



The 5th International Conference of Health Behavioral Science  
Education on Health and Environment:  
Integrated Medicine and Environmental Education

17-21 August 2006

Bangkok, Thailand  
Phranakhon Grand View Hotel  
Phranakhon Rajabhat University

Organisers Japan Academy for Health Behavioral Science  
International Association of Earth-Environment and Global-Citizen

Co-Organiser Phranakhon Rajabhat University

Supported by International Sociological Association, The Japanese Society of Health and Medical Sociology, Japan Academy for Mental Health Sociology, Japan Academy for Health Counseling, The Association for Preventive Medicine of Japan, Japanese Association of Alternative, Complementary, Traditional Medicine, Japanese Society for Integrative Medicine, Japan Holistic Medicine Society, The Japan Dental Association, Japanese Nursing Association, Japanese Society for Hospice and Home Care, Home Care Ensuring Clinic Network in Japan, The Asia-Pacific Network for Global Change Research(APN), Institute for Global Environmental Strategies (IGES) Kansai Research Centre, The Japanese Society of Environmental Education: Kansai

# ICHBS2006

**The 5<sup>th</sup> International Conference of  
Health Behavioral Science**

**Education on Health and Environment:  
Integrated Medicine & Environmental Education**

**Abstracts**

**17-21 August 2006**



**Organisers**

**Japan Academy for Health Behavioral Science**

**International Association of Earth-Environment & Global-Citizen**

**Edited by:**

**Fumiaki TANIGUCHI**

**Executive Director**

**Executive Committee Secretariat of the 5<sup>th</sup> International**

**Conference of Health Behavioral Science**

**c/o General Institute for the Environment**

**Konan University - Kobe, Japan**

**Tel /Fax +81-78-435-2368**

**E-mail fumiaki@konan-u.ac.jp**

**Coedited by:**

**Taniguchi Office, Konan University**

**Environmental Education Center, Phranakhon Rajabhat University**

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# The 5<sup>th</sup> International Conference of Health Behavioral Science

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## MESSAGE

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We in the past held four meetings for the International Conference of Health Behavioral Science. The 1<sup>st</sup> conference, back in August 1988 in Hawaii, USA was under the main theme of “Traditional & Modernity in Health Care”. The 2<sup>nd</sup> conference, in September 1991 in Tokyo, Japan received around the main theme of “Health Care Systems: How Should It Be in 21<sup>st</sup> Century”. The 3<sup>rd</sup> conference, also in Tokyo, in September 1996 was under the main theme of “Crisis Behavior toward Growth & Solidarity”. The 4<sup>th</sup> conference, in April, 2001 in Kobe, Japan was under the main theme of “Integrated Approaches to Health”. Now, the 5<sup>th</sup> International Conference of Health Behavioral Science is to be held in August 2006 in Bangkok, Thailand under the main theme of “Education on Health and Environment: Integrated Medicine and Environmental Education”.

The external environmental problems relating to life and health have caused a serious situation, which in turn causes a further serious future situation. The environmental problems of the past directly contributed to our current internal environmental problems via our genes and memories, and they make it pretty difficult for us to surmount the current external environmental problems.

Behavioral science aims to get a hold of the mutual functions between life and environment at various levels from molecules, cells, and tissues to individual people, groups of people, society, the earth and the universe, to explicate them systematically as well as empirically, and thus to contribute to the solution of our problems.

At the forthcoming 5<sup>th</sup> conference we plan to study by way of behavioral sciences how to solve health problems as the mutual functions between life and environment from the view point of education.

I hope for the enrichment of the conference through lively and international discussions among the participants from various countries and specializations, and for the pursuit of effectual methods for an educational solution.

**Prof. Dr. Munakata, Tsunetsugu**  
*Chairperson*  
*The 5<sup>th</sup> International Conference of*  
*Health Behavioral Science*  
*August 2006*

## MESSAGE

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The Japan Academy for Health Behavioral Science will host the 5th International Conference of Health Behavioral Science, *Education on Health and Environment: Integrated Medicine & Environmental Education*, which will be held August 16th-21st, 2006, in Bangkok, Thailand. The Conference will include keynote speeches, a local excursion to an integrative health care facility, oral presentations, poster presentations, a symposium, satellite symposiums, workshops, and an optional sightseeing tour.

We will take an interdisciplinary approach drawing on each of the different sciences to enable the most thorough discussion of health behavioral science. Currently, we are faced with various problems regarding life and bioethics due to the development of such life science technology as cloning techniques, abortion, sterilization, artificial contraception, chemotherapy, surrogate pregnancy, gene therapy, organ transplants and regenerative medicine. Issues such as the rights of brain-dead patients and related concerns dealing with informed consent are also at the center of contemporary bioethics. All of these issues demand a deep understanding of the roles various kinds of environments play in human life.

In regards to global environmental problems, there is the destruction of the natural environment such as global warming, acid rain, desertification, deforestation, and a decrease in biodiversity. Problems in the social environment include the North-South problem, the widening gap between the levels of social and economic systems in the world, and the concept of sustainability and development. Another consideration is the mind environment which relies on input from both the natural and the social environment. Disturbances in those environments can negatively affect the environment of the mind, a problem which is becoming increasingly noticeable in many important social facets of life such as communication. This imbalance in the mind environment demands an overhaul both of lifestyle choices and environmental ethics. Accordingly, we need to make efforts towards solving the problems surrounding bioethics and the environment. Therefore, we will discuss the goal of a healthy life through a sound environment from the holistic and integrative perspective.

In order to restore and promote healthy life and sound environment in the 21st century, our goals are to promote the study and the discussion of Integrative Medicine and Environmental Education from a global perspective and to encourage a deeper level of international exchange among countries. Throughout the Symposium, in addition to the topics mentioned above we will also discuss the latest developments in the fields of health and the environment. We will also promote health behavioral science and environmental education studies for the goal of a sustainable future.

We welcome all participants to the International Conference. And we would like to express our deepest appreciation for Dr. Preang KITRATPORN, President of Phranakhon Rajabhat University and members of Environmental Education Center for the cooperation of this conference.

**Fumiaki TANIGUCHI**  
*Executive Director*  
*The 5<sup>th</sup> International Conference of*  
*Health Behavioral Science*  
*August 2006*



# CONFERENCE OUTLINE

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- 1 Theme Education on Health and Environment:  
Integrated Medicine and Environmental Education
- 2 Dates Wednesday, 17 August - Monday, 21 August, 2006
- 3 Venues Bangkok, Thailand  
Phranakhon Grand View Hotel  
Phranakhon Rajabhat University
- 4 Language English
- 5 Organisers Japan Academy for Health Behavioral Science  
International Association of Earth-Environment and Global-Citizen
- 6 Executive Body Committee for the 5<sup>th</sup> International Conference of Health Behavioral Science
- 7 Co-Organiser Phranakhon Rajabhat University
- 8 Supported by International Sociological Association, The Japanese Society of Health and Medical Sociology, Japan Academy for Mental Health Sociology, Japan Academy for Health Counseling, The Association for Preventive Medicine of Japan, Japanese Association of Alternative, Complementary, Traditional Medicine, Japanese Society for Integrative Medicine, Japan Holistic Medicine Society, The Japan Dental Association, Japanese Nursing Association, Japanese Society for Hospice and Home Care, Home Care Ensuring Clinic Network in Japan, The Asia-Pacific Network for Global Change Research (APN), Institute for Global Environmental Strategies (IGES) Kansai Research Centre, The Japanese Society of Environmental Education: Kansai

# PROGRAMME

	Dates	Contents of Conference
<b>Day 0</b>	Wednesday, 16 August	Dong Muang International Airport (Bangkok)
		<b>Excursion:</b> Visit to Vihāra & Ayuthaya
	7:00-7:30	Participant Registration at Phranakhon Grand View Hotel, Phranakhon Rajabhat University
<b>Day 1</b>	Thursday, 17 August	7:30-10:30 Departure to Lopburi from Bangkok at 7:30 am
	10:30-12:30	Visit to Vihāra (Wat Phabaat Naampu)
	12:30-13:30	Lunch
	13:30-15:30	Sightseeing in Ayutthaya
	15:30-18:00	Leave for Bangkok – course over by 18:00 pm
<b>Day 2</b>	Friday, 18 August	8:15-9:30 Participant Registration at Phranakhon Grand View Hotel
	8:30	Set up displays of poster presentation
	9:30-10:00	<b>Opening Ceremony</b>
		<b>Opening Address</b>
		- Dr. Preang KITRATPORN, President, Phranakhon Rajabhat University, THAILAND
		- Prof. Dr. Tsunetsugu MUNAKATA, President, the 5 <sup>th</sup> International Conference of Health Behavioral Science, JAPAN / Executive, International Sociological Association
	10:00-11:00	<b>Keynote Speech I</b>
		Dr. Kazuhiko ATSUMI, President, Japanese Society for Integrative Medicine / Professor Emeritus, Tokyo University, JAPAN
		“New Paradigm, Integrative Medicine: Towards Future Health Care System”
	11:00-12:00	<b>Keynote Speech II</b>
		Dr. Nancy TURNER, University of Victoria, CANADA
		“Keeping Healthy: Traditional Medicine, Health and Well-being for Canadian First Nations”
	12:00-13:30	Lunch
	13:30-15:30	<b>Oral and Poster Presentations</b>
		* A-1: Health Behavioral Science Session –Oral Presentation
		* A-2: Health Behavioral Science Session –Oral Presentation
		* B-1: Environmental Education Session – Oral Presentation
		* B-2: Environmental Education Session – Oral Presentation & Student Meeting
		* Poster Presentations
	15:30-16:30	Tea Break
	16:30-17:30	Oral Presentations - continued
	18:00-20:00	<b>Welcome Party</b> (Thai Traditional House)
<b>Day 3</b>	Saturday, 19 August	9:00-10:00 Participant Registration at Phranakhon Grand View Hotel
	10:00-11:00	<b>Keynote Speech III</b>
		Prof. Dr. Tsunetsugu MUNAKATA, University of Tsukuba, JAPAN
		“Dependence and Autonomy in Integrative Health: Schema for Behavior Change”
	11:00-12:00	<b>Keynote Speech IV</b>
		Prof. Fumiaki TANIGUCHI, Konan University, JAPAN
		“Perspective of Ethical Education Focusing on Integrative Medicine and Comprehensive Environmental Education”

12:00-13:30	Lunch
13:30-16:00	<p><b>Symposium</b></p> <p><b>Education on Health and Environment: Regarding Integrative Medicine and Comprehensive Environmental Education</b></p> <p><b>Coordinator:</b></p> <ul style="list-style-type: none"> <li>- Prof. Kazuhiko FUJISAKI, Gifu University, JAPAN</li> <li>- Prof. Laddawan KANHASUWAN, Environmental Education Center specialists, Phranakhon Rahabhat University, THAILAND</li> </ul> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>- Prof. Kazuhiko ATSUMI, Director, Japanese Association of Alternative, Complementary, Traditional Medicine, JAPAN "International Promotion on Integrative Medicine and Comprehensive Studies of CAM"</li> <li>- Dr. Shokichi TANI, Director, Komatsu Hospital, JAPAN "Medicine of Environment and Bioethics"</li> <li>- Prof. Naoyasu MOTOMURA, Osaka University of Education, JAPAN "School Crisis Intervention in Japan"</li> <li>- Dr. Nancy TURNER, University of Victoria, CANADA "Reconnecting Youth to Traditional Knowledge for Health and Well-being: Examples from British Columbia"</li> <li>- Prof. Siritwat SOONDAROTOK, Director, Environmental Education Center, Phranakhon Rajabhat University, THAILAND "Comprehensive Environmental Education Focusing on Sustainable Agriculture and Traditional Culture"</li> <li>- Prof. Manoj L. SHRESTHA, Konan University, NEPAL "Traditional Knowledge and Intellectual Property Rights: Problems, Prospects and Issues"</li> </ul>
16:00-16:30	Tea Break
16:30-18:30	<p><b>Satellite Symposium I</b></p> <p><b>Forum A-1: Practical Study on Behavioral Modification</b></p> <p><b>Coordinator:</b></p> <ul style="list-style-type: none"> <li>- Prof. Dr. Tsunetsugu MUNAKATA, University of Tsukuba, JAPAN</li> <li>- Prof. Ben YANAI, Kansai University of Welfare Sciences, JAPAN</li> </ul> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>- Prof. Michiyo OKA, Gunma University, JAPAN "Behavioral Modification in Chronic Illness Patients"</li> <li>- Dr. Sayuri HASHIMOTO, University of Tsukuba, JAPAN "Internet Based Remote Counseling to Support Physical Exercise Behavior in Elderly People"</li> <li>- Prof. Mitsuki NIREGI, Rissho University, JAPAN "The Modification of Health-Related Quality of Life in Hospitals by Using Narrative Analysis"</li> <li>- Prof. Yuko TAKAHASHI, Nara Women's University, JAPAN "Participation in Marathon of Tobacco Abstinence"</li> </ul> <p><b>Forum B-1: Common Materials for Environmental Education in the Asia-Pacific Region: Establishing International Guidelines for Environmental Education (II)</b></p> <p><b>Coordinator:</b></p> <ul style="list-style-type: none"> <li>- Prof. Azizan BAHARUDDIN, University of Malaya, MALAYSIA</li> </ul>

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- Prof. Fumiaki TANIGUCHI, University of Konan, JAPAN

**Panelists:**

- Prof. Jariya BOONJAWAT, Chulalongkorn University, THAILAND

"Common Materials for Environmental Education in the Asia-Pacific Region"

- Prof. Siriwat SOONDAROTOK, Director of Environmental Education Center, Phranakhon Rajabhat University, THAILAND

"Environmental Education Programmes in Thailand"

- Prof. Manoj L. SHRESTHA, Konan University, NEPAL

"Common Materials for Environmental Education and Guidelines: Public Awareness, Management and Biodiversity"

- Prof. Nancy J. TURNER, University of Victoria, CANADA

"Environmental Education Materials: Some examples from British Columbia, Canada"

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**Day 4** Sunday, 9:00-10:00  
20 August 10:00-12:00

Participant Registration at Phranakhon Grand View Hotel

**Satellite Symposium II**

Forum A-2: Health Promotion and Developing Participation of the General Public

**Coordinator:**

- Prof. Tadaharu NAKAO, Yamanashi Gakuin University, JAPAN

**Panelists:**

- Prof. Kazuhiko FUJISAKI, Gifu University, JAPAN

"Planning Health Promotion Programs with Resident Participation"

- Dr. Eiko KOBORI, Kyoto University, JAPAN

"HIV Risk Behaviors among Ethnic Minorities in Northern Thailand"

- Mr. Kreangkrai CHAIMAUNGDEE, The Life Skills Development Foundation, THAILAND

"Child-Friendly School and Community-Based Approach to Solving the Problems of HIV/AIDS Affected Children"

Forum B-2: How to Introduce Environmental Education in National Government Parks: Demonstration of Environmental Education Using On-line TV-net Meeting System between Japan and Thailand

**Coordinator:**

- Prof. Fumiaki TANIGUCHI, Konan University, JAPAN

- Prof. Laddawan KANHASUWAN, Environmental Education Center specialists, Phranakhon Rajabhat University, THAILAND

**Panelists:**

- Dr. Siriwat SOONDAROTOK, Phranakhon Rajabhat University, THAILAND

- Dr. Chinatat NAGASHINHA, Phranakhon Rajabhat University, THAILAND

"Conservation of National Parks in Thailand"

- Mr. Shuji SUZUKI, Director, Aina National Government Park in Kobe, Ministry of Land, Infrastructure & Transport, JAPAN

"Conservation and Utilization of *Satoyama* in the City Park"

12:30

Displays of posters taken down

12:00-13:30

Lunch

13:30-15:00

**Workshops**

Workshop A: (Health Behavioral Science) Folk Medicine and Massage in Thailand

Workshop B: (Environmental Education) Activities of Environmental Education for Development of Nature Trail: How to Improve Handbooks for

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		Teachers and Students
	15:00-15:30	Tea Break
	15:30-17:00	Workshops
	17:30-19:30	<b>Closing Remarks &amp; Farewell Party</b> (Thai Traditional House)
<b>Day 5</b>	Monday, 21 August	<b>Optional Tour</b> (Sightseeing in Bangkok) 21:00pm Dong Muang International Airport

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### \*Excursion

- |              |  |
|--------------|--|
| 1 Date       | Thursday, 17 August, 7:30am-18:00 pm   |
| 2 Outline    | Tour a Vihāra (Wat Phabaat Naampu), a Buddhist hospital which cares for terminally ill patients such as those infected with HIV in Lopburi. This is an opportunity to observe an integration of health and spiritual care. |
| 3 Course Fee | JPY5000  |

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### \*Satellite Symposium

#### **Forum A-1 Practical Study on Behavioral Modification**

No one plans on becoming sick and being forced to view life from a patient's standpoint. But it happens every day to seemingly normal people when suddenly their bodies betray them. Such rapid onset results in many patients having a lot of difficulty fully comprehending their situation. This can potentially put them at odds with medical staff whose objective treatment goals may be out of the range of understanding for many patients. This creates the main gap between the patient's perspective and the staff's intentions. In reality, chronic illness patients (particularly the elderly) need to aggressively tackle the problems surrounding their quality of life and take a pro-active approach to diet and exercise. In this symposium, we will report on practical cases of behavioral modification using lifestyle changes which elderly and chronic illness patients used to make the effort of re-claiming their health.

