

Annual Report
St. Luke's College of Nursing
WHO Collaborating Centre for Nursing Development
in Primary Health Care

1998 through 1999

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Foreword

Michiko Hishinuma, Dean

St. Luke's College of Nursing

Head, WHO Collaborating Centre for Nursing Development in Primary Health Care

In 1990, St. Luke's College of Nursing was designated as a WHO Collaborating Centre for Nursing Development in Primary Health Care. In 1994 and 1998, our College was re-designated as a WHO Collaborating Centre for another four years. This annual report describes our activities between 1998 and 1999, including researches and field works related to nursing development in primary health care.

In Japan, our rapidly aging society has posed many issues of which one is providing care of the elderly. The Ministry of Health and Welfare provided us with a grant to develop nursing models of primary health care to meet this need. We have reviewed the literature and are continuing research in this area.

We have been working with Chiba University School of Nursing. In addition, we have maintained close communication with the Ministry of Health and Welfare and Japan Nurses Association regarding our activities.

The Annual Report describes the activities and studies conducted by members of St. Luke's College of Nursing and Chiba University School of Nursing over the past year.

Finally, I would like to express my gratitude, as Head of the Centre and Dean of St. Luke's College of Nursing, to the organization and individuals who have supported and helped our activities, and sincerely hope for greater cooperation both inside and outside the Centre, for achievement of our goals.

September, 1999

**Activities of the WHO Collaborating Centre
for Nursing Development in Primary Health Care
at St. Luke's College of Nursing, Japan**

Report for 1998

Global Network

- 1) Participation in The Ninth General Meeting and the Second International Conference of the Global Network of WHO Collaborating Centres for Nursing/Midwifery in Korea (April 1998)

Professor Michiko Hishinuma, the head of the Centre, and Professor Koyama attended the Ninth General Meeting of the Global Network of WHO Collaborating Centres for Nursing/Midwifery in Kyongju, Korea from April 27 to 28, 1998.

Our Centre participated in activities on Promoting the Health of the Population, which were among the activities of the Global Network.

- 2) Participation in the EXPO NURSING EDU at the Second International Conference (April, 1998)

Our Centre exhibited a booth introducing education for midwifery in the EXPO NURSING EDU at the Second International Conference which was held at the same time as The Ninth General Meeting of the Global Network of WHO Collaborating Centres for Nursing/Midwifery from April 29 to 30. Also, our Centre sent Ms. Noriko Kawana, a liaison nurse at St. Luke's International Hospital, as a panelist.

- 3) Activities for the Cooperative Project

This year, being the year of renewal of the mission, in July, we received a letter of formal approval from Dr. S.T. Hans. Our Centre prepared and distributed a document specifying the goal of our activities for this term. Our Centre continues cooperation with Chiba University School of Nursing.

4) Other activities

In response to a WHO Headquarters request for participation in a project that fosters development of nursing education programs as countermeasures against tuberculosis, we have recommended Dr. Junko Tashiro, Professor of St. Luke's College of Nursing and a member of the WHO Collaborating Centre.

1. Publication and distribution of the annual report (August, 1998)

The Centre's Annual Report (Vol.8) on research and other activities covering the period from April 1997 through March 1998 was published in August. Copies of the report were sent to 67 institutions in Japan, including governmental agencies, universities with nursing departments, colleges of nursing, and 39 institutions throughout the world including WHO Headquarters and regional offices, Collaborating Centres, and other organizations concerned.

2. Research activities

Research on quality assurance in nursing (supported by a Grant-in-Aid for the Health Technology Assessment Research Project by the Ministry of Health and Welfare, 1998)

The purpose of this research was to develop nursing models for Primary Health Care and to promote Primary Health Care. For this purpose, English literature related to Primary Health Care was reviewed.

3. Other activities

1) Publicity

Information selected from WHO Newsletters was translated into Japanese and reported to "Kango", which is the journal of the Japan Nursing Association. The Newsletter provides information about WHO to Japanese nurses.

- a) Information about nursing in Japan was sent to the Global Network Headquarters in Manchester and to WPRO (Manila) by e-mail.
- b) Participation in the Information Exchange of the Third International Nursing Research Conference (September). The Centre held a mini symposium. The theme of the symposium was "Continuing Education in

Nursing in Japan --- Toward Quality Assurance in Nursing” .

2) Visitors to the Centre

Dr. S. Ruth, Regional Adviser in Nursing (March, 1998)

Health Technology Assessment Research Project Supported
by the Ministry of Health and Welfare in Japan (1998)

Study of Quality Assurance in Nursing: Development of Nursing Models Based on PHC: Literature Review

WHO Collaborating Centre for Nursing Development in Primary Health Care

Chief research scientist	St. Luke's College of Nursing	Michiko Hishinuma
Cooperative scientist	St. Luke's College of Nursing	Akiko Mori
		Wakako Kushiro
		Masumi Katagiri
		Kazuko Naruse
		Yoshiko Sakai
	Chiba University, School of Nursing	Kazuko Saito

Purpose: The purpose of this study was to analyze, through a review of the literature, the current status of nursing as it relates to Primary Health Care (PHC). The focus of the literature review was: 1) the scope and activities of PHC; 2) the concept of PHC; 3) nursing providers and their roles with PHC; 4) nursing education related to PHC; 5) strategies for promoting PHC.

