H, Matsuzawa A and Nariuchi H. AV β 8.2-specific superantigen from exogenous mouse mammary tumor virus carried by FM mice. *Eur. J. Immunol.* 24, 1612-1619, 1994.
12. Sugishita C, H Yonezawa, N Hohashi, Y Iida, F Komoda, T Iwata and H. Hayakawa. The significance of guidance for mothers of allergic children with regard to dietary restrictions. *Proceeding of The XVth World Conference of the International Union for Health Promotion and Education.* 312-315, 1995.
13. Sugishita C, Morotomi C, and Murata I, etc. Evaluation of PHA/RIA antibody responses to CHO cell derived HB vaccine compared with yeast and plasma derived HB vaccines. *Clinical Virology* 23, 231-236, 1995.
14. Sato Y, Sugishita C, Kataoka Y. The effect of walking on blood pressure changes and accelerated plethysmogram (APG) in middle aged and elderly people with hypertension. *Jpn J Res Fm N* 2, 28-35, 1996.
15. Hohashi N, Hayashi T, Fusaki N, Takeuchi M, Higurashi M, et al. The protein tyrosine kinase Fyn activates transcription from the HIV promoter via activation of NF K b-like DNA-binding proteins. *Int. Immunol* 7, 1851-1859, 1995.
16. Tezuka K, Sato R, Igarashi T and Sugishita C. The effect of pneumatic massage on the leg circumferences of healthy women. *Clinical Report* 30, 203-209, 1996.
17. Tezuka K, Sugishita C, Kuwaki T, Higurashi M and Kumada M. Effects of compression stockings on blood pressure and its orthostatic change in female subjects. *Pathophysiology* 4, 81-86, 1997.
18. Iwata T, Hayakawa H, Komoda F, Koseki M, Miyakawa T, Sakurayama T, Yamasaki K, Honjou M, Hirakawa N, Inoue K, Hohashi N, and Sugishita C. Prospective study of atopic status in infants of the cohort in Tokyo, Japan. *Allergology International* 46, 221-225, 1997.
19. Miki A, Haratani T, Sugishita C, Kawakami N, Araki S, and Kawamura N. The effects of job stressors on depression and job satisfaction among hospital nurses in Japan. *Proceedings 15th Asia Conference On Occupational Health* 226-231, 1997.
20. Yoshidome A, C. Sugishita. A study on the relationship between mamma trouble and practice of nipple wiping with sterilized cotton. *Japanese Journal of Maternal Health* 38, 350-354, 1997. (in Japanese)
21. Tsuchiya H, Kusaka S, Hohashi N, Sugishita C. The decrease of the seroprevalence of antibodies against herpes simplex virus and cytomegalovirus among students of nursing college and consideration of their lifestyles and rearing environments. *Infection and Immunity in Childhood* 9, 95-102, 1997. (in Japanese)
22. Page J, Lim H, Lynett L-Y, Heller R, Fukuhara H, Ban S, Yamamoto N, and Kurokawa K. Critical appraisal workshop in Japan: a short term evaluation. *Education for Health.* 10, 371-377, 1997.
23. Yamamoto N and Wallhagen M I. The continuation of family caregiving in Japan. *Journal of Health and Social Behavior.* 38, 164-175, 1997.
24. Nagase H, Wang C, Yoshimoto T, Sugishita C, and Shiroishi T, Matuzawa A and Nariuchi H. Analysis of novel mutant mice secreting soluble CD4 without expression of membranebound CD4. *Eur. J. Immunol* 28, 403-412, 1998.