**Keywords:** Behavioral Modification/Medical Behavior of Health/Health Promotion/Elderly Persons/Chronic Illness Patients, tobacco abstinence

#### **Forum A-2 Health Promotion and Developing Participation of the General Public**

"Health Promotion and Developing Participation of the General Public" can be seen as one of the most remarkable health and medical practices in recent years. Rather than the traditional perspective of patients as simply the recipients of health and medical services, these practices serve to integrate the patients within the framework of health services not only as consumers but as active participants. Such practices will allow providers to give customized health and medical services to its consumers/citizens based on the needs of both parties. We would like to discuss "Health Promotion" as well as how "Developing Participation of the General Public" promotes therapeutic and preventative effects. To discuss this theme, we provide a range of topics such as "Smoking Abstinence," "HIV/AIDS," and "Health Planning." Furthermore, to make this discussion more active and profound, we have organized a panel of scholars, researchers, and NGO members from Thailand and Japan.

**Keywords:** participation of General Public, advocacy, health behavior, health promotion, minorities, HIV/AIDS, boosting development in village, health planning

#### **Forum B-1 Common Materials for Environmental Education in the Asia-Pacific Region: Establishing International Guidelines for Environmental Education (II)**

The fundamental objectives of the Asia-Pacific Network for Global Change Research (APN) project of *Guidelines for Environmental Education Focusing on Environmental Ethics and Human Dimension of Global Change* cooperated between Konan University, Japan and University of Malaya, Malaysia are:  
(1) To make full use of participating countries' experience & knowledge of global change research to

formulate guidelines for environmental education & sustainable development. (2) To fill the existing gaps among teachers & other stakeholders involved, such as global change experts, decision-makers, etc., by developing methods/modules for environmental education that can be used as a basis for countries in Asia.

**Keywords:** Common Terms and Materials/Standardization/Guidelines/Networking/Asia-Pacific Region

**Forum B-2 How to Introduce Environmental Education in National Government Parks: Demonstration of Environmental Education Using On-line TV-net Meeting System between Japan and Thailand**

The objective of environmental education is to foster a warm-minded young generation who would be ready to participate in activities for environmental issues. In this symposium we will connect Aina National Government Park in Japan with Phranakhon Rajabhat University in Thailand to discuss about how to introduce Environmental Education Programme in National Parks using the on-line TV-net meeting system.

**Keywords:** Mind Environment/Essence of Education/National Government Park/e-Learning

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**\*Workshops**

**A (Health Behavioral Science) Folk Medicine and Massage in Thailand**

**B (Environmental Education) Activities of Environmental Education for Development of Nature Trail: How to Improve Handbooks for Teachers and Students**

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**\*Optional Tour**

1 Date	Monday, 21 August, 7:00am-17:00 pm
2 Outline	Gland Palace and Emerald Buddha Temple (Wat Phra Kaew) Tour
3 Course Fee	JPY5000

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# Oral and Poster Presentations

## Oral Presentations

### A-1: Health Behavioral Science Session

**Chair** Tsunetsugu MUNAKATA      **Co-chair** Pornsuk HUNNIRUN

13:30-14:00      **A1-1: Eating Behavior, Psychological Characteristics and Weight Gain in Obese Women**

*Maki OBATA<sup>1</sup> Kumiko YAMAZAKI<sup>2</sup> Tohko TAKAYASU<sup>1</sup> Setsuko YAMAGUCHI<sup>3</sup> Crystal LIN<sup>1</sup>*

*<sup>1</sup> Graduate School of Human Sciences, Waseda University    <sup>2</sup> Faculty of Human Sciences, Waseda University*

*<sup>3</sup> Institute of Physical Fitness Sports Medicine and Rehabilitation, Aichi Medical University*

14:00-14:30      **A1-2: The Relationship within a Family, Spouses, and Siblings in Type A Behavior Pattern: in Specific to Japanese University Students**

*Crystal LIN<sup>1</sup> Kumiko YAMAZAKI<sup>2</sup> Makiko HASHIMOTO<sup>1</sup>*

*<sup>1</sup> Graduate School of Human Sciences, Waseda University    <sup>2</sup> Faculty of Human Sciences, Waseda University*

**Chair** Tadaharu NAKAO      **Co-chair** Kreangkrai CHAIMAUNGDEE

14:30-15:00      **A1-3: Education and Health in Thailand**

*Pornsuk HUNNIRUN*

*Srinakharinwirot University*

15:00-15:30      **A1-4: Self-Help Groups' Websites in Japan**

*Nobuko AKIMOTO*

*Japan Advanced Institute of Science and Technology*

15:30-16:30      **Tea Break**

**Chair** Shokichi TANI      **Co-chair** Takayuki YOSHIOKA

16:30-17:00      **A1-5: A Structural Equation Model Analysis of Psychosomatic Sufferings in Adult Asthma Patients**

*Kaoru FUJISAKI<sup>1</sup> Kazuhiko FUJISAKI<sup>2</sup>*

*<sup>1</sup> Osaka University, Graduate School of Medicine    <sup>2</sup> Gifu University, School of Medicine*

17:00-17:30      **A1-6: An Investigation on the Applicability of Game Theory: an Analysis of the Decision Making Process between Patients and Nurses in a Hospice Setting**

*Miyuki MATSUBARA*

*Kure University, Faculty of Nursing,*

### A-2: Health Behavioral Science Session

**Chair** Kazuhiko FUJISAKI      **Co-chair** Ben YANAI

13:30-14:00      **A2-1: Case reports of Chiropractic: What is Chiropractic?**

*Katsuko MIZUSAWA*

*Konan University, Education and Research Center for Sport and Health Science*

14:00-14:30      **A2-2: Development and Effects of the Health Promotion Program Applying Gaming Simulation Technique**

*Etsuyo NISHIGAKI*

*Wakayama Medical University, School of Medicine/ Kobe University, Graduate School of Cultural Studies and Human Science*

**Chair** Akira NAKAGAWA      **Co-chair** Yoshizo NAKAZA

14:30-15:00      **A2-3: Analysis of Exchange between a Student and her Teacher**

*Ayumi FUJINO*

*Aichi Prefectural College of Nursing & Health*

15:00-15:30      **A2-4: The Relationships between Japanese Workers' Social Skill, Perceived Emotional Support, Self-Image and Mental Health**

*Noriko HIGUCHI<sup>1</sup> Sayuri HASHIMOTO<sup>1</sup> Hirohiko HIGUCHI<sup>2</sup> Tsunetsugu MUNAKATA<sup>1</sup>*

*<sup>1</sup> Graduate School of Comprehensive Human Sciences, University of Tsukuba*

*<sup>2</sup> Higuchi Eye Clinic*

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15:30-16:30 **Tea Break**

**Chair Mitsuki NIREGI Co-chair Yuko TAKAHASHI**

16:30-17:00 **A2-5: Quitting Smoking with the Aid of Nicotine Patches(2<sup>nd</sup> Report): Intermittent Use over a One Year Period**

*Mamiko KUROTANI<sup>1</sup> Miyo NAKADE<sup>2</sup>*

*<sup>1</sup> Aichi Gakusen University <sup>2</sup> Aichi Gakusen College*

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### **B-1: Environmental Education Session**

**Chair Chinatat NAGASHINHA Co-chair Nancy J. TURNER**

13:30-14:00 **B1-1: A Fundamental Study on Sustainability regarding Human Well-being and Environmental Health**

*Riwa WATANABE*

*Osaka Institute of Technology*

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14:00-14:30 **B1-2: Environment Education for Expressway Toll Collectors to Create the Realization on Suspended Particulate Impact**

*Artom THONGPRASONG*

*Phranakhon Rajabhat University*

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**Chair Nancy J. TURNER Co-chair Laddawan KANHASUWAN**

14:30-15:00 **B1-3: A Study of the Cross-curricular Environmental Education Based on Comparative Culture between New Zealand and Japan**

*Eri WATANABE*

*Gifu Prefectural Nakatsu Commercial High School*

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15:00-15:30 **B1-4: Prevention Measures of Dioxins: Dioxins Pollution and Counter Measures**

*Sakingo IMAI*

*Hiroshima Shudo University, Faculty of Human Environmental Studies*

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15:30-16:30 **Tea Break**

**Chair Manoj L. SHRESTHA Co-chair Chaweewn HAEMNAK**

16:30-17:00 **B1-5: A Study of Environmental Education Program on No-Tillage Rice Farming**

*Masao AMANO*

*Konan Hospital College of Nursing*

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17:00-17:30 **B1-6: Environmental Learning Practice Based on a Kaleidoscope Model and Activities in Thailand**

*Kiyoshi NAKAGOMI<sup>1</sup> Takuo NAKAGOME<sup>2</sup>*

*<sup>1</sup> Institute of Natural and Cultural History <sup>2</sup> Institute of Natural and Cultural History*

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### **B-2: Environmental Education Session**

**Chair Manoj L. SHRESTHA Co-chair Sakingo IMAI**

13:30-14:00 **B2-1: Management of Infectious Waste in Kasemrad Rattanatibeth General Hospital through Environmental Education Process**

*Natthakarn PALAKAWONG*

*Phranakhon Rajabhat University*

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14:00-14:30 **B2-2: Environmental Education at Japanese Companies**

*Yoshitake ISHIGAMI*

*Osaka University of Commerce*

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**Chair Laddawan KANHASUWAN Co-chair: Chinatat NAGASHINHA**

14:30-15:00 **B2-3: Environmental Protection from the Perspective of Convention on Biological Diversity (CBD):**



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**with Reference to Access to Benefit Sharing (ABS) of Biological Resources**

*Manoj L. SHRESTHA*

*Konan University*

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15:00-15:30 **B2-4: Morality Deteriorating Environment**

*Paisal SURIYAWONGPAISAL*

*Advisor, PTT Public Co. limited*

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15:30-16:30 **Tea Break**

**Chair Siriwat SOONDAROTOK Co-chair Fumiaki TANIGUCHI**

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16:30-17:00 **B2-5: Toward Realization of Sound Material-Cycle Campus at Konan University**

*Shin SHIMIZU Erina USUI Mamiko KAMAE Mami MAEGAWA*

*Konan University, Department of Human Sciences, Faculty of Letters*

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17:00-17:30 **B2-6: Community Practice : Knowledge Management in a Community Environment Model of Waste Reduction and Separation**

*Jittree POTHIMAMAKA*

*Phranakhon Rajabhat University*

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## Poster Presentations

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**P-1 Investigate the Actual Situation of Integrative Medicine in Japan**

*Yoshihiro INADA*

*Waseda University*

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**P-2 The Characteristics of the Spousal Obligation to Care for One Another**

*Yuko HARASAWA<sup>1</sup> Katsuhide KAWAMOTO<sup>2</sup> Eri IJIMA<sup>3</sup> Masasige SAITO<sup>4</sup> Yuko KURAMOCHI Masami HASEBE<sup>5</sup>*

*<sup>1</sup> Aichi Prefectural College of Nursing & Health <sup>2</sup> Saitama University <sup>3</sup> National Women's Education Center <sup>4</sup> Doctoral Program in Sociology, Sophia University <sup>5</sup> Graduate School of Education (Master's Program), Saitama University*

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**P-3 Community-Based Health Care for Menopausal Women: A Comparison of Needs in Rural Community and in Urban Community**

*Akiko SHIMA<sup>1</sup> Sumiko TAKANAMI<sup>1</sup> Mariko KAWAHARADA<sup>1</sup>*

*<sup>1</sup> Department of Health Science, School of Medicine, Hokkaido University*

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**P-4 The Relationship between the Narcissistic Personality Tendency and Perfectionism in Japanese University Students**

*Kumiko YAMAZAKI<sup>1</sup> Crystal LIN<sup>2</sup>*

*<sup>1</sup> Faculty of Human Sciences, Waseda University <sup>2</sup> Graduate School of Human Sciences, Waseda University*

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**P-5 A Study of the Factors Affecting the End-of-Life Care by Care Workers in Nursing Home**

*Eiko CHIKAMORI<sup>1</sup> Kyoko ISHII<sup>1</sup> Maki YOKO<sup>2</sup> Kazuko NOMURA<sup>3</sup>*

*<sup>1</sup> Osaka City University School of Nursing <sup>2</sup> Nihon Fukushi University <sup>3</sup> Junior College of Osaka University of Health and Sports*

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**P-6 The Characteristics of the Process to Acquire the Skill of Endotracheal Suctioning in Expert Nurses: Narrative of Clinical Engineers of Respiratory Therapy**

*Yumi YASUMORI<sup>1</sup> Akiko NAKAOKA<sup>2</sup> Yuko MAEDA<sup>2</sup>*

*<sup>1</sup> Hirosaki University <sup>2</sup> Osaka City University*

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**P-7 Association of Workload Perception with Acute Stress Reactions and Job Stressors**

*Mariko KAWAHARADA<sup>1</sup> Akiko SHIMA<sup>1</sup> Izumi UEDA<sup>1</sup>*

*<sup>1</sup> Hokkaido University*

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**P-8**      **Awareness of Nurse Students on “Relaxation and Touch”: Concerning “Touch Oneself”**

*Yumiko YAMASAKI<sup>1</sup>    Tsuyako SATO<sup>2</sup>*

*<sup>1</sup> Sonoda Women’s University    <sup>2</sup> Yamanashi University*

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**P-9**      **A Development of Safety Training Program for Staffs are Working in Ground Maintenance**

**Workshop Thai Airways International Public Company Limited**

*Sanpong BOONROD*

*Phranakhon Rajabhat University*

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**P-10**      **The Use of Environmental Education in the Prevention of Human Contamination**

*Adisak TEERAKAEW*

*Phranakhon Rajabhat University*

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**P-11**      **A Study on Growth of Ornamental Plants Using Compost**

*Anuchar SATHIDPONG*

*Phranakhon Rajabhat University*

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# ICHBS2006 PROGRAMME OVERVIEW

	Friday, 18 August	Saturday, 19 August	Sunday, 20 August
08:00	Participant Registration		
08:30	8:30 Set up displays of poster presentations		
09:00		Participant Registration	Participant Registration
09:30	9:30-10:00: Opening Ceremony		
10:00			
10:30	10:00-12:00:	10:00-12:00:	10:00-12:00:
11:00	Keynote Speeches I/II	Keynote Speeches III/IV	Satellite
11:30			Symposium A-2
12:00			10:00-12:00:
12:30	Lunch	Lunch	Satellite
13:00			Symposium B-2
13:30	13:30-15:30:		
14:00	Oral Presentation	13:30-16:00:	13:30-15:00:
14:30	- A-1	Symposium	Workshop A
15:00	- A-2	Education on Health and Environment	13:30-15:00:
15:30			Workshop B
16:00	Tea Break	Tea Break	Tea Break
16:30	16:30-17:30:		15:30-17:00:
17:00	Oral Presentation	16:30-18:30:	Workshop A
17:30		Satellite	15:30-17:00:
18:00	18:00-20:00:	16:30-18:30:	Workshop B
18:30	Welcome Party	Satellite	
19:00	@Thai Traditional House	Symposium A-1	
19:30		Symposium B-1	
			17:30-19:30:
			Closing Remarks & Farewell Party
			@Thai Traditional House



## **Keynote Speeches**

## New Paradigm, Integrative Medicine: Towards Future Health Care System

**Kazuhiko ATSUMI, MD. Ph. D.**  
**Professor Emeritus, Tokyo University**  
**President, Japanese Society for Integrative Medicine**

The Modern Western Medicine (MWM) has been contributing the human society to cure patients and to enhance QOL of human life and welfare.

The MWM has been developing based on science and studied through the concept of reductionism. Namely, a human body was divided into organs, tissues, cells, proteins and molecules etc.

However, human existence would be recognized as a whole system, not only as physical but also as mental, social and spiritual view points.

In this meaning, Integrative Medicine (IM) to integrate MWM and Complementary of Alternative Medicine (CAM) and Traditional Medicine (TM), has been rising as the new paradigm towards future health care systems.

These seeds on CAM / TM have already been planted in Asia; however, the new paradigm was recently switched on during last 15years in USA and distributed in the World.

The definition of CAM is wide and includes herbs and supplements, acupuncture, manual therapy and mind body medicine etc.

CAM / TM have been growing based on experiences and their evidence has not been verified scientifically.

The characteristics on IM are considered as follows;

- 1) Individual (Patient) oriented health care
- 2) Holistic health care including physical, mental, social and spiritual view points
- 3) Not only treatment on diseases, but also preventive medicine and health promotion
- 4) Comprehensive health care from birth to death.
- 5) Humanized health care considering how to live.
- 6) Team health care providing multiple professional modalities.

In order to complete IM, many problems should be solved such as education, research, health system, law, and socio-economical problems.

President, Japanese Association for Complementary, Alternative and Traditional Medicine (JACT)

President, Japanese Society for Integrative Medicine (JIM)

Emeritus Professor, University of Tokyo

ADDRESS (Home) 1-6-2 Mukogaoka, Bunkyo-ku, Tokyo, 113-0023 JAPAN

DATE AND PLACE OF BIRTH September 25, 1928, Osaka, Japan

### EDUCATION

1950-1954 University of Tokyo, School of Medicine

### TRAINING AND APPOINTMENT

1961-1963 Tokyo University Hospital, Instructor

1967-1989 Institute of Medical Electronics, Faculty of Medicine, University of Tokyo, Professor

1989-Present Emeritus Professor, University of Tokyo

1991-1994 Member, Science Council of Japan

1994-1997 Chairman of Medical Section of Science Council of Japan

1995-1998 President, Suzuka University of Medical Science

### LEADING POSITION

1983-1985 President of International Society for Laser Surgery and Medicine

1987-1989 President of International Society of Biomagnetism

1988-1990 President of International Society of Thermorogy

1991-1993 President of International Society for Artificial Organs

**Keeping Healthy: Traditional Medicine, Health and  
Well-being for Canadian First Nations**

**Nancy J. Turner  
Distinguished Professor  
School of Environmental Studies  
University of Victoria**

**ABSTRACT**

First Nations Peoples in Canada, as in many areas of the world, hold a holistic concept of health. Good health reflects, not just a lack of disease, but a total state of physical, emotional and psychological well-being. More than this, however, First Peoples extend their relationships not only to other humans, but to all of the earth's life and the places where it lives. This concept, termed "kin-centric ecology," inextricably links human health and well-being to the health and integrity of the environment and the other plants and animals of the earth. In traditional indigenous worldview, people have a responsibility to care for the environment and treat it with respect. If they neglect to do so, their own well-being is at risk. In fact, although this is not always recognized by society at large, humans' dependence on the health of the environment for our own health is absolute. Without the life-support system provided for us by the plants and animals around us, we could not survive, let alone enjoy strong and healthy lives.