Method: A literature search was accomplished based on selected aspects of the study. Using CINAHL, literature described in English from 1993 to 1998 was searched by the following keywords; “PHC”, “Nursing”, and nursing specialties such as “Maternity”, “Pediatric”, “Adult”, “Elderly”, “Emergency”, “Psychiatric”, “Midwifery”, “Community”, “Community Health Care” and “Education”. From a total of two-hundred-seventy-one (271) documents, sixty-seven (67) were selected for further analysis. Two kinds of coding sheets were prepared as a guide for our review.

Findings: Sixty-seven (67) documents, comprised of twenty-two (22) discourses, twenty-five (25) research papers and twenty (20) reports were selected, categorized and examined according to the aspects of this study.

1. The scope and activities of PHC described: The literature related to the scope of PHC was categorized and divided into four groups with reference to the eight items included in the scope of PHC as advocated by the Alma-Ata Declaration.

- a) Health for mothers and children: Twelve (12) documents were pertinent to this category. It clarified that the health, and social and cultural background of women had much influence on the health of children. The activities of nurses were also defined from the PHC perspective.
- b) Vaccination: Three documents were pertinent to this area. The documents discussed vaccination in developed countries. None were related to developing countries. They stated that vaccination was still an important task of PHC in developed countries. They also stated that obtaining appropriate information about the effects and risks of vaccination, and the ability to make appropriate decisions about application and promotion of vaccination was difficult not only for people in general but also for specialists involved in PHC.
- c) Prevention and treatment for general disease and injury: Two documents were pertinent to this category. They clarified the role of a medical institution reflecting the current situation of its region, people's consciousness of not relying completely on medical care, and the function of nursing was an important area to strengthen.
- d) Psychiatric health: Five documents were pertinent to this area. Psychiatric health is an important health issue in developed countries, and PHC for people with mental disease living in the community must be promoted. In addition, PHC was important in terms of cost. It was effective in decreasing medical expenses, and nurses were expected to be involved in this task.

2. The concept of Primary Health Care - the confusion with the term, Primary Care (PC): Two documents described the confusion of the terms PHC and PC. Among the documents reviewed, some confused these two terms and others used PHC to mean PC.

3. Nursing care providers and their role with the approach to PHC: Twenty-three (23) documents were pertinent to this area. The roles expected to be carried out by nursing care providers were as follows:

- a) managing health economics,
- b) practicing health promotion,
- c) education of health volunteers and community health workers,
- d) administrator who analyzes the current status and establishes a plan,
- e) providing direct care, and
- f) providing human resources for care,

It was noted that there were problems in working with people in other professions and

nurses were not accustomed to using a team approach. Thus, the task for the future is to emphasize continuing education in the team approach and to develop programs in economics.

4. Nursing education related to PHC: Eighteen (18) documents were pertinent to this area. They stated that future medical care would be based in the community and therefore, would require PHC education for nurses. WHO proposed that the concept of PHC be taught in the basic nursing program. The followings were recommended in considering how the concept of PHC should be presented in the curriculum:

- a) The concept of PHC should be systematically introduced.
- b) Educational approaches for promoting student autonomy and problem solving ability should be considered.
- c) The way students learn the concept of PHC and its practice should be based on their own experiences. Students should be encouraged to practice in the field rather than only in the academic setting.
- d) Work with people in other professions should be emphasized. The role and function of each profession in terms of PHC should be clearly addressed.

5. Strategies for promoting PHC: Two documents were pertinent to this category. One stated that a strategy for promoting the quality of products in the industrial sector should be used to promote PHC. The other stated that research training should be introduced into a education program to enhance the quality of staff working in the field of PHC.

Conclusion: 1. The literature reviewed in this study focused on the first stage of health transition. A number of documents described infectious disease and health for mothers and children. A few documents discussed psychiatric health which was pertinent in the second stage of health transition from infectious disease to chronic disease. The third stage of health transition was rarely discussed. Only one document described the transition from chronic disease to elderly degenerative disease. PHC was a commonly used method in any stage of health transition. However, from a global point of view, PHC was most utilized in the first stage of health transition.

2. The documents emphasized the importance of developing the PHC system and clarifying the role of nurses and other team members.

3. In order to achieve health for all by utilizing PHC, it must be introduced into the nursing education curriculum. One of the most important tasks for the future is to educate resource people who can develop PHC systems and introduce a team approach to nursing education.