25. Naito N, Hashimoto Y, Sugishita C. Development of the childcaring perspective scale for mothers with children aged three or younger(CPS-M 97): -Validity and Reliability of the CPS M 97-. *Journal of Japan Academy of Nursing Science* 18, 1-9, 1998. (in Japanese)
26. Torii H and Sugishita C. Behavioral problems of the child when his/her mother is staying with his/her hospitalized sibling. *Japanese Journal of Research in Family Nursing* 4, 18-23, 1998. (in Japanese)
27. Matsui N, Ju K, Kumada M and Sugishita C. The effect of water exercise with a jet on the frail elderly. *The Autonomic Nervous System* 35, 419-423, 1998. (in Japanese)
28. Yamamoto N and Sugishita C. Utilization patters of care assistance by family caregivers of visitors to a clinic for the elderly. *Japanese Journal of Gerontology* 19, 129-139, 1998.
29. Yoshinaga, A., and Horibe, H. Serum lipid concentrations in Japanese children: A synthesis of 27 studies. *CVD Prevention*. 1: 55-70, 1998.
30. Yamamoto N, and Wallhagen M I. Service use by family caregivers in Japan. *Social Science and Medicine*, 47, 677-691, 1998.
31. Sugishita C. Development of family nursing in Japan-persent and future perspectives. *Journal of Family Nursing* 5(2), 239-244, 1999.
32. Matsui N, Ju K, Sugishita C and Kumada M. Assessment of baroreceptor reflex sensitivity during passive leg cycle exercise using bivariate autoregressive model. *Proceedings of the IFMBE/IMIA 3rd International Workshop on Biosignal Interpretation*. 91-94, 1999.
33. Omine F, Hamamoto I, Odo S, Miyagi M, Sunagawa Y, Sugishita C. A Study of the Effect of Peer Education on Student Sexual Awareness. *Journal of Japan Academy of Nursing Science* 19(3), 64-73, 1999. (in Japanese)
34. Nakatani Y, Hohashi N and Sugishita C. Changes of hemodynamics due to white noise stress according to the extents of obesity. *The Japanese Journal of Health and Human Ecology* 65, 208-218, 1999. (in Japanese)
35. Hohashi N, Matsumoto K and Sugishita C. National survey of actual conditions related to MRSA conducted through home-visit nursing care station-Focusing on incidence of MRSA and problems related to home care-. *Japanese Journal of Research in Family Nursing* 4, 119-124, 1999. (in Japanese)
36. Mori N, Ito T, Tsushima R, Hhashi N, Hiramatu K and, Sugishita C. Bacteriological and molecular epidemiological analysis of methicillin-resistant staphylococcus aureus isolated in a maternity hospital. *Environmental Infections* 14, 296-302, 1999. (in Japanese)
37. Yamamoto-Mitani N, and Sugishita C. Discharge education for neurology patients and their family: Comparison between the recognition of nurses, patients, and their family. *Japanese Journal of Research in Family Nursing* 5(2), 4-18, 1999. (in Japanese)
38. Yamamoto N M, Tamura M, Deguchi Y, Ito K and Sugishita C. The attitude of Japanese family caregivers toward the elderly with dementia. *International Journal of Nursing Sutudies* 37, 415-422, 2000.
39. Mori N, Hitomi S, Okuzumi K, Yoneyama A, Sugishita C, and Kimura S; Susceptibility to vancomycin of methicillin-resistant *staphylococcus aureus* isolated in a university hospital in Japan. *J. J. A. Inf. D.* 74(11), 966-972, 2000.
40. Yamamoto N M, Abe T, Yamada Y, Yamazato C, Amemiya H, Sugishita C and Kamata K. Reliability and validity of Japanese quality of life scale for the elderly with dementia. *Nursing and Health Sciences* 2(2), 69-78, 2000.
41. Matsui N, Ju K, Ohmori N, Sugishita C and Kumada M. A new device for evaluating autonomic nervous activity of cardiovascular system. *Biomedical Sciences Instrumentation* 36, 87-92, 2000.
42. Maeda M, Hohashi N, Sugishita C. Survey of the family accompaniment of hospitalized children. *Japanese Journal Research in Family Nursing* 5, 94-100, 2000. (in Japanese)
43. Kudo Y and Sugishita C. A Study of infection control among HPN patients. *Infection Control* 179-182, 2000. (in Japanese)
44. Yamamoto-Mitani N and C. Sugishita. The effectiveness of nurses' discharge education and post-discharge patient problem evaluation. *Japanese Journal of Nursing Science* 20(2), 21-28, 2000. (in Japanese)
45. Hohashi N, Maeda M and Sugishita C. Development of the Japanese-language Feetham Family Functioning Survey(FFFS) and evaluation of its effectiveness. *Japanese Journal of Research in Family Nursing* 6, 2-10, 2000. (in Japanese)
46. Yamashita H, Tsukayama H, Hori N, Kimura T and Tanno Y. Incidence of adverse reactions associated with acupuncture. *J Altern Complement Med.* 6(4), 345-350, 2000.
47. Kobayashi N. Formal service utilization of the frail elderly at home during the last six months of life. *Nursing and Health Sciences* 2, 201-204, 2000.
48. H Yamashita, H Tsukayama, and Sugishita C; Local adverse reactions commonly seen in Japanese-style medical acupuncture practice. *Clinical Acupuncture and Oriental Medicine* 2, 132-137, 2001.
49. Yamashita H, Tsukayama H, White A R, Tanno Y, Sugishita C, and Ernst E. Systematic review of adverse events following acupuncture: the Japanese literature. *Complementary Therapies in Medicine*, 9, 98-104, 2001.
50. Yamamoto-Mitani N, Sugishita C, Ishigaki K, Hasegawa K, MaekawaN, Kuniyoshi M, and Hayashi K. Development of instruments to measure appraisal of care among Japanese family caregivers of the elderly.