There are many different First Nations in Canada; in British Columbia alone, there are over thirty distinct language groups. For thousands of years, these peoples have relied for their food on diverse combinations of plant and animal resources from their local regions. They have generally conserved and maintained – in some cases, enhanced – these resources so that they provided a healthy and well balanced diet. Over the past century or more, however, these traditional foods have declined in productivity and use. Along with this decline has been a loss of importance knowledge about how to harvest, process and maintain these foods. People have adopted new foods, often not as nutritious, to replace their traditional ones, and, combined with dramatic changes in lifestyles, in many cases they have experienced poor health as a result. Not only has the nutritional quality of peoples' food deteriorated, but the imposed cultural losses and impacts of industrial development and exploitation on environmental integrity have lead to poorer emotional and psychological health for First Peoples, with addictions to alcohol and drugs being widespread over the past century.

As well as dietary change, First Peoples have lost many of their traditions of healing, including restricted access to their traditional medicines and, again, loss of knowledge about the protocols and techniques for harvesting, preparing and administering these medicines. Western healthcare has not been able to remedy adequately the emotional and psychological trauma of cultural loss, low self-esteem and shame brought about by colonial attitudes, the residential school system and past legal prohibition of cultural practices.

First Peoples have witnessed and experienced environmental degradation in many forms, which has in turn impacted their own health in many ways. However, there is a movement among younger First Nations people in many communities to restore and renew their cultural traditions, including their traditional food and medicine practices. These individuals, supported by their elders, have gained renewed pride in their heritage and cultures, and this will certainly enhance their health and well-being. Furthermore, these people are reclaiming their rights to their traditional territories, and reassuming the responsibility of caring for their lands and resources. This trend will bring positive benefits to all.

## **Nancy J. Turner, PhD, FLS, OBC, FRSC**

SHORT BIOGRAPHY June 2006

Nancy Turner is an ethnobotanist and distinguished professor in the School of Environmental Studies at the University of Victoria. Her research area intersects the fields of botany and ecology with anthropology, geography and linguistics, among others. She is interested in the traditional knowledge systems and traditional land and resource management systems of indigenous peoples, particularly in western Canada. This includes knowledge of traditional foods, medicines, and materials, as well as the role of plants and animals in narratives, ceremonies, language and belief systems. She has authored or co-authored over 20 books (most recently, *Plants of Haida Gwaii*, *The Earth's Blanket*, and *“Keeping it Living”* – the last co-edited with Douglas Deur), over 20 book chapters, and many other publications in the area of ethnobotany, traditional ecological knowledge and sustainable resource use in Canada and British Columbia. She is a Fellow of the Royal Society of Canada, and a recipient of a number of awards, including the *Order of British Columbia*, Slow Food International's award for Biodiversity Conservation, the Confederation of University Faculty Associations of British Columbia *Academic of the Year Award*, the Canadian Botanical Association's *Lawson Medal* for lifetime contributions to Canadian Botany, and the University of Victoria's top prize for research achievement – the *Craigdarroch Gold Medal*.



## Dependence and Autonomy in Integrative Health: Schema for Behavior Change

Prof. Dr. Tsunetsugu MUNAKATA

Chairperson

the 5<sup>th</sup> International Conference of Health Behavioral Science

Drugs, nutrition and physical exercises are utilized in contemporary medical treatments to cope with life-style related diseases, the major diseases in the modern society, such as cancer and diabetes. However, these treatments are not radical, just symptomatic. They bring little effect on either prevention or treatment. This is because the treatment process which health practitioners viewed through the biomedical framework has not been integrated with the one which patients viewed through the *lived world*.

In the modern world where social life itself is pretty much competitive, people recognize each other as hostile because people judge others after putting them into the category of either the side or the superiority. It is hard to expect support from the other people around them if they, without viewing the encounter with them as a good fate and a pleasure, fail to recognize them as supportive. In the *lived world* of the people who suffer from life-style diseases, it is not easy to ask for help. The patients, with such idiosyncratic behaviors as self-control, difficulty to recognize own feelings, avoidance of own problems and self-compassion, put out their stresses to physical conditions and behaviors. Thus, those who suffer from life-style diseases cannot autonomously control their behaviors in daily life including physical exercises, ingestion of nutrition, stress, smoking and drinking.

We can recognize our milieu by way of memory. Without memory, we can do nothing but be thrown into confusion just like patients of dementia. When the memory of the emotion caused by the aversion system in the brain is recalled, stress is aroused. When the memory of the emotion caused by the reward system in the brain is recalled, well-being is aroused. For the behavior change the conversion of the meaning is required; to change the memory recall of the emotion in the aversion system to that of the emotion in the reward system. The memory recall of the emotion in the aversion system promotes the cognition of the stress caused by the sense of difficulty of self-control. Such stress is overlapped with the past memory of the emotion in the aversion system. In order to make the patient convert the past memory recall from one in the aversion system to that in the reward system, whichever era that past might be, the following procedures seem to be appropriate:

(i) The patient is required to make the point of time of the lived memory in the aversion system further retroact and to envision the image of the era when he/she was protected by others around and was able to avoid the episodes to be memorized in the aversion system. (ii) The patient needs to establish the self-image to do anything unaided with a retroactive imagery method, and also needs to avoid the sense of fear caused by the memory recall. (iii) Then, the patient is unconditionally healed of the memory in the aversion system. (iv) Lastly, once the patient has established the self-image to get over the past memory in the aversion system by his/her own efforts, the image of the memory in the aversion system is replaced with that of the memory in the reward system. Accordingly, the patient can restore the sense of self-control, and as a matter of course the means to overcome the current actual problems comes in sight. Thus, the conversion of the meaning of the milieu where the patient is leading his/her *lived life* should be the key to the prevention against and the treatment for life-style diseases.

### **Munakata TSUNETSUGU, Dr H Sc (Tokyo University)**

Professor and Chairperson (1998-) of Health Counseling and Behavioral Health Science, School of Comprehensive Human Sciences University of Tsukuba; Executive Member (2002-), International Sociological Association; President, Japan Academy for Health Behavioral Science, President, Academy for Health Counseling; School Adviser & Adviser for School Counselor (2001-), 1989-2000, Consulting Editor, Culture, Medicine and Psychiatry; Chiba Prefecture; 1994-1996 Member of Council of Overseas Cooperation on AIDS, Ministry of Health and Welfare, Japan; 1989-1991 Consultant, Global Program on AIDS, World Health Organization; 1992-1993 Consultant, Division of Substance Abuse, World Health Organization; 1989 Visiting Fellow, Department of Social Medicine, Harvard Medical School, 1986-89; Division Director, National Institute of Mental Health, National Center for Neurology and Psychiatry, Chiba, Japan; 1986 Visiting Professor, Department of Sociology, Madurai Kamaraj University, India; 1985-1998 Lecturer Department of Health Sociology, Faculty of Medicine, University of Tokyo, Japan; 1985 Professional Associate, Institute of Culture & Communication, East West Center, Honolulu,; 1981-82 Visiting Research Sociologist, Department of Psychiatry, School of Medicine, University of California, Los Angeles

- Jessica P. Campano, Tsunetsugu Munakata: Anger and Aggression among Filipino Students. *Adolescence* 39 (156);, 2004.
- Munakata T: SAT Imagery Therapy for Families with Shu-in Kids. *Japanese Society of Psychosomatic Medicine* 42;., 2003.
- Anesaki M. and Munakata T: Health, illness, and health policy in Japan. *The Blackwell Companion To Medical Sociology*, Cockerham W. C. (ed.), Blackwell, Oxford, 2001.
- Munakata, T: Social Health and Problems-HIV/AIDS, *International Journal of Japanese Sociology* (6), 1997.
- Munakata, T and Tajima K: Japanese risk behaviors and their HIV/AIDS preventive behaviors, *AIDS Education and Prevention* 8(2);, 1996
- Mary-Jo D V Good, T.Munakata, Y. Kobayashi, C. Mattingly and B.J. Good: *Oncology and Narrative Time*, Soc, Sci. Med. 38(6), 1994.
- Munakata, T: *AIDS in Japan*, Akashi Shoten, Tokyo, 1994.
- Good M., Hunt L., Munakata T., Kobayashi Y.: *A Comparative Analysis of the Culture of Biomedicine: Disclosure and Consequences for Treatment in The Practice of Oncology*. Conrad P. and Gallagher E.(eds.): *Medicine across Societies*, Temple University Press, Philadelphia, 1993.

**Perspective of Ethical Education Focusing on  
Integrative Medicine and Comprehensive Environmental Education**

**Fumiaki TANIGUCHI**

**Director**

**General Institute for the Environment,  
Konan University, JAPAN**

**I. Introduction**

- (1) Life and Environment have the same root
  - Life and Environment are the face and the back of the same coin.
- (2) From 'Sense of Wonder' to 'Ethical Education' regarding Life and Environment
  - 1) Sense of Wonder (R. Carson): ground of human recognition and norm
  - 2) Fundamental principle of environmental ethics: Axioms of identity
    - Identity of ecological system, Individual, genes and molecule/atom to preserve sustainable life and environment
  - 3) Bioethics and environmental ethics: Ethical education for medicine and environment

**II. Relationship between Life and Environment**

- (1) Haeckel's word:
  - Life repeats 4 billion-year life histories in its womb before born.
- (2) All lives on the earth: connected with each other by ecological systems at many scales
  - Relating to time (life) and space (environment)
- (3) Comprehensive and integrative education: holistic and systematic viewpoint
  - An interdisciplinary and systematized method is required.

**III. Ethical Education for Integrative Medicine**

- (1) Is it true that wholeness consists of parts? :
  - Aristotle, "Wholeness can not be composed of the total of each of its parts by the reductionism"
- (2) Regarding life:
  - Life is supported by one whole system
- (3) As far as medicine is concerned,
  - 1) We need to know the other face of the coin, or the back of the coin:
    - beyond dualism of mind and body
  - 2) Ethical education for integrative medicine: beyond dualism of Eastern and Western medicine

**IV. Ethical Education for Comprehensive Environmental Education**

- (1) Comprehensive environmental education: various subjects such as science,
  - social studies, languages, mathematics, etc.
  - also various fields such as school education, social education and life-long education
- (2) Regarding the environment:
  - Environment is one ecological system, or Only One Earth.
- (3) As far as the environment is concerned,
  - 1) From a complex "comprehensive" method to a systematized "integrative" one:
    - pedagogy of environmental education
  - 2) Environmental ethics to show a direction to sustainable future: solution of environmental problems

**V. Case Studies of Comprehensive Environmental Education and Integrative Medicine:**

- 1) Natural environment: Alternative eco-forestry in Canada = healthy nature
  - 2) Social environment: Minamata disease in Japan = healthy human society
  - 3) Environment of the mind: Sand play Therapy = healthy heart/healthy emotions
- These are all related to integrative medicine.

## VI. Perspective of Ethical Education:

Common guidelines for creating a healthy and sound life/environment

- (1) Regarding life and environment: Integrative approach from a holistic viewpoint of holism a systems theory
- (2) Integrative guideline:
  - The contents integrated life and environment should be within the soft normative framework as guidelines
- (3) Expanding approaches of a network for medicine and environment
  - e-Learning:
    - cf.) Satellite Symposium B-II *How to Introduce Environmental Education in National Government Parks: Demonstration of Environmental Education Using On-line TV-net Meeting System between Japan and Thailand*
  - Regular International Conference regarding life and environment

### Educational Background

BA Economics, 1969, Konan University, Japan

MA Philosophy & Ethics, 1977, Osaka University, Japan

### Professional Career (Including Position)

1993-present Trustee, Japan Academy for Health Behavioral Science

1995-present Philosophy Professor, Konan University

Trustee, Japan Academy for Health Behavioral Science

1996-present Director, International Exchange Committee, Japan Academy of Health Behavioral Science

1997-present Honorary Visiting Professor, The School of Education, HEBEI University, China

1998-present President, Association of Earth-Environment and Global Citizen

1998-present Director, Kansai Branch, The Japan Society of Environmental Education

2000-2005 Secretary-General, The Japan Society of Environmental Education

2000-present Honorary Visiting Professor, Center of Environmental Science, Peking University, China

2004-present Director, The Environmental Education Committee of Environmental Council of Hyogo Prefecture

2005-present Director, General Institute for the Environment, Konan University

Director, Graduate Course, Department of Human Sciences, Konan University

Chair, APN CAPaBLE Project of the Asia-Pacific Network for Global Change Research

### Main Works

- *Self-forming Structure of Nature & Man, and Human Recognition of Environment: Inquiring into the foundation of environmental ethics and environmental education*, The Journal of Konan University 110, 1999.

- *Environmental Education in the 21<sup>st</sup> Century and Present Tasks of Japanese Environmental Education*, The Journal of Environmental Education: Special Issue, Japan Society of Environmental Education, 2003.

- *Original Experience in Nature and Environmental Ethics for Environmental Awareness in Environmental Education: Regarding Brilliance of Life in Childhood*, The Journal of Konan University 54, 2003.

- *Environmental Ethics in Environmental Education according to Three Categories of Environmental Ethics such as Nature, Society and Mind*, The Journal of Konan University 142, 2006.

He is also actively involved as environmental consultant for central governments such as the Ministry of Environment, the Ministry of Land, Infrastructure and Transport, and for local governments such as Osaka and Hyogo Prefectures.

**Field** Environmental ethics; bioethics; environmental education

# Symposium

# PROFILE

## Coordinator

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### **Kazuhiko FUJISAKI, MD**

Medical Education Development Center, Gifu University

Yanagido 1-1, Gifu 501-1194, Japan

Tel:+81-58-230-6470 Fax:+81-58-230-6467 E-mail:kfuji@cc.gifu-u.ac.jp

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### **Educational Background**

1979-1985 Hokkaido University, School of Medicine

1985-1989 Osaka University, School of Medicine, Doctor Course

### **Professional Career (Including Position)**

1989-2001 Research Associate, Nara Medical University, School of Medicine, Department of Hygiene

2001-2005 Assistant Professor, Gifu University, Medical Education Development Center

2005-present Professor, Gifu University, Medical Education Development Center

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### **Laddawan KANHASUWAN**

Environmental Education Center specialists, Phranakhon Rajabhat University

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Laddawan KANHASUWAN is an environmental education specialist of Thailand who got M.S. (Science Ed) from Indiana University, U. S. A. She is a resource person who concerns about environment. Since 1987, she had been the director of Environmental Education Center, Rajabhat Institute Phranakhon, until her retirement in September, 1996. She also published many books about environmental education such as Development of Environmental Education, Environmental Education Management, Science Camps and Open Environment World etc. At present, she is a consultant of the Institute of the Promotion of Teaching Science and Technology, IPST, Wildlife Fund Thailand, WFT and Environmental Education Center specialists, Phranakhon Rajabhat University.

## **Medicine of Environment and Bioethics**

**Shokichi TANI**  
**Director Emeritus**  
**Komatsu Hospital, JAPAN**

I am very glad to be here as a panelist by invitation of this international conference regarding Integrative Medicine and Comprehensive Environmental Education.

I would like to present the integrated problems relating medical ethical situation and the short extract of the main theme of the conference. But, the greatest subject of the recent most important environmental problems is a viral infectious disease including, for example, AIDS and SARS and so on.

Secondary problems concerning medical integration is the environmental pollution affecting human bodies due to micro chemical molecule toxic substances such as dioxin and others.

This carcinogenicity and the environmental carcinogen are important risk factors for pulmonary cancer.

I am now practicing hospice medical care for terminal cancer patients as a hospice clinical doctor.

In Japan, recently, terminally ill patient with lung cancer caused by asbestosis, which become problems of environmental pollution, is increasing as serious social problems.

The modern hospice movement was developed by Cicely Saunders, who was creating new models of care for terminally ill patients with cancer.

Through my experiments on the hospice clinical practice, I would like to suggest that environmental education contains very important subjects, including medical ethic problems regarding life prolonging treatment for terminally ill patients with cancer and death education.

Conclusively, I appreciate this international conference is available for prevention upon world wide global environmental solution.

### **Educational Background**

1931	Birth in the Kanagawa Prefecture
1957	BA, Medical School of Yokohama University, Japan
1958	Get through the Medical License
1962	Completion of the Graduate School of Medicine, the University of Tokyo (Ph. D)

### **Professional Career (Including Position)**

1981	Assistant Professor of the University of Tokyo
1981	Professor of the Kanazawa Medical University
1991	Hospice Clinical Doctor of the Ageo Kousei Hospital
1994	Hospice Clinical Doctor of the Yokohama Kousei Hospital
1995	Director, Komatsu Hospital
1998	Part-time lecturer, Konan University
2005-present	Director Emeritus, Komatsu Hospital.

## **School Crisis Intervention in Japan**

**Naoyasu MOTOMURA**

**National Mental Support Centre for School Crisis**

**Osaka University of Education, Japan**

### **Summary**

A school crisis can take the form of many situations; natural disaster, traffic accidents or crime etc. Out of these, crime in school is one of the problems manifesting in Japan. Actually, more than 40,000 crimes have occurred in schools in 2001, which is twice as many as that in 1995. In this one decade we have experienced serious school crisis due to intruders out of schools. In such incidents where not a few were killed and many students in school witnessed the scene, psychological care or crisis intervention is critical. This presentation describes the development of school crisis intervention activities. The need for working with a wide range of traumatic experiences in the lives of young people is obvious. Relevant evidence based programs are described. The school is the area where children and youth spend most of their time. Students can be helped there, if teachers and mental health professionals work together. Each school needs to develop a plan of action before a crisis or trauma happens. School-based mental health teams need continuous education and support from external trauma and crisis experts. A group of experts can function as coordinators for a district or a region. Such external regional teams can also assist a local team, when major traumas occur. In this presentation I should like to show the organization and activities of the school crisis intervention in Japan.