Research supported by Grant-in-Aid for Health Sciences Research, provided by the Ministry of Health and Welfare in Japan, 1998.

Duties of Pediatric Outpatient Nurses and Duties Perceived as “Nursing Roles” by Nurses

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3) Chiba Children's Hospital

Pediatric outpatient nurses are expected to play a diversity of roles nowadays.

To study the curriculum of practical outpatient nursing for student nurses, we examined the frequencies of various outpatient duties practiced by pediatric outpatient nurses and identified the duties perceived as “nursing roles” by the nurses. A survey was conducted in all the general hospitals with over 300 beds in Tokyo Metropolitan and five prefectures in the Kanto area and 125 pediatric hospitals nationwide which cooperated with this study. A questionnaire was sent to one head nurse in each pediatric outpatient department and 399 staff nurses.

The most frequently practiced nursing duties of outpatient clinic were items belonging to “direct care or indirect duties related to medical examinations and treatment”. The least frequently practiced duties were “assistance to children who need long-term care” and “general guidance and counseling for families concerning child care”. The duties which nurses perceived as “nursing roles” were variable. Many such items were actually being practiced. However, items such as “assistance to children who need long-term care” and “modification and improvement of nursing records and the system of patient care assignment” were highly recognized as nursing roles but were not frequently practiced. As regards the items in which personal judgement and capability of nurses are questioned, the general opinion was that the present situation would continue. Items such as “clerical duties” that are frequently practiced but which were regarded as “not necessarily the nurses’ duties”, the general opinion was that the present situation would continue. Changes in outpatient nursing are desired, so that priority of practice is given to “nursing roles that should be practiced by nurses”.

In the curriculum of practical outpatient nursing for student nurses, learning should not be limited to the setting of nursing supports in medical examinations and treatment which are most frequently practiced. Even for items that may be practiced infrequently for some nurses, learning objectives should be developed that enable needs identification

and recognition of the “nursing role” . Planning of effective educational methods that prepare nurses for the diverse roles expected of them in a modern pediatric outpatient department is important.

Bulletin of St. Luke's College of Nursing, No.25, 41-51,1999.

Changes in Patterns of Mothers' Sleep Logs During the Postpartum Period

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Yaeko Kataoka, RNM. Naoko Arimori, RNM.,MSN.

Yasuko Mitsuhashi, RNM.,MSN. Akiko Mori, RNM., MSN.

Hiromi Eto, RNM. (Master's Student)

St. Luke's College of Nursing

Purpose: In our previous study, the percent of waking time during a designated sleep period, for mothers one to six weeks into the postpartum period, increased 22.4% using data from electroencephalogram. In the present study, we focused on changes in sleep patterns of mothers during the day and night one to twelve weeks into the postpartum period.

Methods: The subjects were 8 primiparae, aged 28-39 years, and their infants. All infants were full term. Mother-infant pairs were in close proximity. All mothers recorded both their own and their infant's sleep logs. There were 378 days analyzed from the mothers' self-maintained sleep logs. We estimated sleep parameters using statistical methods.

Results: No differences were found in sleep period times of mothers between one and twelve weeks, postpartum. The mean sleep period time was 370.9 minutes (SD=80). Mothers' sleep patterns depended on whether they got up to take care of their infants. The sleep disruption time during the 1 to 6 week period (mean 93-105 min.) was longer than that during the 10-12 weeks period (mean 57-68 minutes, $p<0.01$). From 1 to 6 weeks postpartum, the percent of waking time during the sleep period increased 26%, while from 10-12 weeks the waking time decreased 18%. The frequency of sleep without disruption nights during weeks 1-4 (15%) was significantly less than that at the 12th week (36%) ($p<0.05$). The mean nap period time at 1-4 weeks (42 min.) was longer than that at 10 weeks (14 min., $p<0.05$). The frequency of nap time during the day (1-4 weeks, 57%) decreased significantly (8 weeks, 20%, $p<0.001$) as the postpartum period progressed. The statistically significant data differences between the groups during the postpartum weeks were sleep disruption time and nap time.

Conclusion: Mothers' sleep patterns from the first to twelfth postpartum week fluctuate between patterns with disruption and without disruption. The data from sleep logs continuously corresponded to the data produced by the electro-encephalograms of the mothers.

Third International Nursing Research Conference, Japan Academy of Nursing Science,
234, 1998.

Research supported by Grant-in-Aid for Scientific Research, provided by the Ministry of
Education, Science and Culture of Japan.

The Effect of Hot Compress applied to the Lumbar Region For Autonomic Nervous System

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Objective: The objectives of this study are to examine the physiological effect of the hot compress applied to the lumbar region for autonomic nervous system and to identify the mechanism of the hot compress as a nursing skill for promoting defecation.