erly, *Scholarly Inquiry for Nursing Practice: An International Journal*, 15, 113-135, 2001.



Department of Community Health Nursing

Outline and Research Objectives

Department of Community Health Nursing (CHN) was established in June 1992 with the appointment of Dr. Katsuko Kanagawa as the first professor of the department. In May 1993, Dr. Sachiyo Murashima joined as associate professor and took charge as professor after Dr. Kanagawa's retirement.

During ten years since the department's inauguration, 12 students have succeeded in gaining the degree of Doctor of Health Sciences; 19 the degree of Master of Health Sciences, and in the undergraduate course 20 students elected to write theses in community health nursing.

In order to enhance the practice of nursing and public health, the department strives to undertake research for improvement of quality of life (QOL) of people in various community settings by focusing on:

1. Developing a comprehensive health care system for community care through public health nursing leadership;
2. Intervention projects to demonstrate efficacy of new initiatives directed at improvement of QOL of bedridden, frail and demented elderly;
3. Preventive programs to improve clinical practice in home (e.g. falls) and to reform policy directions;
4. Undertaking commissioned research with government and non-governmental organizations driven by needs and resources of individuals, families, targeted population groups and organizations in order to measure cost-effectiveness and quality of care;
5. Developing models for community nursing practice to provide efficient care in partnership with other professionals, families and communities.

The major studies undertaken by the members of the CHN department can be classified as following;

Directed at	Descriptive studies	Intervention studies
Individuals	<ul style="list-style-type: none"> • Influencing factors of social rehabilitation among former patients with Hansen's disease • Meaning of health among cancer patients • Home visiting for schizophrenic patients 	<ul style="list-style-type: none"> • Prevention for deterioration of ADL among bedridden elders • Effectiveness of reminiscence for the demented elderly (RCT) • Effectiveness of early discharge planning(RCT)
Families	<ul style="list-style-type: none"> • Attitude and interaction of grand children to the demented elders at home • Care of families of children with chronic disease 	<ul style="list-style-type: none"> • Effectiveness of improved home visit program for newborn babies
Aggregates	<ul style="list-style-type: none"> • Characteristics of professional support to family groups of psychiatric patients • Meaning and strategy of rural women for maintaining both agriculture and care-giving 	<ul style="list-style-type: none"> • Effectiveness of improving support program to family groups of psychiatric patients (RCT)
Home health service and a community working	<ul style="list-style-type: none"> • Community diagnosis and networking • Comparison between two types of around-the-clock in-home care systems : a single type of home help service and a combination type with nursing 	<ul style="list-style-type: none"> • Development and evaluation of around-the-clock in-home care system