### **Educational Background**

1986 PhD, Graduate School of Osaka Medical College

1980 MD, Osaka Medical College

### **Professional Career (Including Position)**

2003-present Professor, National Mental Support Center for School Crisis, Osaka Kyoiku University

2000 Visiting Professor in Department of Social Medicine, Harvard University, USA

1997-2003 Professor, Mental Health Division, Department of Health Science, Osaka Kyoiku University

1991-1996 Associate Professor, Mental Health Division, Department of Health Science, Osaka Kyoiku University

1990-1991 Visiting lecturer in department of Neuropsychiatry, Aachen Technischen Hochschule, Germany

1990-1991 Lecturer in Department of Neuropsychiatry, Osaka Medical College

1986-1990 Assistant Professor, Department of Neuropsychiatry, Osaka Medical College

1980-1982 Residency in Department of Neuropsychiatry, Osaka Medical College



**Reconnecting Youth to Traditional Knowledge for Health and Well-being:  
Examples from British Columbia**

**Nancy J. Turner  
Distinguished Professor  
School of Environmental Studies  
University of Victoria**

One of the main problems in perpetuating traditional knowledge systems - including knowledge about health and nutrition - is the separation of young people and older people in modern society. Formerly, when indigenous peoples were engaged in traditional lifestyles of food production within their traditional territories, entire families would be together for long periods of time. Children and youth participated fully in all aspects of food harvesting and preparation, and during this time, they learned easily and naturally from their parents, grandparents and other older community members about traditional medicines, healthy lifestyles, and other important information for survival and well-being. Elders of present day First Nations communities in British Columbia, Canada, remember spending long periods of time with their grandparents, out on the land and water, and also, at night, listening to their stories and teachings before bedtime. This critically important ties between youth and elders have been, in many cases, disconnected, as children are required to attend schools and participate in formal education for most of the year, and as adults are engaged in indoor activities and wage jobs. Modern technologies, including television and computers, have also detracted from the close connection across generations that existed in the past. Now, as one Gwich'in woman put it, "The core of our traditional teachings and learning is severed. . . . The family is not together any more; the parents or grandparents are sitting in their living room watching television and the children or grandchildren are playing Nintendo or other video games in their own rooms."

Today, it is necessary to find other ways to reconnect indigenous children and youth to their cultural traditions and their elders' teachings, particularly in relation to health and nutrition. I will present three case examples of how this reconnection can occur, and how we can use current technologies and the formal education curricula to help preserve this important knowledge for healthy living. The first example is the Nuxalk Food and Nutrition Program, which was first initiated in the early 1980s, to document the traditional food of the Nuxalk people of the central coast of British Columbia, and to educate the youth and young adults about the value of traditional food and good nutrition as part of a healthy lifestyle. This project is being revisited in 2006-7 as part of the Global Health and Nutrition Project, overseen at McGill University. The second is the Gitga'at Plant Project, with the Tsimshian community of Hartley Bay on the north coast of British Columbia. In this project students undertook research on plants as part of their school curriculum. As part of this work, they interviewed elders about the environmental and cultural values of plants. The students wrote reports about their plants, and these were published in a book, together with more detailed knowledge of a wide range of culturally important plants. The response from the entire community was extremely positive. The third initiative is the Ahousaht Garden Project, just beginning as a project of graduate student Jen Pukonen at the University of Victoria, in which youth in the Nuuchahnulth community of Ahousaht on the west coast of Vancouver Island participate in a project of recreating a traditional wild root garden in their village, giving them the opportunity to learn about their traditional foods and how they were maintained and conserved by their ancestors, as well as learning about gardening and good nutrition. Each of these projects provides lessons and models that can be applied in other situations, both in British Columbia and elsewhere. It is only through such projects applied at a range of scales with active participation by community members of all ages that this important knowledge can be restored and renewed, to the benefit of future generations.

## **Comprehensive Environmental Education Focusing on Sustainable Agriculture and Traditional Culture**

**Siriwat SOONDAROTOK<sup>1</sup> Chinatat NAGASHINHA<sup>2</sup>**

**1 Director 2 Vice-director**

**Environmental Education Center**

**Phranakhon Rajabhat University, THAILAND**

Agriculture is the most important occupation in Thailand. More than 80 percent of Thai people are connected to agriculture or industries on agricultural products. Thailand was reported to be the biggest rice, Para rubber and black tiger prawn exporter in the world. Total agricultural products of Thailand were enough to feed 250 millions people which were 4 times of Thai population.

There were evidences for agriculture in the northeast of Thailand for more than 5000 years ago. Agriculture had been developed along with Thai history. The most important crop is rice which is the staple food of Thai people. Thailand exported rice from the kingdom since Ayudhya period (400 years ago). In 1995, rice production in Thailand was more than 22 million tons. The area for growing rice expected to be more than half of agricultural area in the country. After world war two Thailand started to increase more kinds of plant for export such as Para rubber, corn and cassava. Para rubber was introduced to Thailand in 1901 and became one of the most important export products. Livestock production in Thailand also changed dramatically in the last 30 years. From backyard farming in the late 50s became agro-industries in the present time especially chicken and pig production. Thailand is the biggest exporter for chicken to Japan.

Thai farmers started black tiger prawn farming about twenty years ago and became the biggest exporter in the world.

The increase of agricultural practice in Thailand happened due to the changed from self sufficient to business farming. Instead of growing rice for family consumption and sell the surplus, the farmer now sell all the products to the market and to overseas market after that. The increasing had a big impact to Thai environment. Farm land was not enough for the farmers due to the increase of population. Farmers needed more land for production and started deforestation. Forest area of Thailand decreased from 34 percent down to 25 percent in 2006. Deforestation caused the lost of species of plants and animals and also the ability to catch up water of the soil. Mud slide happened at least twice in the last decade due to the lack of forest to hold the water. Not only the lost of forest itself but deforestation also caused of the drought in Thailand. There is no water shed area to hold storm water and let all the water ran to rivers and ocean. In the summer time there is not enough water in the reservoir for farming and farmers have to depend on rainfall which is uncertain.

Agriculture practices also affected environment. The green revolution in Thailand after WWII increased the use of chemical fertilizers, insecticides and chemicals for weed and pest control. Lots of farmers were lack of knowledge and misused of these chemicals. The over used of chemicals caused the pollution of water with dangerous chemicals. A research reported that in the north where farmers grow oranges and used a lot of chemical people who lived in the area were sick due to those chemical. Plants and vegetables were also polluted with chemicals and not safe for the consumers. The government now has a regulation to spot check on agriculture products in the market to solve the problem. In the middle part of Thailand farmers started shrimp farming not only fresh water shrimp but also salt water shrimp. The use of salt water for farming affected another farmer who grew rice in the area because salt damage another crops.

One of the most important problems in agriculture is that most of the farmers who are more than 60 % of population are poor. Most of the farmers are small farmer with a small piece of land. They do not have high education, normally from 4-6 years in primary school. This is the most difficult problem for government to solve. The government is working on strategies to help farmers. The first thing to do is trying to increase the productivity both quantity and quality. The government is supporting researches and development and also appropriate technology to help the farmers. Secondly, they try to change from produce low value products to value added products. The quality has to be improved and focused on post-harvest technology. Thirdly, the standard of production has to be improved. Food safety had been an issue to be interested in the last 2 years. Fourthly, the farmers' standard of living has to be improved. The government is trying to find farmland for farmers and help them to get enough income. Lastly, the government sectors involved must increase the efficiency and be able to work for the farmers effectively. These strategies had started for few years already but it is still too early to see the results.

Not only the government but also the king is trying to help Thai farmers. His Majesty the king announced the new theory of farming for Thai farmers to follow. In this theory, water is the most important thing and there must be a reservoir in every farm. Farmer have to do integrated farming not depend on only one crop. Livestock also take part in the farm for protein supplement and recycle the agriculture products. The first few year farmers should be self sufficient and be able to sell the surplus products later. Lots of farmers follow the new theory and succeed with better standard of living.

In conclusion, agriculture is one of the most important things in Thailand. Thailand is one of the biggest exporter agriculture products but farmers are still poor. The agricultural practices also caused problems due to the lack of knowledge. Many environmental problems in Thailand were caused by wrong practices in agriculture. The government is trying to solve the problems and export Thai agricultural products to the world. His Majesty the king used his new theory of farming to help Thai farmers to increase their standard of living.

## **Siriwat SOONDAROTOK**

### **Educational Background**

BA Science, 1975, Kasetsart University

MA Science, 1981, Kasetsart University

Certificate in media development San Hose University USA

Environmental Education from University of Strathclyde in Glasgow Scotland

### **Professional Career (Including Position)**

1979-1980 Training in agriculture from Oregon State University USA

1971-1981 Lecturer at Nakhonsawan Teachers College

1982 Study tour in environmental education at New South Wales Australia

1983 Study Tour in environmental education in Japan

1982-1986 Deputy head of department of agriculture at Nakhonsawan Teachers College

1989-present Lecturer in department of agriculture at Phranakhon Rajabhat University

2002-present Head of Environmental Education Center, Phranakhon Rajabhat University

### **Field**

Environmental education; agriculture

## Traditional Knowledge and Intellectual Property Rights: Problems, Prospects and Issues

**Manoj L. SHRESTHA**

**Professor**

**Konan University**

In this presentation the speaker will attempt to focus on traditional knowledge from the perspective of Conventional on Biological Diversity (CBD). The convention emphasizes every country's sovereign right to exploit their own biological resources pursuant to their environmental policies, as well as responsibility to conserve their biodiversity and use their biological resources in a sustainable fashion. It also ensures that every country should make sure activities within their jurisdiction or control to do not cause damage to the biodiversity of other states or of areas beyond the limits of national jurisdiction.

The speaker will highlight the following points:

(1) CBD and Protection of Biological Resources

(2) Sovereign Rights of States over their Natural Resources

(3) Traditional Knowledge of Indigenous Community and contemporary intellectual property related issues.

Manoj L. Shrestha completed his MA in International Economics from Kyoto University, Kyoto Japan in 1985 and subsequently entered a doctoral course. After completion of this in 1988, he worked as a visiting researcher at Osaka Prefecture Institute for Industrial Development as a visiting researcher. In the meantime he was also a visiting scholar at International Center for Japanese Studies doing his research on Japanese investment and technology transfer in Asia. He started teaching strategic management and policy studies as an assistant professor at Konan University, School of Management in 1992.

In 1996 professor Shrestha published a book, *Multinationalization of Firms and Technology Transfer*, focusing on strategic alliance and intellectual property management. This book won a Japan Omni management Award in 1997. Professor Shrestha got his PhD from Japan Graduate University of Advanced Studies (*NICHIBUNKEN*), Kyoto in 1997. He was a Visiting Senior Fellow at the University of Pennsylvania and visiting scholar at MIT during 1998-99. His research recently focuses on international business and technology transfer, innovation management, intellectual property studies, natural product development and conservation management. He was a visiting scholar at University of Tokyo, Research Center for Advanced Science and Technology (RCAST).

From September 2006 to August 2007 he is going to affiliate with Stanford University US Asia Technology Management as a visiting professor. He recently published papers on Convention on Biological Resources (CBD) and Access Benefit Sharing (ABS) and Costa Rica's INBio and Merck's case studies jointly with professor Sarath Kotagama from Colombo University and Professor Mika Yamana from Osaka Institute of Technology respectively, both published in Konan Business Review.

# **Satellite Symposium I**

**Forum A-1**

**Practical Study on Behavioral Modification**

*Coordinator*

**Prof. Dr. Tsunetsugu MUNAKATA**

**Prof. Ben YANAI**

**Forum B-1**

**Common Materials for Environmental Education in the Asia-Pacific Region:**

**Establishing International Guidelines for Environmental Education (II)**

*Coordinator*

**Prof. Azizan BAHARUDDIN**

**Prof. Fumiaki TANIGUCHI**

## **BEHAVIORAL MODIFICATION IN CHRONIC ILLNESS PATIENTS**

**Michiyo OKA, RN, Ph.D**

**Gunma University**

**3-39-15 Showa-machi, Maebashi, Gunma, 371-8514, Japan**

In order to induce a chronic-disease patient's behavioral change successfully, it is necessary to consider various elements. The Chronic Care Model provides us with a clue for considering such elements.

The Chronic Care Model was developed by researchers from the MacColl Institute for Healthcare Innovation in Seattle, USA. This model provides an organizational approach to caring for people with chronic disease in a primary care setting. The model can be applied to a variety of chronic illnesses, health care settings and target populations.

The Chronic Care Model identifies the essential elements of a health care system that encourage high-quality chronic disease care. These elements are the community, the health system, self-management support, delivery system design, decision support and clinical information systems. The elements of good chronic illness care require productive clinical interactions between informed activated patients and prepared proactive practice teams. Support from the health system and the community is necessary to facilitate the productive interaction between patients and providers. The key elements required from them include: 1. Community Resources and Policies : Health system must take advantage of community-based programs that enhance chronic illness care. 2. Health Care Organization: Better care means not only identifying best practice, but creating policies and organizations that allow such practices to flourish.

Specific elements within health care organizations for proper chronic illness care include: 3. Self-management Support: Successful self-management programs rely on a collaborative process between patients and providers. 4. Delivery System Design: Effective chronic illness management requires more than simply adding interventions to an existing system focused on acute care. Basic changes in delivery system design are required for effective care management. 5. Decision Support: Practice teams require evidence-based protocols to guide their decisions about patient care. 6. Clinical Information Systems: Effective information system can measure the success of treatments across populations and deliver reminders about care for individuals.

Some organizations have adapted materials from the MacColl Institute ICIC Chronic Care Model to create simplified checklists for the core elements of the Chronic Care Model. At this symposium I am also going to introduce the participants to the checklists aiming at examining the possibility of their practical use.

## References

- The Improving Chronic Illness Care website.* (n.d.). Retrieved May 28, 2006, from <http://www.improvingchroniccare.org>
- Wagner, E.H. (1998). Chronic disease management:: What will it take to improve care for chronic illness? *Effective Clinical Practice*, 1, 2-4.
- National Diabetics Education Program(n.d.). *Determining Needs and Setting Priorities for Systems Change* Retrieved May 28, 2006, from <http://www.betterdiabetescare.nih.gov/NEEDSchroniccaremodel.htm>

### **Professor Michiyo OKA, RN, Ph.D**

School of Health Science, Faculty of Medicine, Gunma University,  
E-mail: [michiyo@health.gunma-u.ac.jp](mailto:michiyo@health.gunma-u.ac.jp)

#### **EDUCATION**

#### **PROFESSIONAL QUALIFICATIONS:**

1995 -1999 University of Tsukuba, Tsukuba, Japan, Graduate School of Medicine (Doctoral Course),  
1993 -1995 University of Tsukuba, Tsukuba, Japan, Health Education Course, Master of Science  
1988 -1992 Meiji University, Tokyo, Japan, Bachelor of Art,  
1982 -1985 Juntendo School of Nursing, Tokyo, Japan

#### **EMPLOYMENT HISTORY:**

2006- present Professor, School of Health Science, Faculty of Medicine, Gunma University,  
2003-2006 Associate professor, Kitasato University School of Nursing, Japan  
1999-2003 Associate professor, Clinical Division, Nursing Department, School of Medicine, Yamagata University, Japan  
1998-present Adjunct lecture, School of Nursing and Midwifely, Griffith University, Australia  
1985 – 1992 Registered Nurse, The Toranomon Hospital Hemodialysis Section, Japan

**CURRENT RESEARCH PROFILE:** Dialysis nursing/Chronic illness nursing/Patient education/Nursing intervention applied with behavioral therapy/Theory and technique for behavioral modification

## Internet Based Remote Counseling to Support Physical Exercise Behavior in Elderly People

Sayuri HASHIMOTO<sup>1,2</sup>

1 University of Tsukuba

1-1-1 Tennoudai Tsukuba Ibaraki, 305-8577, JAPAN

2 NICT Tsukuba JGN2 Research Center

2-5-5 Azuma Tsukuba Ibaraki, 305-0031, JAPAN

In the modern information society, networks are getting faster, costs are getting lower, and displays are getting clearer. Today, just about anyone can easily use precise, dynamic, image distribution systems in their everyday life. Therefore, it is essential to develop different applications that are capable of efficiently using the network environment for receiving and transmitting various services from the home. It is especially important to support families with elderly people, people in need of care, and babies and infants by using this network. As a result, people that are unable to go out of their homes will be capable of utilizing a variety of services from the home. As a case in point, it might be useful to teach stress management techniques to elderly people at home to prevent withdrawal and dementia using an Internet (IT) based counseling system.

In this study, the feasibility of a remotely conducted, preventive-counseling system for regularly exercising, healthy elderly people, designed to prevent their exercise program from being interrupted was examined. Moreover, the necessity for preventing interruption of exercise by the elderly is discussed.

Evidence that physical exercises contribute to reducing perceived stress, to enhancing satisfaction with life and mental and physical health in elderly people has been reported. Results of studies conducted in our laboratory, similar to those quoted above, have also demonstrate that exercise does have positive mental and psychological effects. In one study that analyzed the exercise behavior of middle-aged and elderly people, we demonstrated that strong stress contributed to terminating exercise (Hashimoto et al. 1996, 1998a, 1998b). Moreover, in a two-year longitudinal study, we established that exercise contributed to decreasing life stress. However, strong stress interrupted the exercise program, making it more difficult to use exercise as a stress-management technique (Suh, Hashimoto, Okutomi and Munakata 2000, Munakata et al. 2000). Seemingly, there is a virtuous cycle in which exercise lessens life stress and improves life satisfaction and mental health of elderly people who exercise. There is also a vicious cycle: strong life stress interrupts exercise and makes stress reduction more difficult, resulting in a cycle in which life satisfaction and mental health declines.