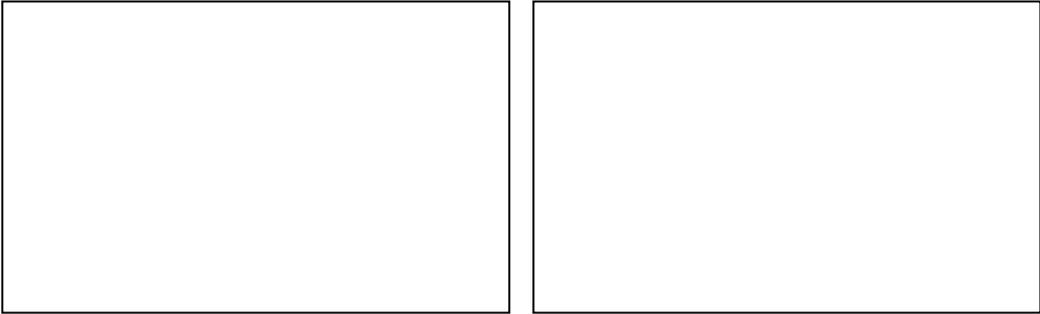
Design Methods: The sample consisted of 5 healthy female volunteers, ranging in age from 29 to 39 with a mean age of 32.6. The operation of the hot compress on the autonomic nervous system is measured by heart rate variability (HRV) and blood flow to certain points of the left arm and leg. Prior to the hot compress operation, the base data were measured under the condition of rest in bed, and then the hot compress was applied to the lumbar region for 10 minutes. The data of this experiment were collected during the hot compress, at the completion of the hot compress, at the point of 30 to 40 minutes and 60 to 70 minutes thereafter.

Results: The results were as follows:

- 1) The average R-R interval data of 5 samples in each measure point are illustrated in Figure 1. The interval data during the hot compress became shorter and the data at the completion and at the point of 30 to 40 minutes came to be longer than the base data.
- 2) Responses (HF) in parasympathetic nervous system which come out from spectral analysis of HRV through the CGSA showed in the same tendency as the R-R interval data. Responses (LF/HF) in sympathetic system had no sign of effects by the hot compress and increased in each measure points. (Those data are illustrated in Figure 2.)
- 3) Blood flow data to the arm and the leg in 5 samples did not show a patterned increase or decrease.

Conclusion: From this study, it is found that the stimulation of hot compress cause the

heart rate variability through vagus nerve. Responses in sympathetic nervous system seem to have been caused by tension of volunteers in the same portion for long period.



Japan Academy of Nursing Science, Third International Nursing Research Conference, September, 1998.

Evaluation of Clinical Nursing Practice Programs in Advanced Home Visit Nursing Stations

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2) Japan Red Cross College of Nursing

After introducing home nursing into a new curriculum, many institutions have been trying to develop the Clinical Nursing Practice (CNP) program for students. At the same time, many issues regarding CNP for students at home visit nursing stations (HVNS) become subjects of discussion. However, the actual status of CNP for students, practicing at HVNS, is not known. The purpose of this study was to describe the actual conditions of CNP for students in HVNS, and to develop standards for their learning experience.

Methods: Studies were conducted at nine HVNS, which were regarded as 'advanced' for their quality of nursing activities and of CNP for students by the Association of Japan Home Visit Nursing Service. Subjects of the study were all CNP sites for students. Questionnaires, provided to an administrator and a preceptor in HVNS, requested general information regarding the station, educational institutions, and the content and objectives of CNP for students. They were analyzed by sorting according to the period of CNP. A time study was introduced to monitor the time used for students in CNP, such as in preparation, practice, conferences, recording, and other. The study was conducted from October to November 1997.

Results: During the period of the study, a total of 60 students from 11 educational institutions participated in CNP. The CNP program was performed in one to four-day courses with an average of 2.3 students for each CNP. The curriculum corresponded to "Adult Nursing", "Elderly Nursing", and "Community Nursing". The main content of the CNP programs was orientation, visiting clients, and conferences. The distribution of working time of HVNS staffs in the one-day course was quite different from the two-day or more courses. The time for visiting clients increased the duration of CNP, while time for pre-meeting, orientation, and evaluation of the program was independent of the duration of CNP. Time-efficiency was highest in the three-day course, followed by

the four-day and two-day courses, and the lowest was the one-day course. Within the content of CNP programs, orientation, visiting clients, and conferences were regarded as appropriate by both students and preceptors at HVNS. As for the duration of CNP, evaluation of three-day and four-day courses demonstrated appropriateness of programs as well as achievement of objectives.

Discussion: Results of the study suggested that CNP at HVNS is appropriately performed in a three to four-day course from the aspects of time-efficiency and cost effectiveness. Because one-day course needs as much time for preparation as other courses. Time for visiting clients is also shorter. Regarding the content of CNP, orientation, visiting clients and conferences were reasonable for the length of the CNP period. However, continuous review to meet the revised standard program for CNP is needed.