Faculty and Students

Professor and Chair	Sachiyo Murashima, D.Hlth.Sc., R.N., P.H.N. (2001~)
Associate Professor	Noriko Nishikido, D.Hlth.Sc., R.N., P.H.N.
Associates	2
Graduate Students	11 (7 in Master course; 4 in Doctoral course)
Research Students.....	2
Secretaries	3

Past Research and Major Accomplishments

Research Areas of Community Health Nursing

Community health nursing research has been considered from three perspectives; 'nursing *in* the community', 'nursing *of* the community' and 'nursing *into* the community.' A majority of studies have focused on continuity of care and empowering people by strengthening their potentiality through creating care systems.

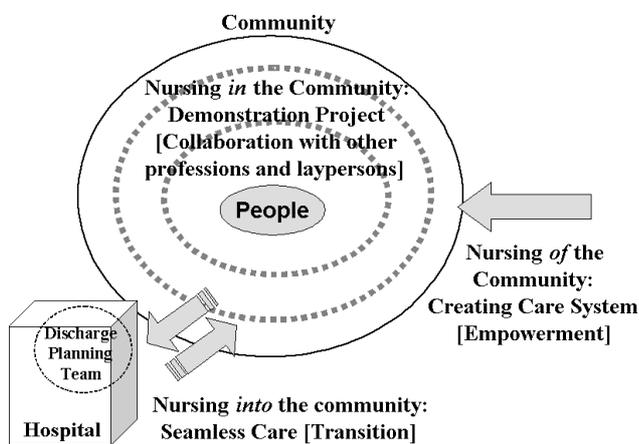


Figure. Community Health Nursing Research: Focal Areas

1. 'Nursing in the community'

'Nursing in the community' means offering nursing services or health promoting activities to people in the community in collaboration with other professionals and/or lay people. It is operationalized by developing and testing a new programs to meet needs of individuals or aggregates.

In 1993, when I was transferred to the University of Tokyo, care burden for the elderly was a topical issue in Japan. Following favorable reports of night-time home helpers' visiting service, a need to add visiting nurse service was strongly solicited. A study testing the efficacy of model programs involving four visiting nurse stations providing around-the-clock nursing care (ACC) commenced with assistance from the Ministry of Health and Welfare in 1994.

Based on the needs assessment for ACC, an intervention of visiting nursing care early in the morning and evening was provided; and simultaneous evaluation was carried out before, during and after 3 months. Major findings indicated positive effects related to stabilized medical status, reduced stress, thereby reduced complications such as decubitus (see article number 22).

The results also impacted on policy change: in 1996 the fees for ACC visiting nurses, which enabled the night time visits by nurses, were included in the national health insurance program. The combination type of nursing and home help service functioned more effectively than a single type of home help service (see article number 34).

2. Nursing of the community

Research for 'nursing of the community' means creating care systems in the community for providing effective care of individuals to enhance their capacity. A study depicting the role of public health nurses in enabling the community to establish its own care system to solve problems (see article number 25) was in a rural town M with a focus on ACC system.

The major purpose of this study was to test the

feasibility of ACC visiting nurse service as desired by the community, to measure its effectiveness and eventually to develop a policy for providing this service within the local government health plan. The intervention included establishing the need and acceptance of service, involving residents and other health workers, resulting in whole community handling conflicting concepts such as 'Sekentei', a kind of socio-cultural norm (see articles number 31, 43, and 48).

Intervention and control population were used for comparison to measure the effectiveness of around-the-clock visiting nurse service. The outcomes of ACC by nurses and home-helpers indicated lower rates of institutionalization and reduced waiting lists in the study town, compared with the control town, although control town rates of institutionalization did not differ from all Japan rates (see article number 47).