Our research showed that a high degree of life-stress has a negative mental health effect that may interrupt regular exercise. We used an internet based, remotely conducted, face to face, preventive counseling program using video monitors to reduce the source of life-stresses that interrupts regular exercise and evaluated the preventative effects of the program in elderly people.

NTSC Video signals were converted to the IP protocol and facial images were transmitted to a PC display using the exclusive optical network lines of JGN2. Participants were 22 elderly people in Hokkaido, Japan, who regularly played table tennis. A survey was conducted before the intervention in August 2003. IT remote counseling was conducted on two occasions for one hour on each occasion. A post intervention



survey was conducted in February 2004 and a follow-up survey was conducted in March 2005.

Network quality was satisfactory with little data loss and high display quality.

Results indicated that self-esteem increased significantly, trait anxiety decreased significantly, cognition of emotional support by people other than family members had a tendency to increase, and source of stress had a tendency to decrease after the intervention. Follow-up results indicated that cognition of emotional support by family increased significantly, and interpersonal dependency decreased significantly compared to before the intervention.

These results suggest that face to face IT remote counseling using video monitors is useful to keep elderly people from feeling anxious and to make them confident to continue exercising regularly. Moreover, it has a stress management effect.

## **Sayuri HASHIMOTO, PhD**

### **Present Positions:**

2001-present Associate Professor of Health Counseling Graduate School of Comprehensive Human Sciences, University of Tsukuba

### **Major Area of Specialty:**

Health Counseling/Mental Health Sciences

Address (office):

University of Tsukuba, Advanced Research Building D510, Tsukuba City, JAPAN 305-8577

TEL 81-29-853-3964 FAX 81-29-853-3964

### **Membership in Learned Societies:**

The Academy for Health Counseling, Japan

The Japan Academy of Health Behavioral Science

The Society of Physical Education, Health and Sports Science

Japanese Society of Psychosomatic Medicine

### **Main Works:**

- Sayuri Hashimoto, Tsunetsugu Munakata, Nobuyuki Hashimoto, Jyunzo Okunaka and Tatsuzo Koga: Internet Based Remote Counseling to Support Stress Management: Preventing Interruptions to Regular Exercise in Elderly People, Proceedings Electronic Imaging, Internet Imaging VII, SPIE Vol. 6061: 60610T-1-60610T-12, 2006.

- Sayuri Hashimoto and Tsunetsugu Munakata: Educational Effectiveness of Structured Association Technique Health Counseling Seminar: The 11th Report, Journal of Health Counseling, 11:63-73, 2005.

- Tsunetsugu Munakata, Mariko Komori and Sayuri Hashimoto: "Health counseling text Vol.1, Vol. 2" Health Counseling Center International. 1-201, 1-233, 2000.

## The Modification of Health-Related Quality of Life in Hospitals by Using Narrative Analysis

**Mitsuki NIREGI, Ph.D.**  
**Rissho University, Japan**

These case studies on elderly patients who had a diagnosis of acutely confusional state were investigated by the coherence structure of the narrative analysis. Most of elderly patients could not understand what happened to them and why they stayed in hospital. One day, suddenly, an awful pain took them in their body, and the pain caused them to become patients in a hospital. It is natural that the patients felt a wide cleavage between the inpatient life and daily life in home.

It is said that medical staffs need to share life stories of patients. If the patients' stories were listened to the medical staffs using narrative based medicine, they could find the gap between the inpatient life in hospital and daily life in home. Narrative analysis is a method of listening to the patients' story from the point of view at coherence of narrative structure.

Mr. A, 78 year-old male patient, had several huge behavioral problems in the hospital. He fell down from a stepladder in his garden and broke his leg. He wanted to go back home immediately, fell into a state of dimmed consciousness, and looked for an opportunity of escape from the sick ward. A therapist asked him a reason why he needed to go back home, and he said that he was worried about twelve potted plants of invaluable azalea. He needed to prune the small trees in this rainy season. The therapist arranged for his wife to carry one plant to the bedside everyday, then he finished pruning the twelve plants and came back to his senses.

Ms. B, 72 year-old female patient, had severe communication problems three days after she broke her thighbone in a traffic accident. She could not understand when she came to the hospital or where her address was. She could not converse normally with another person, but the therapist could get her to talk about set topics; for instance, she could speak about her two pet dogs. The therapist asked her husband about her daily life at home and found that she liked classic music and movie music. The therapist could speak to her in the circumstance of listening to the music, so that she remained calm in conversation and recovered her presence of mind.

According to Habermas and Blick (2000), narrative analysis consists of temporal coherence, causal coherence and thematic coherence. It is important that therapists listen to patients' speech carefully and, by using narrative analysis, it is possible that the patient won't lose daily life events. Those practical applications of narrative analysis would be more important for future investigation of medical care.

### **Mitsuki NIREGI, Ph.D.**

Clinical Psychology Educator, Clinical Psychologist, Certified Counselor      born: July 23, 1938

2001-present      Dean and Professor, Department of Clinical Psychology, Rissho University

1997-2001      Professor, Ochanomizu University

1996-1997      Professor of Psychology, Jichi Medical School

1987-1997      Associate Professor of Psychology, Jichi Medical School

1976-1987      Assistant Professor of Psychology, Jichi Medical School

1974-1976      Supervisor of Tochigi Prefecture Educational Board

1964-1974      High School Teacher of Tochigi Prefecture

1961-1964      Researcher of Nisiki Institute at Kureha Chemical Industry

### **Educational Background**

1992      Ph.D. from Jichi Medical School

1980-1981      Michigan State University (Educational Psychology, Master of Arts)

1961      Graduation from Tokyo Educational University(natural science, BA)

**Common Materials for Environmental Education in the Asia-Pacific Region**

(CAPaBLE Project of the Asia-Pacific Network for Global Change Research)

**Azizan BAHARUDDIN<sup>1</sup>    Jariya BOONJAWAT<sup>2</sup>  
Fumiaki TANIGUCHI<sup>3</sup>**

<sup>1</sup> **Director, Centre for Civilisational Dialogue, University of Malaya, Malaysia**

<sup>2</sup> **Associate Professor, Chulalongkorn University, Thailand**

<sup>3</sup> **Director, General Institute for the Environment, Konan University, JAPAN**

**Main Objectives of the Satellite Symposium: Establishing International Guidelines for Environmental Education (II)**

Environmental Education is implemented as a major approach for sustainable development and is the interaction between the science community, policy-makers and those involved in the education sectors (primary, secondary & tertiary). In this sense, environmental education is an important approach to materialise one of APN (Asia-Pacific Network for Global Change Research)'s goals of linking science and policy.

The fundamental objectives of the project of Guidelines for Environmental Education Focusing on Environmental Ethics and Human Dimension of Global Change cooperated between Konan University, Japan and University of Malaya, Malaysia are:

- (1) To make full use of participating countries' experience & knowledge of global change research to formulate guidelines for environmental education & sustainable development.
- (2) To fill the existing gaps among teachers & other stakeholders involved, such as global change experts, decision-makers, etc., by developing methods/modules for environmental education that can be used as a basis for countries in Asia.

The project is planned for approximately two years from November, 2005 to December 2007, and will include two "sets" of international symposia and workshops the first in Kobe, Japan, and the second in Kuala Lumpur, Malaysia. These symposia and workshops will:

- (1) Share the experiences of participating countries in environmental education & sustainable development.
- (2) Discuss how to mobilise these experiences particularly, for this project, in the Asian context.
- (3) Discuss the potential roles of networks in the Asia-Pacific region with respect to environmental education and sustainable development and begin to formulate/develop guidelines for environmental education.
- (4) The outcomes of both sets of symposia and workshops will be used to formulate guidelines that can be used by countries in Asia to develop environmental education guidelines to suit the needs of their own countries.

**Some of Outcomes of the Project**

The outcomes of the projects will be:

- (1) To hold a symposium and workshops that will:
  - a) Elaborate the concept of environmental education that focuses on ethics and the human dimensions of global change.
  - b) Elaborate and identify the potential role of networks such as APN in the region.
  - c) Establish skeletal guidelines for environmental education that are flexible to suit the needs of countries in the Asian region.

- (2) To hold short courses/workshops and site visits in order to: develop Curriculum and Materials, and develop documentaries on DVD/CD-ROM.
- (3) To introduce curricula and models that can be used in mainstream education systems (curricula will be written in a way that will allow straightforward adaptation for the needs of individual countries).
- (4) To publish and disseminate information on environmental education and sustainable development that highlights the latest discoveries, techniques, technologies, and strategies for environmental sustainability.
- (5) To establish a network of resource persons for environmental education and sustainability.
- (6) To establish empowered communities who have increased awareness of their roles and contributions to environmental and sustainable issues.

**Azizan BAHARUDDIN (Project Proponent)**

**Educational Background**

Ph.D History and Philosophy of Science (science and religion), University of Lancaster, 1989

**Professional Career (Including Position)**

She is currently a professor at the department for Science and Technology Studies, as well as the Director at the Centre for Civilisational Dialogue, University of Malaya. Thus far she has published about 10 books and 90 articles in the areas mentioned. In the field of environmental education and ethics, her most recent publications include:

- (1) Richard Foltz, Azim Nanji, Azizan Baharuddin (eds.). 2003. Islam and Ecology: A Bestowed Trust. University of Harvard Press.
- (2) Azizan Baharuddin (ed.). 2002. Proceedings of the Japanese Society for the Promotion of Science Workshop on Environmental Ethics, Regulation and Education. 7-8 January 2002. Universiti Malaya, Kuala Lumpur.
- (3) Azizan Baharuddin (2001). The Role of Dialogue of Civilizations in Peace Education. Proceedings of First SEACSN Malaysian National Workshop. 7-9 November 2001. pp. 41-42.
- (4) Azizan Baharuddin. 1996. Youths, Values and Development. Yayasan Kobena, Kuala Lumpur.
- (5) Azizan Baharuddin (ed.). 1995. Environment and Development: Ethical and Educational Considerations. Institute for Policy Research, Kuala Lumpur.

Azizan is also actively involved as a consultant for various government, ministries and NGO's in projects/areas related to her field of interest.

**Field** The impact of science on society, science and religion; environmental ethics; inter-religious and inter civilisational dialogue

**Jariya BOONJAWAT (Project Member)**

**Educational Background**

Ph.D. Biochemistry ,1974, Mahidol University

**Professional Career (Including Position)**

- |            |   |
|------------|---|
| 1975       | Lecturer, Department of Biochemistry, Faculty of Science, Chulalongkorn University, Bangkok.  |
| 1977       | Assistant Professor, Department of Biochemistry.  |
| 1981       | Associate Professor, Department of Biochemistry.  |
| 1981-1983  | Director of Graduated Studies, Faculty of Science, Chulalongkorn University .   |
| 1984-1988  | Head, Department of Biochemistry, Faculty of Science, Chulalongkorn University.   |
| 1990-1991  | Chairperson, Biochemistry Branch, Science Society of Thailand under the Patronage of His Majesty the King.  |
| 1993-1995  | IGBP National Committee.  |
| 1995-1996  | Interim Technical Director of SEA START RC.   |
| 1996- 2000 | Director, Southeast Asia START Regional Centre [START: Global Change System for Analysis, Research and Training] c/o Environmental Research Institute, Chulalongkorn University . |
| 1997- 2002 | International Global Atmospheric Chemistry (IGAC) Scientific Steering Committee (SSC) of the International Geosphere Biosphere Programme (IGBP)                                   |
| 1998-2005  | Coordinator: TJTTP-JBIC Research Profile 6: Utilization of Natural Rubber   |
| 2003-2005  | Scientific Planning Group (SPG) of Asia Pacific Network (APN) for Global Change Research  |

**Field** Environment and others

**Common Materials for Environmental Education and Guidelines:  
Public Awareness, Management and Biodiversity**

**Manoj L. SHRESTHA**  
**Professor**  
**Konan University**

When deciding the common materials and guidelines for environmental education the first and foremost task will be to identify each country's existing weakness, gaps and difficulties and other problems that threaten their ecology. The major causes should be analyzed and identified. The broad participation of all the stakeholders should be seriously considered. The following points are the main threats to environmental education. They are:

- (1) Low level of public awareness and participation.
- (2) Weak institutional, administrative, planning and management capacity.
- (3) Inadequate data and information management
- (4) Lack of visionary policy and effective strategy for biodiversity conservation

The following principles should be taken into consideration while formulating environmental educational guidelines:

- (1) Highlighting each country's **ecosystems, species and biological resources** which are indigenous as well as endemic and which together will give each country its **DISTINCT** and **UNIQUE** ecological character, which is paramount in the protection and management of their biodiversity and environment as a whole
- (2) The conservation of nature may sometimes result in adverse impacts on some communities and individuals. Such adverse effects need to be identified and minimized.
- (3) Meaningful public participation is not possible without genuine public information designed to educate and inform at all levels, as appropriate.

## Environmental Education Materials: Some examples from British Columbia, Canada

**Nancy J. Turner**  
**Distinguished Professor**  
**School of Environmental Studies**  
**University of Victoria**

In British Columbia, environmental educators have developed a wide range of materials and strategies to support education programs relating to the environment, health and sustainability. These include web-based resources for access by teachers and students alike through the B.C. Ministry of Education, the Canadian Ministry of the Environment and other government agencies, such as B.C. Parks, and Ministry of Water, Land and Air Protection. These agencies, and associated organizations like *Eco Education BC*, have developed a series of posters and pamphlets, as well as print and audiovisual materials, available to teachers. Public and University Libraries also provide printed materials and audiovisual materials to be used in developing environmental education curricula. Some of these are intended to be part of formal school and university curricula, whereas others are intended for general informal use. Some complete curriculum packages for environmental education have been developed, but these can quickly become obsolete, and many are no longer available. There are also various television programs offered through The Knowledge Network and Public Television, including David Suzuki's *The Nature of Things*, *National Geographic* films, and other films on nature and wildlife that assist environmental educators. The Canada Film Board also offers many different films available for borrowing and showing in schools and universities.

As well as these "packaged" resources in print and film, there are also other, more novel venues available for environmental education. There is, for example, a university-run program to place weather stations in schools as a means of raising awareness of climate change. As well, there are several demonstration native plant gardens and ethnobotanical gardens in British Columbia that can serve as living museums for learning about human cultural relationships with plants. Many camps and outdoor education sites, including marine stations and centres, provide opportunities for students and teachers to learn about the environment and natural history first hand, either with guidance of the teacher, or with resource people trained in outdoor education. There are also some summer internship programs available to students in fisheries and other environmentally oriented government departments. School or university based projects on land stewardship, food production, and food preparation, such as re-enacting the traditional practice of pit-cooking root vegetables are further examples of participatory environmental education projects.

Some environmental education projects have themselves yielded booklets, videos and other materials that can then serve as models for projects in other places and other contexts. For example, the posters and booklet "Plants of the Gitga'at People" contain student reports that tell, from the students' perspective, about the wealth of plant life that indigenous people have relied upon for thousands of years. With modern technology, it is relatively easy to put together videos, posters and print materials as a classroom project, so that the students "learn by doing" in a group and interactive learning experience. The results of their work then form the foundation for further education programs.

There is much to be done in the area of environmental education in Canada. Many urban students, for example, are much more familiar with the various makes and types of cars and computers than they are with the local plants, animals and habitats. Many do not make environmentally responsible lifestyle choices, and many are simply unaware of the reliance we humans have on our environment. Establishing International Guidelines for Environmental Education will be a positive and important step towards improvement of environmental education in Canada and around the world.

## **Satellite Symposium II**

**Forum A-2**

**Health Promotion and Developing Participation of the General Public**

*Coordinator*

**Prof. Tadaharu NAKAO**

**Forum B-2**

**How to Introduce Environmental Education in National Government Parks:**

**Demonstration of Environmental Education Using On-line TV-net**

**Meeting System between Japan and Thailand**

*Coordinator*

**Prof. Fumiaki TANIGUCHI**

**Prof. Laddawan KANHASUWAN**

## **HIV Risk Behaviors among Ethnic Minorities in Northern Thailand**

**Eiko KOBORI**  
**Kyoto University**  
**School of Public Health**

During the end of the 1980's to the middle of the 1990's Thailand experienced high HIV prevalence especially among female sex workers (FSWs) and their male clients. Intensive prevention activities by the government and public sectors, however, successfully increased condom use among FSWs and their clients, and reduced male use of brothels, contributing in the evident decrease of the number of new HIV infections in the late 1990's. Although Thailand succeeded in reducing the prevalence of HIV among those high risk populations, HIV is now prevailing among general populations, including the youth and housewives. Ethnic minorities are one of those vulnerable general populations, especially in upper northern Thailand, one of the epicenters of HIV infection in Southeast Asia.

Approximately 500,000 people belong to ten ethnic minorities that densely populate the mountainous areas in upper northern region. Although they have been left behind in social and economic development in the last three decades as a consequence of historical, cultural, linguistic, and geographical barriers, including political reasons, reflecting the increasing involvement of their societies with Thai society, the HIV infection risk of the ethnic minorities has begun to be reported and studied.

In 2003 we conducted a cross-sectional questionnaire survey in two mountainous villages (developed and less developed) of the Karen, a major ethnic minority in Thailand. The results revealed that declining conservative traditional sexual behaviors, consisting of premarital and extramarital sex and sex with a FSW, were found associated with a mobile lifestyle between the village and the town, such as, occupational experience in town or convenient access to town. A history of sexually transmitted infections among males was associated with sex with a FSW.