Analysis of Related Factors in Professional Autonomy among Nurses

Yasuko Koyano

St. Luke's College of Nursing

The purpose of this study was to define the characteristics of professional autonomy and related factors among nurses. The subjects were 1007 staff nurses employed in acute care hospitals. The subjects' mean age was 27.0, and the mean of their clinical experience was 5.0 years. Review of their educational background revealed that 50.3 % graduated from a basic diploma program, 30% graduated from colleges or universities and 19.6% graduated from junior colleges.

The Dempster Practice Behavior Scale (DPBS) was constructed using four subscales - empowerment, actualization, valuation and readiness. Among the subjects, the characteristics of professional autonomy, valuation and readiness, tended to be low. Various correlations were noted between personal or social factors and professional autonomy. A strong correlation in self-actualization was noted among the nurses. Progressively weaker correlation was noted in Self-Efficacy. The lowest degree of correlation was noted in Locus of Control.

In the results of the t-test, the DPBS mean scores were considered meaningful and were noted to be higher in nurses who carry responsibility. In addition, as a result of multiple regression analyses, strong influence in self-actualization was noted among the nurses. Progressively weaker influence was noted in Self-Efficacy and clinical experience. The lowest degree of correlation was noted in nurses who carry responsibility.

Proceeding of the 18th Academic Conference, Japan Academy of Nursing Science,
218-219, 1998.

The Characteristics and Related Factors of Self Efficacy in Nurses

Yasuko Koyano

St. Luke's College of Nursing

The purpose of this study was to define the characteristics of general self-efficacy and related factors in nurses. The subjects' mean age was 27.0, and the mean of clinical experience was 5.0 years. The educational background of the nurses revealed that 50.3 % graduated from a basic diploma program (two or three-year program), 30% graduated from colleges or universities and 19.6% graduated from junior colleges. The characteristics of self-efficacy in the subjects tended to be low. These characteristics were compared to self-efficacy factors in the general female population, and the general self-efficacy scale (GSES) mean score of the subjects was found to be less than that of the general female population.

Some correlation was noted between personal factors and self-efficacy. A strong correlation in self-actualization was noted among the nurses. Progressively weaker correlation was noted in Locus of Control. The lowest degree of correlation was noted in personal factors related to age and clinical experience.

In the results of the t-test, the GSES mean scores were considered meaningful and were noted to be higher in nurses who carry responsibility. The GSES subscale that rates positiveness of act showed higher scores and the subscale that rated anxiety related to failure showed the lowest scores.

In addition, as a result of Analysis of Variance (ANOVA), the GSES mean scores in the clinical area were considered meaningful and were noted to be highest on the obstetric unit. As a result of the t-test, the GSES mean scores in midwives were higher than that of general practice nurses. The GSES mean scores in educational background were meaningful and were noted to be highest among junior college graduates.

It is suggested that enhancing the general self-efficacy of nurses is the task of the future. This is true because self-efficacy functions as the important variable in effort and time when people face difficulty in selecting and carrying out a task.

Journal of St. Luke's Society for Nursing Research, 2(2), 27, 1998.

Activities of Daily Living and Risk of Subsequent Long-Term Mortality in the Elderly: A 19.5-year cohort study.

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Background and Objectives: Although several studies indicated that lower the activities of daily living (ADL) was related with higher total mortality, follow-up periods of these studies are short and long term association is not known.

To assess long-term association between ADL and risk of subsequent mortality in the elderly, we conducted a community based 19.5-year prospective cohort study in Japan.

Methods: In 1976 or 1977, among residents of 65 years and older in the S-city at Niigata prefecture who received annual health screening examination were asked to participate the study. Trained interviewers conducted survey about ADL using a questionnaire. ADL was assessed by 12 factors and each factor was scored from 0 to 4. According to the total score, baseline ADL was ranked into 4 strata, totally independent (36), having difficulty in one factor (35), having difficulty in 2 factors (32-34) and not independent (31 or less). The participants were followed-up until 1995, and relation between baseline ADL and succeeding total mortality was analyzed by the Cox proportional hazards model and Kaplan-Meier method after adjusting with age and sex.

Results: At baseline 725 men and 986 women, 80% and 91% of total residents respectively, were surveyed. During observation, 35 subjects (2%) were moved out from the cohort and 29 subjects (1.7%) were dropped-out from the study. Until 1995, 590 men (81.4%) and 716 women (72.8%) were died. At baseline, age and ADL score correlated inversely. Total mortality was higher in those with lower ADL strata. When the observation period was divided into 4 terms, 0 to 1 year, 1 to 5 years, 5 to 10 years and 10 to 19.5 years, the relation was stronger in the earlier period (difference in hazard ratio $p=0.026$).