3. Nursing into the community: Creating seamless care

The third area, 'nursing into the community', refers to developing models to assist patients and families when patients return home through multidisciplinary and collaborative discharge planning in hospitals in order to implement seamless care. To determine the effectiveness of newly established discharge planning service, several studies were conducted, including the characteristics of patients referred for discharge planning and of those identified being at risk (see article number 35).

A quasi-experimental trial reexamined the effectiveness of early discharge planning for at-risk hospitalized elders. The findings indicated decreased anxiety in patients and caregivers, and effectiveness in terms of prevention of prolonged hospital stay (see article number 36).

A book 'Discharge Planning: A Challenge at the Tokyo University Hospital' was published in 2002, as one of scholarly outcomes of this research activity.

Current Research Projects

Current research of the community health nursing department is dedicated to further exploration of ways to promote health and continuation of projects in the preceding years. To list a few are;

1. Support program for the lonely elderly, fall prevention program, and demonstration projects such as developing check list of unilateral spatial neglect and related disorders amongst cerebro-vascular patients in community settings.
2. Review and expansion of long-term care in a rural town, Town M, for the evaluation Long-Term Care Insurance.
3. Seamless care between hospital and community 1) Development and test of usefulness of check list

for potential high-risk patients for referral of discharge planning support team; 2) Investigation of daily life problems immediately after discharge.

Future Plan

Since numbers of elderly in Japan are rapidly increasing and family support is dwindling, the department endeavors to take a lead role in research related to establishing basic home care programs that are efficient, acceptable by funding bodies (e.g. government) and adaptable by the local communities. Therefore,

1. Faculty and graduate students of department are dedicated to developing community interventions specifically for care of demented and bed-ridden elders.
2. Health promotion intervention studies to strengthen community competence and lines of resistance through programs, such as: 1) developing volunteer networking which offers day care programs to prevent elders from deterioration, and bed-ridden or demented; 2) support programs for 75 years and older by offering preventive home visiting 2-3 times a year; 3) strengthen and support community health nurses in developing skills and sustainable capacity-building developmental approaches towards community partnerships and activities in the community.

Research Grants (selected 5)

Sachiyo Murashima (P.I.), Katsuko Kanagawa, Hiromi Kawagoe.

A study on organization and specification of functions of home care nursing: From the viewpoint of 24-hour care plan.

Grant-in-Aid for Scientific Research (B) by the Ministry of Education and Culture in 1998-1999; ¥12,400,000.

Sachiyo Murashima (P.I.), Shuhei Ryu, Masako Yamada, Yutaka Tagami, Hiromi Watanabe, Naomi Sumi, Naoko Takeuchi.

A study on promoting the model project of a combination type of nursing and home-help service.

Research Grant for Welfare of the Elderly by the Ministry of Health, Labour and Welfare in 1999; ¥5,000,000.

Sachiyo Murashima (P.I.), Tomoe Nogawa.

A research on promotion of well-being of the elderly by public health nurses' activities.

Research Grant for Welfare of the Elderly by the Ministry of Health, Labour and Welfare: Research Project for Supporting Independent and Healthy Elders in 2000; ¥10,000,000.

Hidetoshi Endo (P.I.), Sachiyo Murashima, Satoko Nagata.

A study on effectiveness of the support system of discharge planning for hospitalized elders in special functioning hospitals.

Research Grant for Longevity Sciences from the Ministry of Health, Labour and Welfare in 2000-2002; ¥1,500,000 in each year.

Sachiyo Murashima (P.I.), Ryutaro Takahashi, Satoko Nagata, Megumi Haruna.

Effectiveness of the program for discharge planning for elderly in-patients.

Grant-in-Aid for Scientific Research (B) by the Ministry of Education and Culture in 2001-2002; ¥9,200,000.

Select Publications

*: copy attached.