We are now planning the next study for investigating HIV infection risk behaviors among migrated ethnic minorities in Chiang Mai City, the center of the economy in the region. The results of the study are expected to provide distinct evidence of the significance of health promotion in the population.

### **Educational Background**

1983	Bachelor of Science, Faculty of Science Division II, Tokyo University of Science
1996	Master of Arts, Thai Studies, Chulalongkorn University
1999	Master of Health Science, Tokyo University
1999	Department of International Cooperation, The Research Institute of Tuberculosis
2003	JICA Expert, ASEAN Institute for Health Development, Mahidol University
2004	Researcher, Kyoto University School of Public Health (Up to present)
2006	Ph.D, Kyoto University School of Public Health (In acquisition in September)
Field	AIDS prevention and behavior/Social health medicine/International health/Thai studies



**Child-friendly School and Community-Based Approach to  
Solving the Problems of HIV/AIDS Affected Children**

**Kreangkrai CHAIMAUNGDEE**  
**Masters in Non Formal Education, ChiangMai University**  
**Director of the Life Skills Development Foundation**

The Life Skills Development Foundation  
159-26 Anusarn Villa, Chiangmai – Hod Road,  
T.Padad, Maung District, Chiangmai 50100, Thailand

**Background:**

Developing the institutions of family and local community is a basic tactic for preventing the spread of HIV/AIDS and improving the care and treatment of people living with the disease. By the Year 2005, it is predicted that 380, 000 children in Thailand will have been orphaned by AIDS. The problems that children face as a result of HIV/AIDS include: poverty, discrimination and stigmatization; exclusion in school and educational activities (in & out of the classroom); learning difficulties; inadequate communication and interpersonal relationship skills; depression & low self esteem; feelings of helplessness and hopelessness; unresolved grief; and ostracism from the community and friendships. Additionally, economic pressures and the need to replace lost adult labor often forcibly exclude children from learning and development.

**Current Approaches:**

The “District-Based Projects” and “A school-community based approach for promoting health, psychosocial development, and resilience in children and youth affected by HIV/AIDS” project are community-based programs that are addressing these impacts. From these programs, community based strategies for solving the problems of children affected by HIV/AIDS have been developed. Such strategies include awareness raising for schools and communities on child rights, funding for HIV/AIDS infected and affected children, life skills and livelihood skills education for HIV affected children, and development of learning exchange networks and improved communication.

**Conclusion:**

Strategies to promote and advocate appropriate policies and measurement to local and National governments and decentralization to support multi - sector collaboration at the community level need to be developed.

## **Mr. Kreangkrai CHAIMAUNGDEE**

### **Personal Data:**

Date of Birth: 17 June, 1964                      Nationality: Thai                      Age : 42                      Religion : Buddhist  
Blood group: B                      Identity card no: 35101 00198 78 3  
Marital Status: Married                      Passport no: W 001767  
Permanent Address: 128 M.8 T. Mueanggha A. Muang Lampoon 51000 THAILAND  
Tel.(66-53) 512205  
Office Address: The Life Skills Development Foundation  
159/26 Anusam Villa, Chiangmai-Hod Rd, Amphur Maung, Chiangmai 50100 THAILAND.  
Tel. (66-53) 201 246 Fax. (66-53) 201 247 E-mail: tlsdf@csloxinfo.com Web site: www.rakdek.or.th  
Current Position: Director of the Life Skills Development Foundation

### **Educational Background:**

Master Degree: 1995 - Master of Education, Major In Non-formal Education From Chiangmai University.  
Bachelor Degree: 1986 - Bachelor's Degree in English Major, Educational Guidance Minor, From Srinakarinwirot University, Mahasakam.

### **Work Experience:**

1998- PRESENT Director of The Life Skills Development foundation

Major Responsibilities Include:

Management of Programs Implementation Based on Life Skills Education Concept And The Convention on the Rights of the Child in 6 Provincial (45) Schools Under the Thailand Child-Friendly School Program Supported by UNICEF, Save the Children (US) and Johnson & Johnson Company Ltd,.

Coordination with Core Partners Such as the Office of National Primary Education Commission, UNICEF Thailand Office, Universities, Teacher Collages And Local Administrative Offices.

Provide Supervision and Facilitation on Training Courses For School Teachers and Educational Supervisors including: Active Learning, Self-esteem, Supporting HIV Affected Children to Deal With Death, Life Skills Education in Thai Primary School Curriculum, How to talk with Children, Understanding CRC In Relevant Context, Discovery Learning Approach, School-Self Assessment Process, Partnering and Capacity Building Training Workshop etc.

Monitoring and Progress Reporting, Networking with External Partners, Donors, and Organizations in The Field of Children and Youth Development Based on CRC and Life Skills Education.

## Conservation and Utilization of “Satoyama” in the City Park

**Shuji SUZUKI**  
**Chief Officer**

**Ministry of Land, Infrastructure and Transport**  
**Akashi-Kaikyo National Government Park**

### I. The Park System in Japan

#### 1. The Park system in Japan

National Government (City) Park	National (Nature) Park
- Facilities affiliated with city planning - One of the Public facilities (as roads, etc.)	- In regions with beautiful landscapes of nature, designate districts to preserve nature.
- Buy up lands, usually. - Construct facilities (park-roads, playground, etc.), plant trees.	- Control actions which have bad effects on the nature (building, cutting trees, etc.) in designated districts.
Ministry of Land, Infrastructure and Transport	Ministry of Environment
National Government Park	National Park

#### 2. National Government Parks in Japan

### II. “Akashi-Kaikyo” National Government Park

#### 1. Awaji area (opened to public) and Kobe area (under construction)

#### 2. Akashi-Kaikyo National Government Park

### III. Our Aim in Kobe Area

#### 1. What is “Satoyama”?

#### 2. Conservation and Utilization of “Satoyama”

### IV. The Way to Construct, Maintain, and Manage the Park

We hope many people and civic groups participate in our project.

We will think about how to manage the Park first. We will construct required institutions gradually to manage the park



## **Workshops**

### **Workshop A**

### **Folk Medicine and Massage in Thailand**

*Moderator*

**Mr. Yoshizo NAKAZA**

### **Workshop B**

### **Activities of Environmental Education for Development of Nature Trail:**

### **How to Improve Handbooks for Teachers and Students**

*Coordinator*

**Prof. Laddawan KANHASUWAN**

**Mr. Wacharin SANOASIANG**

## **Folk Medicine and Massage in Thailand**

### **Introduction**

The evolution of Thai traditional medicine has concurrently grown in human society since the pre-historical period. There are some historical evidences, e.g., the discovery of seeds and herbs such as beans, peppers and bitter cucumbers from Banchieng and other ancient cities. At the beginning of this historical period, early basic treatment would be done at ancient hospitals; Arokaya Sala-place for the treatment and well-being of people from Thai traditional medicine. In the area of Indochina, the north-east, the north, the south, the west, and Khom Kingdom, details appeared in the inscriptions on ancient stones.

The development of herb and Thai traditional medicine began in the Sukhothai Period, flourished in Ayutthaya and Rattanakosin Era 250 years ago, passing through a cycle of birth, maintenance, degeneration and then revival in the modern period. This history is a worthy cultural heritage and must be passed on to further generations. The collection of the background and whole knowledge of the body of Thai traditional medicine should be systematically revived and exhibited for dissemination to the public and interested people both in Thailand and overseas.

### **Wisdom based on Buddhism**

Buddhism is involved with Thai traditional medicine in the concept of body, element and mind as a holistic model of life; birth, aging, illness, and death. Thai wisdom relieved suffering by paying respect to a supernatural power and holiness. Therefore, Si-Hing Buddha, Paisachkuruvaithunprapa Buddha as the Buddha of Medicine, and Seven-day Images of Buddha are originated auspiciously, so that people are able to worship, meditate, and give blessings, fortune, happiness, well-being and health; to be free from misery and illness.

### **Evolution of Thai Traditional Medicine**

There were many textbooks, experts, doctors of massage and doctors of herbal medicines. After the Myanmar destroyed the previous cosmopolitan Ayutthaya, the ancient wisdom continued to be cultivated until the Rattanakosin Era when modern medicine originated. Modern pharmacy had been suffering a lack of supply when the Second World War began; therefore the King revived and promoted Thai traditional medicine to international standards.

### **Thai Traditional Massage**

The theory of Thai massage genuinely reflects Thai wisdom. There are two types of Thai massage, such as the Royal massage applied to the royal family and high authorities, and Folk massage applied within the family. Thai people have never forgotten Thai wisdom, including Thai style exercises or Rue See Dat Ton; Yoga hermit practitioner, herbal hot compresses, and herbal steam baths. All these have enhanced good health for a long time.

### **Thai Massage Basics: An Ancient Art of Body Therapy for Healing, Health, and Transformation**

Thai Massage is an interactive manipulation of the body using passive stretching and gentle pressure along

energy lines. These movements help to

- adjust the skeletal structure
- increase flexibility
- relieve muscular and joint tension
- stimulate internal organs
- balance the body's energy system

The effect is uniquely relaxing as well as energizing. Receiving a Thai massage is a bit like doing Yoga without putting forth any effort while also getting acupressure treatments!

Sessions typically last two hours, and are performed on a floor mat with the client dressed in comfortable loose clothing. Thai Massage uses two primary procedures - applying gentle pressure with the hands and feet, and a wide variety of passive stretching movements.

With these techniques, applied in a quietly meditative atmosphere, space is created in the musculoskeletal structure, the body begins to open and regain flexibility and ease of movement, while the mind gently returns to calm alertness. Tension and toxic material is released from the joints, muscles, and connective tissue. The energy body, as well as the internal organs, are stimulated by pressure on peripheral reflex points.

The work displays an inherent knowledge of the inner workings of the body, a knowledge that developed over centuries of practice. There is something in the essence of this work that appeals to a wide range of people on a core level; something that satisfies their physical and emotional needs, and perhaps even assists in their spiritual needs.

Thai massage appeals to people and is effective because it treats the client with respect while encouraging them to let go of physical and emotional restrictions and to go beyond their present limitations. As a client once observed, it's a whole and total approach to wellness which allows one to feel in harmony with the rhythms of life.

This ancient therapy is beneficial for young or old, active or inactive, healthy or not so healthy. While each person will respond to this work in terms of their own experience and present state of health, it is well to remember that Thai Massage has been used for countless generations to treat degenerative conditions and promote wellness.

Thai Massage facilitates a sense of unity, wholeness, and balance. It creates a dynamic physical experience which integrates the body, mind, emotions and spirit.

Thai Massage assists the body's innate desire to return to optimum performance and optimum health, contributing to a sense of ease and well-being. One begins to sense the rightness of the inner Self, Being, and of Life.





# **Oral Presentations**

**A-1/A-2**

**Health Behavioral Science Session**

**B-1/B-2**

**Environmental Education Session**

A1-1

**EATING BEHAVIOR, PSYCHOLOGICAL CHARACTERISTICS AND  
WEIGHT GAIN IN OBESE WOMEN**

**Obata, Maki<sup>1</sup> Yamazaki, Kumiko<sup>2</sup> Takayasu, Tohko<sup>1</sup> Yamaguchi, Setsuko<sup>3</sup> Lin, Crystal<sup>1</sup>**

**1. Graduate School of Human Sciences, Waseda University**

2-579-15 Mikajia Tokorozawa, Saitama 359-1192, Japan

**2. Faculty of Human Sciences, Waseda University**

2-579-15 Mikajia Tokorozawa, Saitama 359-1192

**3. Institute of Physical Fitness Sports Medicine and Rehabilitation, Aichi Medical University**

Nagakute Aichi 480-1195

**PURPOSE:** The relationship among eating behavior, the psychological characteristics and weight gain in obese women after taking the diet program was investigated.

**SUBJECT and METHOD:** The subjects are 60 women who completed a 6-month diet program between 2000 and 2004 and 11 women who did not experience the program; their average age was 50.0 years old (*SD* 12.2). All subjects approved the concept of this research and agreed to cooperate. These women did not have any serious diseases, but had simple obesity with a BMI score of 25 or above. They completed the Japanese-DEBQ (Imada, 1994) and the Japanese-GHQ30 (Nakagawa & Daibou, 1985).

**RESULTS:**

- 1) The means for each eating behavior component-restrained eating, emotional eating, and external eating-in DEBQ were as follows: 33.3 (*SD* 7.0), 27.8 (*SD* 10.4), 29.8 (*SD* 6.6). The mean of the total GHQ score was 4.5 (*SD* 4.4).
- 2) The difference in three scales of DEBQ between those who completed the program and who did not reveal that the former had a higher score for restrained eating ( $t=2.79, p<.01$ ).
- 3) We further separated those who completed the program into 2 groups: 32 of them who gained weight, and 28 of them who did not gain weight. When differences in both DEBQ and GHQ scores between those groups were evaluated, the former showed a lower restrained eating ( $t=3.31, p<.01$ ) and a higher external eating ( $t=-2.11, p<.05$ ), as well as a higher tendency for both emotional eating ( $t=-1.88, p<.10$ ) and GHQ ( $t=-1.82, p<.10$ ).
- 4) The relationship between BMI and the scores of DEBQ and GHQ were studied depending on the year(s) that has/have past since completing the program. The subjects were divided into 3 groups: those who completed the program less than a year ago ( $N=12$ ); 1 to 3 years ago ( $N=27$ ); 3 to 5 years ago ( $N=21$ ). Only the group which completed the program 1 to 3 years ago showed a statistically significant negative correlation between the gain in BMI and restrained eating ( $r=-0.44, p<.05$ ), and a positive correlation between the gain in BMI and emotional eating ( $r=0.56, p<.01$ ), external eating ( $r=0.62, p<.01$ ), and GHQ total scores ( $r=0.44, p<.05$ ).

**DISCUSSION:**

- 1) The results suggested that those who completed the program succeeded in restraining their eating behaviors than those who have not yet experienced it.
- 2) It was indicated that those who gained weight after completing the program failed to restrain their meals, and that their eating behaviors tended to be greatly affected by outside stimuli such as the appearance of the food and also by their moods.
- 3) The results suggested that monitoring their own eating behavior and maintaining mental health within 1 to 3 years after completing the program may prevent them from gaining weight.

## A1-2

### THE RELATIONSHIP WITHIN A FAMILY, SPOUSES, AND SIBLINGS IN TYPE A BEHAVIOR PATTERN: IN SPECIFIC TO JAPANESE UNIVERSITY STUDENTS

Lin, Crystal<sup>1</sup>      Yamazaki, Kumiko<sup>2</sup>      Hashimoto, Makiko<sup>1</sup>

1. Graduate School of Human Sciences, Waseda University

2-579-15 Mikajima Tokorozawa, Saitama 359-1192, Japan

2. Faculty of Human Sciences, Waseda University

2-579-15 Mikajima Tokorozawa, Saitama 359-1192, Japan

**PURPOSE:** The purpose of this study was to investigate the relationship of Type A Behavior Pattern (TABP) within a family-including parent-child, spouses and siblings-by using the Coronary-prone Type Scale for Japanese (CTS), which takes into consideration TABP's qualitative side specific to Japanese people.

**SUBJECTS and METHOD:** The subjects were university students, their parents and one of their siblings. Of the questionnaires sent, 283 were returned with responses approving the research concept. 165 letters were returned from a child and both parents, and these responses investigated the relationships within a family and spouses. The subjects: 67 male students, 98 female students and their fathers and mothers (165 each). Next, 170 letters were returned from the children and their siblings, and these responses were used to study the relationship within siblings. The subjects: 66 male students, 104 female students and 170 of their siblings. The groups were further separated according to their sex: 41 of group A consisted of male students and their male siblings; 51 of group B consisted of female students and their female siblings; 78 of group C consisted of siblings of different sexes.

The CTS scale was used (Seto, Hasegawa, Sakano, & Agari, 1997), made up of 3 factors including Hostility, Perfectionism, and Workaholism, with each factor having 10 determining questions. Each answer is rated from 6, the strongest tendency to 1, the weakest tendency.

**RESULTS:** The relationships within a family and spouses were studied using 165 groups of university students and their parents. The father group had a higher score when the total CTS scores were compared between spouses ( $t=6.17, p<.01$ ). Moreover, the positive correlation was obtained between spouses' CTS score ( $r=.21, p<.01$ ). The positive correlation was observed in all relationships; son and mother ( $r=.32, p<.01$ ), daughter and father ( $r=.24, p<.05$ ), and daughter and mother ( $r=.30, p<.01$ ). In multiple regression analysis with DV being children's CTS score and IV being father and mother's CTS total score, both male and female children's TABP is contributed by their mother ( $\beta=0.29, p<.05, \beta=0.25, p<.05$ ). Next, 170 groups of university students and their siblings were examined. All A, B, and C groups did not reveal any correlation within siblings.

**DISCUSSION:** In the relationship within a family, mother's TABP greatly contributes for children's TABP, which partially matched with the results obtained in the research done by Oashi and Yamazaki (2003). Moreover, the similarity of TABP in spouses was suggested. In addition, though our overall CTS scores among siblings did not reveal a correlation, when the 3 CTS factors were individually examined, some correlation existed; thus, their age, number of siblings, and the birth order may have influences, which may possibly be the topic for future research.

## A1-3

### EDUCATION AND HEALTH IN THAILAND

**Pornsuk HUNNIRUN**

**Srinakharinwirot University**

Sukhumvit 23 rd, Bangkok 10110, Thailand

The purpose of this study is to explain the relation between education and health in Thailand. The focus points are to answer these questions: What is the association between education and health in Thailand?, Do educated Thai people live healthy lifestyles?, Does a healthy lifestyle connect education to health in Thailand?, and Is there a connection between education and healthy lifestyle for Thai people?