Conclusion: Since low ADL related to high mortality in elderly people and the relation was strongest in the first 1 year, effort to support elderly people to maintain ADL from the earlier period is important to improve not only short term but also long term prognosis.

Partially supported by the grant from the St. Luke's Life Science Institution Supplement to Journal of Epidemiology, 9(1) Jan pp80, 1999.

**Evaluation Research on the Use of
The Foot Bath for Pregnant Women
Experiencing Low Back Pain**

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St. Luke's College of Nursing

Objective: The purpose of this research is two-fold-(1) to evaluate the effect of the “Foot Bath” for pregnant women experiencing low back pain, and, (2) to apply the Roy Adaptation Model to evaluation research.

Design Methods: The subjects in this study were pregnant women, who were experiencing low back pain. The independent variable was the foot bath intervention for women in the experimental group. As this research was based on the Roy Model, the dependent variable was the complication of low back pain as the maladaptive reaction, and was assessed from the four adaptive modes.

Results: The experimental group (30 subjects aged 25-42 with a mean age of 30.9) and the control group (31 subjects aged 20-37 with a mean age of 29.6) were recruited through convenience sampling. The age of gestation for each subject was calculated to be within 21-37 weeks. There were no significant differences between the experimental group and the control group in regard to chronological or gestational age.

The findings are as follows. The foot bath was noted to reduce the strength of pain and effected a smaller decline in the self-care function. After intervention, subjects in the experimental group showed significant reduction in the strength of pain ($p<0.001$). And, “a degree of reduction of the strength of pain” in the experimental group was greater than that in the control group ($p<0.05$). The self-care function in both groups was noted to decline with the age of gestation. Within the period of intervention, “a degree of decline of self-care function” in the experimental group was smaller than that of the control group ($p<0.05$).

It showed that the foot bath had an immediate effect on reducing the strength of pain and gaining a comfortable feeling. In addition, the skin temperature of the lower back ($+0.3-0.6^{\circ}\text{C}$) and the foot ($+0.8-1.6^{\circ}\text{C}$) increased rapidly after the foot bath.

In addition, the following characteristic of using the Roy Model for evaluation research was suggested: the evaluation became clear by the focalizing of intervention on one

stimuli of the physiological mode.

Conclusion: The foot bath is considered to be an effective intervention for pregnant women experiencing low back pain. And the useful point of using the Roy Model for evaluation research was suggested.

Third International Nursing Research Conference, Japan Academy of Nursing Science,
235, 1998.

The Study of Nurses' Perception on Infertility Treatment and Nursing Care

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Purpose: High tech reproduction technology for treating infertility has made rapid progress and has widely been used in Japan. In most cases, patients have to attend a hospital for long period of time to receive treatment but there is no guarantee that they will have a child as a result, which puts them under a lot of stress. At present, the role of nursing for those who take infertility treatment has not been clarified yet. The purpose of this study was to know how relationship nurses had with these patients and what opinions they had about infertility care.

Methods: Subjects were the chief and staff nurses who were engaged in nursing for infertile patients at the institutes that provided infertility treatment. We prepared two types of questionnaires: one for chief nurses (8 items) and the other for staff nurses (24 items). We chose 264 medical institutes that provided infertility treatment and asked them to cooperate with us in conducting the study.

Results: The questionnaires were returned from 151 (57.2%) of the medical institutes. Of them, 151 (57.2%) were those for chief nurses and 963 (50.7%) those for staff nurses. The average score of the 11 items (the role of nursing in infertility treatment: the total scores per question ranged from 11 to 44) was 27.7 (SD5.9). The item with the highest average score was "Speaking to patients to loosen them up" (3.1 (SD0.65)), while the item with the lowest average score was "Introduction of self-help groups and counseling service to patients" (1.7 (SD0.76)). The factors having a significant difference in scores for the role of nursing included the type of institutes, type of sections, provision of counseling service, provision of hospitalization facilities, opportunities of infertility education after graduation and attitude toward infertile patients/nursing for them. The factor analysis of the 11 items concerning the role of nursing produced four factors. The first factor was the one of giving advice to infertile patients, the second the one linking infertile treatment and doctors and patients, the third the one of taking care of patients

during treatment and the fourth the one regarding cooperation with job types and institutes concerned with infertility (treatment). The cumulative contribution rate up the fourth factors was 70.0%.

Conclusion: Many facts about infertility treatment and the institutes, the scores for the role of nursing in infertility treatment and related factors, and the factors consisting of the roles and functions of nursing were made clear.

Third International Nursing Research Conference, Japan Academy of Nursing Science, 239, 1998.

Research supported by Health Sciences Research Grants (Comprehensive research on children and families)

Aspects of Midwifery Care in Josanjo Evaluated Through Mother-Midwife Interaction.

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Purpose: Midwifery care in Josanjo requires both physical and psychosocial nursing skills. The purpose of this study is to identify, through mother-midwife interaction, high quality activities in midwifery care that emphasize these skills.