1. Murashima S and Iida S. A study on health behavior and life style of primary school children: The difference between urban and rural communities, fifteen years ago and now. *Research Journal of School Health* 23(11), 531-539, 1981. (in Japanese)
2. Murashima S, Ryu S, Tanaka T and Tomari T. A study on trends of the regional variations of physical standards in Japanese schoolchildren. *Research Journal of School Health* 24(2), 89-97, 1982. (in Japanese)
3. Murashima S. A case study on family life of young women with Diabetes Mellitus: How much can their husbands, relatives, neighborhood and children understand their situations? *Journal of Japan Academy of Nursing Science* 2(1), 39-47, 1982. (in Japanese)
4. Murashima S, Iida S, Ishii Y, Fujita A, Matsushita K and Watanabe H. Health condition and home care of the aged with 75 years and over: Regional differences between urban and suburban areas. *Bulletin of St. Luke's College of Nursing* 15, 28-43, 1989. (in Japanese)
5. Murashima S, Iida S, Ishii Y, Matsushita K, Fujimura M, Sanuki J, Hanazawa K, Watanabe H and Sakurai N. Health conditions and home care of the frail elders with 75 years and over: Regional differences between urban and suburban areas. *Bulletin of St. Luke's College of Nursing* 16, 60-69, 1990. (in Japanese)
6. Yoshio K, Murashima S and Iida S. A study on changes of DM patients' life style and the affecting factors. *Journal of Japan Academy of Nursing Science* 10(1), 24-36, 1990. (in Japanese)
7. Fukanoki T, Murashima S and Iida S. Analyses of factors affecting home oxygen therapy (HOT) patients' Quality of Life: Focusing on their life satisfaction. *Journal of Japan Academy of Nursing Science* 11(1), 9-21, 1991. (in Japanese)
8. Fukaya A, Murashima S and Iida S. Analyses of factors affecting the change in ADL of post-infarct hemiplegics elders living at home: Focusing on the daily life style of the patients and their families.