**Introduction:** Thailand is situated in continental Southeast Asia and is part of the Indochina Peninsula, covering an area of about 514,000 square kilometers. The population of Thailand is 63.08 million (2003); almost all residents (99.3%) are of Thai. The Thai language is officially used for speaking and writing. Most Thai people are Buddhists (94.2%). Education reform has been implemented to expeditiously provide 12-year basic education. Compulsory education is 9 years. The Thai government subsidizes education, making it free for students through kindergarten to 9th grade.

**Health Situations in Thailand:** Thailand's healthy life expectancy was 60.1 years: 57.7 for males and 62.4 for females. The Ministry of Public Health is strengthening disease surveillance systems for detecting emerging infectious diseases such as SARS and Avian Influenza. As Thailand has had more alien workers, particularly along the borders, several infectious diseases are widespread such as malaria, diarrhoea, HIV/AIDS, poliomyelitis, filariasis, and anthrax. The leading cause of death - 27.7 percent of all death - in Thailand in 2003 was Heart Disease.

**Market Position in Labor Force:** Thailand is a free-market economy and has been a member of the World Trade Organization (WTO) since January 1, 1995. Market position has three aspects to consider: economic stress, household income, and employment. In 2003, there were 24.8 million workers in the informal employment system (71.6% of the total labor force), including those in the agricultural sector. The result of Anantachoti's research has found that income shows the strongest relationship with whether or not a person will use vitamins and minerals on a regular basis. As income increases, use of vitamins and minerals increases. Those who have incomes of more than 20,000 baht per month are about three times more likely to use vitamins and minerals on a regular basis (Anantachoti, 2001:87).

**The Positive Association of Education and Health:** There are the positive associations of education, health, market position, psychological and social resource, social support and healthy lifestyle in Thailand, because educated Thai people have more personal and social resources, better health, a higher level of mastery (knowledge skills, better health habits, better problem solving skills) and social support (reduced psychological distress) including good employment and high income, which can effect health outcomes. Therefore, education (higher levels of education) is linked to enhanced health and a healthy lifestyle (eating properly, exercise, using seat belt, not smoking and drinking). In addition, psychological and social resources, and social support can also reduce exposure to cause poor health.

**Impact of Education on Health Outcomes:** Knowledge and a good education were recognized as keys to living a happy life because they provided gateways out of mental strain and excessive physical labor (Paknawin-Mock, 2000:305). Thailand defines health as the state of physical, mental, social, and spiritual well-being that is interrelated holistically. Health becomes more complex due to many dimensions of health. To improve people's health status, it is necessary to understand the link between education and health and several other elements, i.e. the individual (genetics, behaviors, beliefs, and spirituality), the environment (physical/ biological factors, economic/politics, culture/religion, population/education, social and security, communication and transportation, and technology) and the health service system (equity/coverage, quality/efficiency, type and level of services, and public/private), including active participation of all sectors of Thai society.

A1-4

## SELF-HELP GROUPS' WEBSITES IN JAPAN

Akimoto, Nobuko

Japan Advanced Institute of Science and Technology

1-1 Asahidai, Nomi, Ishikawa, 923-1292, Japan

The number of Internet users has steadily increased in recent years, and accordingly, in the field of medicine and health care, self-help groups have opened their websites to transmit information across the Internet. The purpose of this study was to examine what kind of message is sent out via their websites and how they intend to utilize their websites.

In this study, four functions of the websites of the self-help groups were confirmed; namely, "Activation of communication", "Sharing and utilization of experiential knowledge", "Provision of information" and "Improvement of recognizability". The self-help groups were categorized into seven groups according to their features and functions.

The visions for the self-help groups Internet community were "Positive participation in an effort of realizing the society friendly to everyone" and "Further improvement of QOL (quality of life)".

## A1-5

### A STRUCTURAL EQUATION MODEL ANALYSIS OF PSYCHOSOMATIC SUFFERINGS IN ADULT ASTHMA PATIENTS

**Kaoru Fujisaki, RN, DNSc \*1, Kazuhiko Fujisaki, MD\*2**

**\*1: Osaka University Graduate School of Medicine, Nursing Science**

1-7 Yamadaoka, Suita, 565-0871, Japan

**\*2: Gifu University School of Medicine, Medical Education Development Center**

#### Background & Objective

The previous studies found that body image of asthma patients was more disturbed than that of non-asthmatics, and the disease specific Health-related Quality of Life of asthmatics was generally worse in the body image disturbance group than in the normal group.

The aim of this study was to disclose asthmatics' psychosomatic sufferings, which meant the body-mind problems, of adult asthma patients in the long-term management of this chronic disease. Using structural equation modeling, we tried to analyze the relations among sub-scores as structural sub-concepts of the Asthma specific Health-related Quality of Life (AS-HRQL) and the Body Image Disturbance (BID).

#### Methods

A cross-sectional survey was conducted by distributing a self-report questionnaire to adult asthma patients who were visiting primary physicians specializing in respiratory disease. The questionnaire was filled in anonymously, and the patient was free to make a final decision on returning the completed questionnaire.

BID and AS-HRQL levels were measured by using Body Image Assessment Tool-22 (BIAT-22) and Asthma Health Questionnaire-33 Japan (AHQ-33J), respectively. Somatosensory Amplification Scale (SSAS) was also used to measure Somatosensory Amplification (SSA); the individuals' somatosensory sensitivity indicator has been considered to indicate personal characteristics strongly related to BID.

#### Results

The survey was conducted in cooperation with eleven municipal hospitals with a bed capacity of 100 to 400, and a complete response was obtained from 367 patients (41.8% collected).

As a premise for analysis, all questionnaire items of three scales were examined. Considering conceptual relations among each variable and sub-scale variable, a basic model "that SSA influences AS-HRQL, AS-HRQL also influences BID" was hypothesized. Regarding the internal structure of AHQ-33J, three variables of "Daily activity", "Social activity", and "Economics" were compiled as a new latent variable of "Influence on daily living" for each structural concept. Then, a linear causal relationship was hypothesized as follows: "Asthma aggravating factors" - "Asthma symptoms" - "Influence on daily living" - "Influence on Emotion".

As a result, a path diagram in structural equation modeling with effective goodness of fit index was obtained, including six variables of AHQ-33J, one variable SSAS, and four variables of BIAT-22 ( $\chi^2=78.265$ ,  $df=36$ ,  $p=0.000$ ,  $GFI=0.964$ ,  $AGFI=0.933$ ,  $RMSEA=0.057$ ).

## **Conclusions**

The final path diagram of this study confirmed the following regarding the relationship between QOL and the body image of asthma patients.

- (1) Body image of the asthma patient is defined, not by the degree of symptoms, but rather by obstacles and difficulties felt in everyday life which derive from the degree of symptoms. Emotional problems do not directly affect the body image of asthma patient.
- (2) Somatosensory sensitivity affects both QOL and body image of the asthma patient.
- (3) Higher somatosensory sensitivity leads to causes more aggravating factors which trigger an asthma attack, leading to increased obstacles and difficulties felt in everyday life.
- (4) Somatosensory sensitivity not only affects body image directly but also aggravates body image problems through increased obstacles and difficulties felt in everyday life.

## A1-6

### **An Investigation on the Applicability of Game Theory: An Analysis of the Decision Making Process between Patients and Nurses in a Hospice Setting**

**Matsubara, Miyuki<sup>1</sup>**

**1 Kure University Faculty of Nursing,  
23-8, Agaminami, Kure, Hiroshima Prefecture, 737-0004, Japan**

#### **BACKGROUND**

The objective of this study is to investigate the applicability of game theory to nursing practice. Game theory was originally proposed for economic analysis and it has contributed to the successful analyses of various kinds of human behavior since then. In game theory the actor under analysis is called a “player”. The player chooses one of his available strategies to maximize his pay-offs, which represents his benefit or the degree of satisfaction. The pay-off is dependent on the choice of the other players.

#### **PURPOSE**

The purpose of this research study was to analyze situations between patients in hospice care and nurses performing their nursing care using the framework of game theory. The analyses included actual nursing care such as bathing service, meal service and putting on diapers. The analyses showed that failure of cooperation or conflicts sometimes took place between patients and nurses. The analyses aimed to show that the application of game theory was in fact useful to help realize the most ideal state both to patients and nurses by explicitly illustrating the conflicts of interest which were involved in the patient-nurse relationships.

#### **METHOD**

First, in this review article, methodological detail of the application of game theory to nursing is explained. There has been no previous application of game theory to nursing although there have been several analyses on conflict between patients and nurses where the application of game theory might well contribute to resolve conflicts. After giving a brief review of the history of game theory, the framework of game theory is explained. In game theory, each player is expected to choose a strategy to maximize his own pay-off. We then explained Nash equilibrium and Pareto optimality which play important roles in the game theory. Secondly, we collected data through ethnographic research of actual nursing situations in a hospice. A video tape recording of a nursing situation formed part of this ethnographic data. (To gain cooperation with hospice, patients and families, permission was granted to do this research). We chose twenty-one situations to evaluate relationships between patients and nurses. Two persons supervised the analysis of the data. Various typical situations well studied by game theory, such as the battle of the sexes, the game of chicken and the prisoners’ dilemma, were also described.

#### **RESULTS**

To illustrate how the theory can be applied in nursing, one example is presented to show the steps of the application of game theory. For example, patients often insist upon using the toilet



without assistance; however, nurses know that they should were diapers. In this case, game theory helps us see how each player must negotiate to archive their preferred outcomes. The general implication of game theory to nursing theory is also discussed. The following illustrates nursing situations in terms of game theory:

### Situations and the type of games

<b>situations</b> <b>type of games</b>	<b>observation</b>	<b>meals</b>	<b>bathing</b>	<b>diapers</b>	<b>treatment</b>	<b>total</b>
agreement on the preference	6		2		1	9
battle of the sexes	1	1	1		2	5
game of chicken		1				1
prisoners' dilemma	2			4		6
<b>total</b>	9	2	3	4	3	21

### CONCLUSION

This investigation serves to support the use of game theory in analyzing decision making between patients and nurses in a hospice context.

## A2-1

### Case reports of Chiropractic: What is Chiropractic?

**Katsuko MIZUSAWA**  
**Education and Research Center for Sport and Health Science**  
**Konan University**

#### ABSTRACT

Created in America in 1895, Chiropractic today has been established in America, Canada, France and over 70 other countries as a safe and effective healthcare approach.

At the focal point of Chiropractic care is the spine and spinal column. Our daily activities can have significant effects on our bodies. Misalignment of the spine caused by these activities can cause a number of health problems.

Misalignment of the spine can compress the spinal cord that runs through it, causing disruptions of our natural functions and weakening of the innate ability of our bodies to cure and strengthen themselves. This loss of body balance can lead to muscle and joint pain and stiffness and discomfort.

Chiropractic address these issues without resorting to surgery or drugs. Spinal misalignments are corrected manually by the Chiropractor gently and safely. This restoration of the function of the spinal cord restores the body balance and maximizes the inborn strength of our bodies to cure and strengthen themselves.

#### Case 1

Subject	T. H. (Age 26. Female)
Subjective symptom	Head ache. She had to take drugs to escape the headache. Neck problem. She couldn't extend her neck.
Chiropractic adjustment	Adjustment to cervical vertebrae and pelvic.
Result	She doesn't feel headache or neck-pain, and she doesn't use any drugs.

## **Development and Effects of the Health Promotion Program Applying Gaming Simulation Technique**

**Nishigaki, Etsuyo<sup>1,2</sup>**

**1. Wakayama Medical University School of Medicine**

810-1 Kimiidera, Wakayama, Japan

**2. Kobe University Graduate School of Cultural Studies and Human Science**

1-2-1 Tsurukabuto, Nada-ku, Kobe, Japan

In The Healthy Japan 21(Health Promotion Program for 21<sup>st</sup> Century in Japan), lay people's active participation is considered to be very important, and Ministry of Health Labour and Welfare in Japan strongly empathize respecting people's autonomy and motivation, and providing environment to live healthily. However, health professionals are not always familiar with encouraging people's motivation, rather, they tend to teach and train people. There seems to be two major important ways to solve this problem. 1) Developing a health promotion program that can make people more motivated. 2) Training health professionals to be more skillful communicator. We have been working to develop the health promotion program applying SNG (Sugiura's Nattoku Game), which means persuasion game invented by Sugiura. SNG is a role playing game, which was originally invented as an environmental education. In this game, participants can experience both roles of a persuader and a persuaded. We modified the game to the health education setting, and have been applied to the medical students, non-medical college students, and the participants in the diabetes prevention program in the local community.

Study 1: Sixty medical students participated in the SNG as a part of medical behavioral science class. They both experienced the roles of a health professional and a patient in the game. The feed back showed that the students understood the importance and the difficulty of encouraging people and improving their life healthier.

Study 2: 118 non-medical college students participated in the short-period health promotion program as a part of health psychology class. The students were divided into two groups, and only the experiment group experienced SNG. All participants filled out self-evaluating life style check list and practiced two everyday healthy habits they chose for 2 weeks. The results showed that the experiment group attained higher achievement in the healthy habits, and their scores of health locus of control (HLC) were significantly different from those of the control group.

Study 3: 40 borderline diabetes patients participated in the diabetes prevention program in the local community. The program included not only SNG, but also nutrition education, physical exercise, cooking, and medical examination. The participants' average weight, BMI, and the scores of health locus of control have significantly changed after 6 months.

## A2-3

### ANALYSIS OF EXCHANGE BETWEEN A STUDENT AND HER TEACHER

**Fujino Ayumi**

**Aichi Prefectural College of Nursing & Health**

Tougoku, kamisidami, Moriyama-ku, Nagoya, 463-8502, Japan

**Purpose:** The purpose of this study was to examine the structure of exchange between a student and her teacher.

**Method:** The methods used in the study included observations of the participant in clinical practice and interviews. The clue of the data analysis was narration and "Practice guidance" which the student and the teacher had narrated. Then, the exchange was segmented into 'stimulation', 'reaction' and 'reinforcement' for further examination.

#### **Findings and discussion**

##### **1. The student's narratives concerning "Practice guidance"**

The student indicated her feeling of doubt increased despite having questioned the teacher regarding these uncertainties. The student said, "ant lion".

##### **2. The teacher's narratives concerning "Practice guidance"**

The teacher considered that the student was capable of only superficial nursing and was not "well-grounded". The teacher stated, "I want to make the student think about grounds".

##### **3. The exchange between the student and her teacher**

The student had not understood whether the patient was infected or not. The student questioned the teacher regarding 'The presence of the patient's infection'. The teacher did not answer the question but explained 'The grounds that can be used to judge whether or not an infection is present'. The student then questioned the teacher on 'The presence of infection'. Afterwards, exchange between a student and her teacher was repeated.

##### **4. The exchange seen from the student perspective**

The student learned the context, "I fell into the ant lion" and segmented the exchange according to the context. If this exchange seen from the student perspective was classified as either 'stimulation', 'reaction' or 'reinforcement', it formed the following structure.

- a) The student stimulated the teacher by asking a question on 'The presence of infection'.
- b) The student was aware of the reaction of the teacher who had not answered her question.
- c) The student reinforced the teacher by repeating the question.

##### **5. The exchange seen from the teacher perspective**

The teacher learned the context, "I want to make the student think about grounds" and segmented the exchange according to the context. If this exchange seen from the teacher perspective was classified as either 'stimulation', 'reaction' or 'reinforcement', it formed the following structure.

- a) The teacher stimulated the student by explaining 'The grounds that can be used to judge whether or not an infection is present'.
- b) The teacher was aware of the reaction of the student who had not listened to her explanation.
- c) The teacher reinforced the student by repeating the explanation.

##### **6. The structure of the exchange between a student and her teacher**

Exchange between a student and her teacher can be divided into different 'stimulations', 'reactions', and 'reinforcements'. The student and the teacher structured the exchange on the basis of a mutually different context.

A2-4

## THE RELATIONSHIPS BETWEEN JAPANESE WORKERS' SOCIAL SKILL, PERCEIVED EMOTIONAL SUPPORT, SELF-IMAGE AND MENTAL HEALTH

Higuchi, Noriko<sup>1</sup> Hashimoto, Sayuri<sup>1</sup> Higuchi, Hirohiko<sup>2</sup> Munakata, Tsunetsugu<sup>1</sup>

1. Graduate School of Comprehensive Human Sciences, University of Tsukuba

1-1-1 Tennoudai, Tsukuba-shi, Ibaraki, 305-8577, Japan

2. Higuchi Eye Clinic

### Background

Recently, the working environment of employees in Japanese companies has been increasing its severity due to such things as globalization and restructuring, and deterioration of employees' mental health has been pointed out. It is assumed that social skill trainings, including employees' communication skills are effective in order to improve such mental health for the future. We established a causal model; that is, "Employees' feeling of social skill efficacy would influence the development of good environmental perception and good self-image, and through this, awareness of stress source should go down and the tendency toward depression and anxiety would decline.", and we have revealed them from covariance structure analysis. In this research, we considered a presence of gender differences and we intended to obtain an implication for a support of the employees' mental health by simultaneous analysis of multiple populations.

### Methods

The present study was conducted on 3037 employees in a Japanese company (male: 1855, female: 1182, Mean age: 38.9±11.8), from April 2005 to November 2005. The questionnaire items for participants are as follows; demographics data, Anxiety tendency Scale, Depression Scale, Self-repression Scale, Emotional dependency Scale, Self-esteem Scale, Perceived emotional support Scale, Daily hassles Scale, Social skills Scale. We performed covariance structure analysis (simultaneous analysis by gender) to verify gender difference of our hypothetical model.

### Results and Considerations

After having examined the hypothetical model, we got a positive result on goodness of fit. For both males and females, an intensity of feeling of social skill efficacy strengthened the perception of good support, but it did not directly become a specific factor in reducing the tendency toward depression and anxiety. It was revealed that developing a perception of good self-image with a good human relationship within their surroundings or directly developing good self-image had an influence on a decline of such tendency. Simultaneous analysis by gender showed that path coefficient from "recognition of good support" to "easy awareness of stress source" was significant only for women, and we could not detect such influence on men. According to this finding, it is more desirable to think that it is necessary to consider the gender differences as stated above when we provide the support of mental health for the improvement of employees' social skills.