Methods: Data collection and analysis occurred from July through November in 1997. The participant observations and interviews were conducted with mothers who visited at two Josanjo and with the midwives who cared for them. Mothers and midwives were provided explanation about the observation activities and their consents were obtained prior to the data collection. The observation activity was carried out by three investigators. Several observation periods were chosen during preparation for home birth, during antenatal care, during labor, and during physical care such as breast massage after birth.

Results: Data analysis produced four characteristics of midwifery care, which are demonstrated through mother-midwife interaction. They are the following:

- 1) Dialogue with the mother regarding her experience
 - a) Sharing her experience,
 - b) Showing concern through listening
- 2) Supporting of the mother's self-identity
 - a) Increasing the mother's self-awareness
 - b) Encouraging self-decision making
- 3) Increasing understanding of unknown subjects
 - a) Expanding the mother's consciousness of her fetus
 - b) Encouraging her to answer her own questions
 - c) Increasing her knowledge for practical application
- 4) Supporting her feeling – "I can do it!"
 - a) Demonstrating belief in her abilities
 - b) Providing appropriate caring for the occasion

Conclusion: Four aspects of midwifery care were identified through the mother-midwife

interaction. Midwives accepted the individual mother's needs, feeling, and wishes and provided holistic health care. Through the process of care, mothers actively participated in their life. Midwives developed a cooperative mother-midwife relationship, different from the more paternalistic physician or nurse – patient relationship.
(Josano; The clinic that midwives care for women and family independently.)

Third International Nursing Research Conference, Japan Academy of Nursing Science,
243,1998.

Changes in Sleep Patterns of Young Women from Late Pregnancy to Postpartum: Relationships to Their Infants' Movements

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Summary — We studied changes in the sleep patterns of ten young women from late pregnancy (36 weeks) to the sixth postpartum week, focusing on the relationship between the women's sleep patterns and their infants' movements. The mothers' polysomnograms and their infants' ankle actigrams were simultaneously recorded using a Medilog 9000 at home in three sessions, during the first, third and sixth postpartum weeks. The mother-infant pairs slept in close proximity. Two subjects had difficulty with their infants and were dealt with as a separate group. Analysis for the eight subjects who adapted well to the postpartum period showed that wake time after sleep onset increased significantly during the postpartum period compared with late pregnancy given responsibility for feeding. Stage 3 + 4 and Stage REM did not change across the four sessions (pregnancy, first, third and sixth postpartum weeks), but Stage 2 decreased significantly from pregnancy to postpartum. There was a high synchronization between infants' movements and mothers' wakefulness. Eight mothers did not complain of sleep disturbance, while the two mothers who had difficulty with their infants did. We suggest that mothers who tolerate well sleep interruption arising from feeding and maintain their Stage 3 + 4 and REM should not be considered as suffering from sleep disturbance. Mothers who have difficulty with their infants and complain of sleep disturbance should be considered as suffering from sleep disturbance.

Perceptual and Motor Skills, 87.1043-1056, 1998.

Health (Kenkou)-Concept and the Genki in the First-year Nursing Students

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Health (Kenkou)-concept and the Genki is synonymy in Japanese.

The purposes of this study are to know the Health (Kenkou)-concepts and the Genki of this first-year nursing students.

In April 1998, we conducted a questionnaire on 80 first-year nursing students in the S College of Nursing.

Health (Kenkou)-concepts and the Genki were questioned by open type. We investigated them by health definition of WHO: physical, mental and social points of view, and descriptive expression. We analysed the results in comparison with those of 66 students of the W University who major in Human Science.

The findings were as follows:

- ①Both subjects have similar backgrounds.
- ②The subjects have some descriptions for the Health (Kenkou)-concepts and the Genki in common.
- ③The Health (Kenkou)-concepts are related to physical condition and disease, and the Genki depends on mental condition.

It is important to develop for nursing students to ask and ponder own definition by common words.

Bulletin of St. Luke's College of Nursing, 25, 17-24, 1999.

Ethics and Human Rights Issues in Nursing Practice

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Background: Last year, a law was passed in Japan supporting organ transplantation. This action offers Japanese nurses opportunities to consider the ethical issues raised by this medical procedure, although as yet in Japan, organized programs in ethics education have not been developed.

In January 1998, the theme of the 30th Open Seminar of St. Luke's College of Nursing was Ethics Education. As part of the program, the Open Seminar reviewed the results of a survey performed in the United States in 1993-1995 by Sara T. Fry and others.

Purpose: The study had three purposes: 1) to identify the ethical issues encountered by Japanese practicing nurses and to learn how Japanese nurses handled this direct involvement with ethical and human rights issues in their practice; 2) to identify Japanese practicing nurses' perceived needs for clinical ethics education; and, 3) to compare and assess the results of the Japanese and American nurses' responses to the questionnaire.