- Journal of Japan Academy of Nursing Science 11(2), 44-54, 1991. (in Japanese)
9. Murashima S, Iida S, Matsushita K, Sakurai S and Naruki H. Building a care system for frail elderly in the community. Annual Report: St. Luke's College of Nursing, WHO Collaborating Center for Nursing and Midwifery Development in PHC 1990/1, 48-54, 1992.
 10. Mizuno T, Murashima S and Iida S. Analyses on care burden and cognitive discrepancies of care role between frail elders and their care-givers. Journal of Japan Academy of Nursing Science 12(2), 17-29, 1992. (in Japanese)
 11. Murashima S, Satoh R, Naruki H, Kurebayashi M and Iida S. Issues in mobilizing the bedridden elderly at home. Annual Report: St. Luke's College of Nursing, WHO Collaborating Center for Nursing and Midwifery Development in PHC 1991/2, 8-20, 1993.
 12. Nishio J, Murashima S and Iida S. Health behavior model based on analysis of factors affecting alcohol behavior of company employees. Japanese Journal of Public Health 41(7), 607-617, 1994. (in Japanese)
 13. Murashima S. Limitation of care-giving to the elders by the families and the conditions for the society to take care of the elders. Research Journal of Care and Welfare 2(1), 23-30, 1995. (in Japanese)
 14. Ota K, Tamura M, Sei M, Koyama M, Hishinuma M and Murashima S. The content and its teaching method of nursing for elderly in Baccalaureate Program. Bulletin of St. Luke's College of Nursing 21, 34-40, 1995. (in Japanese)
 15. Murashima S, Murakami K, Kadokawa T, Sasaki M, Naruki H, Kawakami H, Arai H, Iwanaga T and Iwamuro S. Strategies of public health nurses to practice in rural areas and urban areas. Japanese Journal of Public Health Nurses 51, 91-96, 1995. (in Japanese)
 16. Murashima S, Yamada M, Tagami Y, Satoh M, Uchida E, Miyazaki W, Kawagoe H, Hoshi T, Ooura H, Horii T, Nakayama I and Yamazaki M. Facts through the project of around-the-clock nursing and care provided by visiting nurse service stations. Japanese Journal of Home Care Nursing 1(2), 83-92, 1996. (in Japanese)
 17. Murashima S, Kim J and Fukui S. Outcomes in home care. Japanese Journal of Nursing Research 30(5), 351-363, 1997. (in Japanese)
 18. Murashima S, Fukui S and Kim J. Several kinds of recording formats for home care developed on the basis of outcome. Japanese Journal of Nursing Research 30(5), 47-63, 1997. (in Japanese)
 19. Okada M, Murashima S and Asahara K. A study on competencies used by public health nurses in creating new health care systems in the community. Japanese Journal of Public Health 44(4), 309-321, 1997. (in Japanese)
 20. Murashima S and Yamada M. Support for home care in the community: Principles of providing home help and nursing care. Health Sciences 14(1), 6-11, 1998. (in Japanese)
 21. Murashima S. Role and issues of visiting nurse service in the aging society: For effective home care. Japanese Journal of Gerontological Sociology 20(1), 16-24, 1998. (in Japanese)
 - 22*. Murashima S, Zerwekh JV, Yamada M and Tagami Y. Around-the-clock nursing care for the elderly in Japan. Image: Journal of Nursing Scholarship 30(1), 37-41, 1998.
 23. Konishi K, Murashima S and Kanagawa K. A study on stress-coping in the stroke rehabilitation process: A qualitative analysis on problems recognized by patients. Japanese Journal of Home Care 1(1), 56-66, 1998. (in Japanese)
 24. Okamoto E, Murashima S and Saito E. The significance of day care service for elders with dementia and their caregivers: What is the difference between the day with day care service and the day with no service? Japanese Journal of Public Health 45(12), 1152-1161, 1998. (in Japanese)
 - 25*. Murashima S, Hatono Y, Whyte N and Asahara K. Public health nursing in Japan: New opportunities for health promotion. Public Health Nursing 16(2), 133-139, 1999.
 26. Murashima S. Function and role of nurses in around-the-clock in-home care service. Health Care 40(5), 387-392, 1998. (in Japanese)
 27. Murashima S, Ryu S, Asahara K, Yamada M and Tagami Y. A system supporting the elderly at home: Demand and effectiveness of 24 hour home care which includes medical treatment. Geriatric Medicine 36(12), 1789-1795, 1998. (in Japanese)
 28. Yamawaki A and Murashima S. Home care service utilization by severely mentally and physically handicapped persons. Japanese Journal of Public Health 45(6), 499-511, 1998. (in Japanese)
 29. Ito A, Murashima S, Choi J and Horii T. The meaning of the characteristics on the function of night-time nurses' visits: Through the analyses of the users' record of the visiting nurse station which provides around-the-clock in-home care by three shifts of nurses. Journal of Japan Academy of Home Health Care 3(1), 68-77, 1999. (in Japanese)
 30. Murashima S, Saito E, Hattori M, Hagiwara A, Sumi N, Ueno M and Kanagawa K. Study on competencies of community health nurses and introduction of the activity by Dr. Joyce Zerwekh: Focused on home visits and visiting nurse service. The Japanese Journal of Nursing Research 32(1), 3-14, 1999. (in Japanese)
 - 31*. Murashima S, Asahara K, White MC and Ryu S. The meaning of public health nursing: Creating 24 hour care in a community in Japan. Nursing and Health Sciences 1, 83-92, 1999.
 32. Murashima S and Hollaender L. How do the people in Denmark treat with elders with dementia. The Japanese Journal of Occupational Therapy 34(5), 594-597, 2000. (in Japanese)
 33. Murashima S. Evaluation of home care service. Health Care 42(4), 263-269, 1999. (in Japanese)
 - 34*. Takeuchi N, Murashima S and Hattori M. Comparison between two types of around-the-clock

- in-home care systems: A single type of home help service and a combination type of nursing and home help service, focused on the way of collaboration and its influence. *Journal of Japan Academy of Home Health Care* 4(1), 24-30, 2000. (in Japanese)
- 35*. Murashima S, Nagata S, Toba K, Ouchi Y and Sagawa Y. Characteristics of patients referred for discharge planning from a geriatric ward at a national university hospital in Japan: Implications for improving hospital programs. *Nursing and Health Sciences* 2, 153-161, 2000.
- 36*. Sumi N, Murashima S, Toba K and Ouchi Y. The effectiveness of early discharge planning for hospitalized elders who had expected difficulties of discharge: A quasi-experimental trial in a geriatric ward of a highly advanced medical center. *Journal of the Japanese Society on Hospital Administration* 38(1), 29-40, 2001. (in Japanese)
37. Yokoyama A, Murashima S, Nagata S, Yanagisawa A, Wakabayashi K, Tashiro T, Toba K and Ouchi Y. Follow-up study of patients who received discharge planning by a special department in a national university hospital. *Journal of the Japanese Society on Hospital Administration* 38(1), 53-61, 2001. (in Japanese)
38. Kayama M, Zerwekh J, Thornton KA and Murashima S. Japanese expert public health nurses empower clients with schizophrenia living in the community. *Journal of Psychosocial Nursing* 39(2), 40-45, 2001.
39. Toba K, Akishita M, Tanaka S, Kato T, Kawai S, Yamaguchi N, Murashima S, Iguchi A and Sasaki H. Knowledge and utilization on the comprehensive evaluation of functions and of physicians' opinions in Japan: Joint research based on a wide variety of hospitals and facilities in Japan. *Journal of Japan Academy of Geriatric Medicine* 38(2), 139-147, 2001. (in Japanese)
40. Nagata S and Murashima S. Current situation and issues of support program for early discharge. *Health Care* 44(2), 95-99, 2002. (in Japanese)
41. Murashima S, Nagata S and Haruna M. Visiting nurse service: Transition from hospitals to visiting nurse service stations. *The Japanese Journal of Nursing Research* 35 (1), 15-24, 2002. (in Japanese)
42. Kim J and Murashima S. Comparison of the home care system for the elderly in Japan and Korea: Towards an advanced home care system. *Journal of Korean Academy of Nursing* 31(7), 1166-1173, 2001.
- 43*. Asahara K, Momose Y, Murashima S, Okubo N and Magilvy JK. The Relationship of social norms to use of services and caregiver burden in Japan. *Journal of Nursing Scholarship* 33(4), 375-380, 2001.
- 44*. Murashima S, Nagata S, Magilvy JK, Fukui S and Kayama M. Home care nursing in Japan: A challenge for providing good care at home. *Public Health Nursing* 19(2), 94-103, 2002.
45. Asahara K, Momose Y and Murashima S. Family care-giving of the elderly and Long-Term Care Insurance in rural Japan. *International Journal of Nursing Practice* 8, 167-172, 2002.
46. Honda A, Saito E, Kanagawa K and Murashima S. The relation between characteristics and activities of daily living of the elderly living alone. *Japanese Journal of Public Health* 49(8), 795-801, 2002. (in Japanese)
- 47*. Murashima S and Asahara K. The effectiveness of the around-the-clock in-home care system: Did it prevent the institutionalization of frail elderly? *Public Health Nursing* 20(1): 13-24, 2002.
- 48*. Choi J, Murashima S, Hattori M, Horii T, Nagata S and Asahara K. Factors influencing the utilization of visiting nursing and home-help services. *Japanese Journal of Public Health* 49(9), 948-958, 2002. (in Japanese)
49. Murashima S, Yokoyama A, Nagata S and Asahara K. The implementation of the Long-Term Care Insurance in Japan: Focused on the trend of home care. *Home Health Care Management & Practice* 15(6), 2002 (in press).
50. Momose Y, Asahara K and Murashima S. A trial to support family caregivers in the Long-Term Care Insurance: Self-help groups in small communities. *Home Health Care Management & Practice* (in press).