Design Methods: The study was designed as a research survey using a questionnaire. The questionnaire was the same as that used in the American survey. The reliability and validity of the questionnaire had already been ascertained. The questionnaire was translated into Japanese and a pre-test was administered to graduate students. The questionnaire was sent to practicing nurses with at least one year's experience. The mailing and detention methods were used.

Results: 229 nurses participated in the survey; representing a 46.7% response rate to the questionnaire. Almost all were female, with a mean age of 31.7 years. The mean experience level was 9.5 years. The most frequently experienced ethical issues by Japanese nurses were: 1) protecting the patient's rights/human dignity; 2) respecting the patients' informed consent; and, 3) the occurrence of nurse-physician conflict. These results are similar to those of the U.S. survey.

The following results showed some difference between American and Japanese

respondents. The most personally disturbing issues were: 1) nurse-physician conflicts; 2) caring for patients or families who were uninformed or misinformed about treatment, prognosis; and, 3) the issues of resuscitating patients without knowing their wishes. In their most recent experience with an ethical issue, Japanese nurses responded in one or more ways: 1) discussion with nursing peers; 2) discussion with nursing leadership; and, 3) discussion with physician, (these are similar to the American study). Japanese also responded by 4) discussion with patients' families; and 5) discussion with their own family or friends (these responses differed from those of American nurses).

The study found that Japanese nurses assessed the need for ethics education as very high.

Conclusion: We can use these results in considering Ethics Education in Japan.

**Reliability and Validity of the Japanese Version of
Role Conflict and Ambiguity Scale (RCAS) and that of Nursing Stress Scale (NSS):
Development of Instruments to test the King's Theory of Goal Attainment**

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A proposition of King's Theory of Goal Attainment referred to the relation between nurses' role conflict and stress in nursing situation. The purpose of this study was to develop instruments to test this proposition, and to test the validity and reliability of the instruments. Role Conflict and Ambiguity Scale developed by Rizzo et al. and Nursing Stress Scale developed by Grey-Toft et al. were translated into Japanese by the process of four steps including a pilot study and back-translation method, and were refined from Japanese Version 1 to the Japanese Version 4. Reliability and Validity of the Japanese Version 4 of Role Conflict and Ambiguity Scale (JRCAS) and Nursing Stress Scale (JNSS) were tested with 406 staff nurses who worked at 35 general hospitals in Japan. The result of this study showed Chronbach's alpha for JRCAS of 0.72-0.81. The Result of Factor analysis of JRCAS was similar to that of the original version. These findings suggested that JRCAS was acceptable as instrument to test the King's Theory. Chronbach's alpha for JNSS was 0.91. The result of factor analysis of JNSS was similar to that of the original version with a small difference. The result suggested the further exploration to verify the construct validity of JNSS in order to test the King's theory.

Journal of Chiba Academy of Nursing Science, 3(2); 17-24, 1997.

**The Relationship Between Stress in Nurse-Patient Interactions and
Developmental Tasks Accomplishment of Nurses;
Using King's Theory of Goal Attainment as Theoretical Framework**

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The purpose of this research was to explore the relationship between stress in nurse-patient interactions and developmental tasks' accomplishment through sense of identity of nurses. King's theory of goal attainment was used as the theoretical framework of this research. The research subjects were 535 nurses employed in 35 general hospitals in Japan. The research utilized Japanese Version of Nursing Stress Scale (NSS) and Erikson Psychosocial Stage Inventory (EPSI). In data analysis, Pearson coefficient of correlation, t-test, and one-way analysis of variance were used. The result indicated that there was significant correlation between the total point of NSS and that of EPSI, and this finding showed the relationship between stress in nurse-patient interactions and sense of identity of nurses. Furthermore another result indicated the characteristics which related to both stress and sense of identity were the future planning and age, and this suggested nurses whose stress was at low level and whose sense of identity was at high level were older nurses and wanted to keep her career of nursing in the future.

Journal of School of Nursing Chiba University, 20: 1-6, 1998.

**Public Opinion to Nursing and Future of Nursing Educational Tasks;
Focused on Newspaper Articles**

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The purpose of this research was to clarify public opinions toward nursing, and to discuss future issues of nursing education. The data source of the research was Asahi newspaper articles, and the content analysis was used to analyze the data. The results of this research were, nursing practice, working environment for nurses, nursing system, nursing education, social value of nursing, and nursing/religion as the public opinions toward nursing. These results suggested that it was important to teach professional attitude toward nursing and to enforce the followings with nursing education, ability of critical thinking to adjust and improve of working environment for nurses, nursing system and nursing educational program.

Journal of Chiba Academy of Nursing Science, 4(1); 1-7, 1998.

St. Luke's College of Nursing
World Health Organization Collaborating Centre for
Nursing Development in Primary Health Care

WHO Collaborating Committee (April 1998 – March 1999)

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