A2-5

**QUITTING SMOKING WITH THE AID OF NICOTINE PATCHES (2<sup>nd</sup> REPORT):  
INTERMITTENT USE OVER A ONE YEAR PERIOD**

**KUROTANI, Mamiko<sup>1</sup>      NAKADE, Miyo<sup>2</sup>**

**1. Aichi Gakusen University**

**28 Kamikawanari Hegoshi-cho, Okazaki, 444-8520, Japan**

**2. Aichi Gakusen College**

**28 Kamikawanari Hegoshi-cho, Okazaki, 444-8520, Japan**

**Aim:** To show physical and psychological changes due to use of nicotine patches and intermittent quitting support and its effectiveness.

**Method:** One year support, from February 2005, administered to 15 males from Company A. Smoking status etc ascertained prior to research and questionnaire administered after six months and one year.

**Results:** 33.3% quit, 46.7% reduced smoking, 20% still smoked. Physical and psychological changes in the five quitters prior to and one year after quitting ascertained (table 1). All participants confirmed an increase in belief in the effectiveness and efficiency of quitting smoking support. Some still felt the desire to smoke. Two out of the five increased their weight, blood fats, sugars and pressure.

Table 1: Changes in quitters.

	Physical		Psychological	Behavioral	
	Before	After	Comparisons of condition before and after	Positive	Negative
Person A (age 44)	BMI 27.4, FBS 114, BP 138/90, TC 227, TG 285	BMI 27.5, FBS 137, BP 156/104, TC 213, TG 405	Appreciates the effectiveness and efficacy of quitting support, life satisfaction increased	Instruction of others in methods of quitting smoking and experiences	Increase in appetite, food consumption
Person B (age 50)	BMI 22.3, FBS 108, BP 130/72, TC 193, TG 72	BMI 23.2, FBS 122, BP 64/34, TC 216, TG 72	Increase of belief in the effectiveness and efficacy of quitting smoking support	Weight control	
Person C (age 47)	BMI 27.9, FBS 91, BP 150/100, TC 223, TG 118	BMI 28.9, FBS 91, BP 150/90, TC 228, TG 147	Increase of belief in the effectiveness and efficacy of quitting smoking support	Instruction of others in methods of quitting smoking and experiences, weight control	

Person D (age 53)	BMI 18.0, FBS 89, BP 114/72, TC 174, TG 49	BMI 18.3, FBS 91, BP 126/80, TC 162, TG 39	Increase in the belief in the efficacy of quitting smoking support	Weight control, recognition of need to reduce stress	Increase in stress due to desire to smoke
Person E (age 41)	BMI 20.6, FBS 104, BP 84/51, TC 204, TG 136	BMI 20.6, FBS 99, BP 100/52, TC 181, TG 157	Appreciates the effectiveness and efficacy of quitting support, life satisfaction increased		

**Considerations:** A quitting rate of 33% is low, but some wanted to try again and felt support to be essential. Comparisons were only made with those who quit smoking but close individual support is necessary as quitting processes vary. We want to examine events hereafter, comparisons between quitters and non-quitters and effective methods of quitting. (Research carried out with support of The Aichi Foundation for the Promotion of Health and medical and health foundations.)

## **B1-1**

### **A Fundamental Study on Sustainability regarding Human Well-being and Environmental Health**

**Riwa WATANABE**  
**Lecturer**  
**Osaka Institute of Technology**

#### **I. Introduction**

Nowadays, we face various problems regarding life and environment due to the development of science technology. From 2005-2014, the United Nations Decade of Education for Sustainable Development will propose strategies that aim to solve these problems. However, theoretical concept and practical schema of this project are not sufficiently shared with us. Although environmental education for sustainable development is practically promoted, it needs more thorough reviews of the basic concepts of sustainability in terms of Human Well-being and Land Health.

#### **II. Concepts of Sustainability from the Viewpoint of Human Well-being**

The global environmental problems are very serious and have been affecting a global scale. For example, the aspect of the destruction of “natural environment” includes global warming, acid rain, desertification, deforestation and decrease in biodiversity, etc. A second aspect of the problems of “social environment” including economical development gives birth to a moral dilemma between sustainability and development. One of the solutions is to make the economical system and policies harmonize with the environment. Thirdly, there is another aspect of the problem of “mind environment” (Fumiaki Taniguchi: 2003) related to the environmental ethics and environmental education. Mind environment interacts with natural and social environment, and also plays an important role for improvement of our lifestyle toward the sustainable future. Therefore, it is necessary to human well-being to approach being combined with natural, social and mind environment.

#### **III. Concepts of Sustainability from the Viewpoint of Land Health**

Concepts of sustainability needs the theoretical framework of environment education based on environmental ethics if considered ESD, because such education based on environmental ethics aims for establishing the public awareness and enhancing motivation on life and environment. There are three points on this theoretical framework: (1) land ethic, (2) intergenerational ethic and (3) ecological ethic. The land ethic especially, enlarges the boundaries of the human community to the land and introduces ethical standard for every life, which is “a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong it tends otherwise”. (Aldo Leopold: 1949) Furthermore, healthy land depends on the beauty and harmony of the biota, which is in spiritual relationships to things of the land. (Aldo Leopold: 1999) These concepts suggest that sustainability based on theoretical framework on environmental ethical contents think totally of the ecosystem and the environment focusing on survival, landscape and biota, economy, society, morals, esthetics, harmony, and so on.

#### **VI. Conclusion: Sustainability regarding an Integration of Human Well-bing and Environmental Health**

The concept of the sustainability is located at the cross between bioethics and environmental ethics. The global bioethics, according to the definition which Van Rensselaer Potter (1971) proposed, has integrated "the medical bioethics" with "the ecological bioethics", which cannot be separated. Accordingly, bioethics and environment ethics have the same root from the viewpoint of global bioethics. Bioethics coincides with environmental ethics at the root, and also Human well-being coincides with Land Health as environmental health from the viewpoint of these concepts of the sustainability.



## B1-2

### **Environment Education for Expressway Toll Collectors to Create the Realization on Suspended Particulate Impact**

**Artom THONGPRASONG  
Phranakhon Rajabhat University**

The research consist of 4 objectives including comparison of suspended particulate quantity in ambient air between high traffic volume and low traffic volume expressway toll gate, suspended particulate trend by means of box model, relative comparison between suspended particulate and clinical signs, and developing a handbook for training expressway toll collectors on air pollution whose results are as follow;

Result of air samples analysis revealed that Suspended Particulate (TSP) and particulate Matter less than 10 micron (Pm-10) of highs traffic volume toll gate were  $195.41 \mu\text{g}/\text{m}^3$  and  $154.29 \mu\text{g}/\text{m}^3$ , respectively. From these result, PM-10 was over the standard. However the results of low traffic Volume toll gate during the same period of time were under the standard,  $151.08 \mu\text{g}/\text{m}^3$  and  $77.16 \mu\text{g}/\text{m}^3$  respectively. Seasonal comparison of particulate matter during the two seasons found out that Values of mentioned air pollutants in summer were higher than rainy season. From the study of Suspended Particulate trend indicated from the year 2004-2007 amount of particulate matter will be increased as per the increasing of numbers of vehicle. In the year 2007, TSP of high traffic volume toll gate will be around  $261.44 \mu\text{g}/\text{m}^3$   $\mu\text{g}/\text{m}^3$

The analysis of the relation between Particulate Matter and toll collectors' clinical signs found that, expressway toll collectors highs traffic volume toll gate have clinical signs higher than toll collectors in low traffic volume in the ratio of 62.10% 37.90%. Those 4 clinical signs are lung function test, allergy, Eosinophilia test and lung x-ray test. From the analysis between sexual of Expressway toll collectors clinical signs by (Chi-square) found that it was no related to all 4 clinical signs at the statistically significance of 95%. The comparison of all 4 clinical signs between high traffic volume and low traffic volume expressway toll collectors found that there was unrelated at the statistically significance of 95%. The analysis of working year between 3-5 years period showed no effect at the statistically significance of 95%

The evaluation for achievement test after comparison of air pollution training program in term of knowledge, understanding, skill, have been increased statistically at the significance of 95% ( $t=5.84$ ), and I term of awareness and attitude have been increased statistically at the significance of 95% ( $t=6.409$ ). Survey of the toll collectors opinion about the efficiently of air pollution handbook point out that it was regard with level of percentage very good 39% and good 60%

## B1-3

### **A Study of the Cross-curricular Environmental Education Based on Comparative Culture between New Zealand and Japan**

**Eri WATANABE**

**Gifu Prefectural Nakatsu Commercial High School**

Nowadays, Japanese compulsory education system is pointed out (i) to enrich experiential and problem-solving learning, (ii) to create a “Period of Integrates Study”, and (iii) to upgrade moral education etc. Currently, schools are making efforts to improve “comprehensive leaning ability” based on the purposes and aims of the courses of study. This school system aims at cultivation of richness in mind, such as education for the responsibility for the home, the local community and social community. And also this education includes encouraging understanding of the value of human life and the environment.

Nakatsu Commercial High School at Nakatsu City in Gifu Prefecture in Japan is in educational cooperation with Edgewater College in New Zealand. 40 students that major in English go to New Zealand on a school trip every February owing to the sister schools. The purpose of the school trip is to develop the students’ practical communication abilities such as understanding information and the speaker’s intension, and expressing their own ideas as well as deepening the understanding of other culture.

In the first semester, students have learned a wide range of topics about New Zealand such as its history, culture, industry, Maori native culture, sports, nature, and the relationship between New Zealand and Japan. Through these topics, students have recognized the differences in Environmental Awareness in New Zealand and Japan in the national and individual level. Though the geographic environment in New Zealand is quite similar to that of Japan, their Environmental Awareness is much higher than ours. A student pointed out that there are no nuclear power plants in New Zealand while there are 17 nuclear power plants in Japan. They produce about 30 % of Japan’s electric power. In New Zealand, waterpower supplies about 70 % of the country’s electricity, while in Japan more than 50 % depends on the use of fuel. From these facts, most of students in New Zealand have much interest in the Environmental Awareness.

The aim of this report is to establish the teaching methods to encourage the students to become more aware of the world around them and gain a deeper understanding of sustainable development through examining the culture and the environment of New Zealand.

## B1-4

### Prevention Measures of Dioxins: Dioxins Pollution and Countermeasures

**Sakingo IMAI**  
**Professor**  
**Hirosima Shudo University**

Dioxins is the generic term for 75 types of isomers known as PCDDs (Polychlorinated dibenzo Dioxins) and 135 types of isomers known as PCDFs (Polychlorinated Dibenzo Furan). Co-PCBs (Coplanar Polychlorinated Biphenyl) are also similar to dioxins and consist of 12 types of isomers. 2, 3, 7, 8-TCDD (Tetrachlorinated Dibenzo Dioxin), one of the PCDDs, is the most toxic of all dioxins. Dioxin concentrations are expressed as the TEQ (Toxic Equivalency Quantities) by converting the amount of detected isomer into the 2, 3, 7, 8-TCDD.

From 1960s to the first half of the 1970s, pesticides (Chlorinated Organic Compounds) were the predominant source of dioxins. Organochlorine pesticides such as DDT (Dichloro Diphenyl Tetrachloroethane), 2, 4, 5-T (Trichloro Phenoxy Acetic acid) were used in large quantities around this time, and these included dioxins typified by PCDDs, which were spontaneously produced in the manufacturing stage.

The large-scattering of organochlorine pesticides and accidents involving such substances led to the release of dioxins into the environment, and these dioxins remained and accumulated in the environment over time. Moreover, because dioxins are fat-soluble substances, they become concentrated in living fat at extremely high factors in each stage of the food chain. Having said that, advanced nations have banned the manufacture and use of problematic organochlorine pesticides, so additional environmental loads from these sources are being mitigated.

Currently, about 90% of dioxins are said to originate from waste incineration facilities, while 70% of dioxin consumption into the human body is said to come through fish and shellfish. Thus, there are growing calls for standards pertaining to food including cow- milk, as well as the implementation of blood and breast milk inspections in order to investigate effects on the human body. Countries in Europe and America have already established standards for cow-milk, etc, and The Ministry of Health and Welfare has commenced work with a view to setting standards for foodstuffs in Japan too.

It was in these circumstances that the Government of Japan enforced the Law Concerning Special Measures against Dioxins in January 2000. This law lays down standards acting as basic guidelines (environmental standards for air, water quality, and soil, and emissions standards for waste gases and wastewater from waste incineration plants and other designated facilities), and prescribes regulations concerning waste disposal, fact-finding surveys of pollution conditions, and compilation of reduction plans, etc. Article 6 of the law prescribe a tolerable daily intake (TDI) and Environmental standards established in Article 7 of the same law are as follows.

Tolerable daily intake : 4 pg/kg/day, Atmospheric environment: 0.6pg TEQ/m<sup>3</sup>  
Water environment :1.0pg TEQ /l, Soil: 1000pg/g

## B1-5

### A Study of Environmental Education Program on No-tillage Rice Farming

Masao AMANO

Lecturer of Konan Hospital Nursing College

2-11, Koyotyonaka Higashinadaku Kobe, Japan

The rate of food self-sufficiency is 40% on calorie basis in Japan. What's more, the wheat, soybean and sugar rely entirely on imports. But the rice production keeps 100% self-sufficient by the protection policy, because rice is the chief staple of the diet and is very important to the Japanese. But, in reality, few people know how to make rice. So, this paper is intended as an investigation of the environmental education program through no-tillage rice farming. We will learn about the Japanese endemic climate and the flora and fauna of the paddy field in this program.

#### 1. No-tillage Rice Farming

At the present time, we cultivate the ground again and again by tractor, and sprinkle agrichemicals (weed-killer, insecticide and disinfectant) on healthy rice farming. Here, for example, is a passage from the agricultural guidebook "Kokasyunzyu" in the Edo period (1707). In February, we put the muddy water in the paddy field, and then roughly cultivate the soil, crush the soil, and make a levee. Then, we cultivate the soil again, to dress additional fertilizer, plant rice, and weed greens (first time) in May. Then, we weed greens (second time), dress additional fertilizer again, and weed greens (third time) in June. In addition, at the present time, we disinfect the seed in April. And then, we sprinkle on insecticide, weed-killer and disinfectant, and we sprinkle on agrichemicals to avert a fall of the rice stalks in May and June. In other words, the standard farming needs a lot of fuel and agrichemicals in Japan. On the other hand, there is no need for fuel in no-tillage farming, which makes it an energy saving farming. Furthermore, no-tillage farming avoid the necessity for weeding greens because an underground seed of greens remains buried in the ground and it cannot germinat. In addition, the rice comes on strong by the application of stress when the root grows into the rigid soil. Moreover, the rice builds a tolerance to a garden pest, so there is no need to sprinkle on agrichemicals.

#### 2. Negative heritage by the agrichemicals

Famines of large scale because of garden pests happen again and again. The famine was an unsolvable problem in any country at the past. Under these circumstances, the human being had tried to discover ways of terminating the garden pest. One of the ways of disinfection in Japan was the event "mushioi" or "mushiokuri", that is, to move the garden pest by fire or to stifle by oil. In this way, they used whale oil, colza oil and so on. In addition, they used agrichemicals like bitterm (magnesium chloride), lime hydrate and so on. Afterward, they used oil like petroleum oil (kerosene oil), and the use of in the Meiji period. After that, the chemical synthesis agrichemicals (DDT, parathion etc.) did not become technically useful until the end of the 1940s. And then, the way of agriculture was dramatically changed. At the present time, the agrichemicals become a necessity for the breeding and growing plant. So, as a result of using the agrichemicals in high volume, negative heritage put an enormous load on us.



#### 3. The subject of this program

Under these circumstances in the rice farming, we may consider the subject of this program under the following heads: (1) to learn about the way of no-tillage rice farming; (2) to learn about the flora and fauna in the paddy field; (3) to think about the energy issues in the agriculture; (4) to think about the effect of the agrichemicals in farming and what is the safety food.

B1-6

**Environmental Learning Practice Based on a Kaleidoscope Model and Activities in Thailand**

**NAKAGOMI Kiyoshi      NAKAGOME Takuo**

**1. Institute of Natural and Cultural History, 1-48-8-208 Takinogawa Kita-ku, Tokyo, Japan**

**2. Institute of Natural and Cultural History, 3-28-2 Toyoda Hino-shi, Tokyo, Japan**

We have developed environmental learning activities in the farm villages near the mountainside in Chichibu Tama Kai National Park till now. We founded "an adventure school for children" as an open lecture of Tokyo Gakugei University in Akiruno-shi, Tokyo in 1988 and moved a focal point to Otaki-mura, Saitama in 1991. We have also practiced environmental learning afterwards in Kosuge-mura, Yamanashi since 2001. In Japanese school, teachers educate children by an administrative and uniform way and are apt to pack children with impracticable knowledge, take initiative and the independence of their will away, so the traditional wisdom based on a community was not handed down to them. As a matter of course we have practiced such activities. Particularly in traditional wisdom brought up among communities, there is much wisdom to harmonize with nature well and about nature itself. It is because most people need a direct experience to teach them that such wisdom is being lost rapidly now.

Our activities are to find such local traditional wisdom and to revive it as new wisdom aiming at symbiosis with human beings and nature. In such a practice, we have developed a general frame of an environmental education program called a kaleidoscope model; (by Kimata). This model is very effective associating each environmental learning program mutually and constituting a flow of flexible learning, so we can arrange contents of wide environmental learning and evaluate them and make them clear. Our main practices based on this model are as follows;

1: Environmental learning camp for children

\*Village festival camp

\*Adventure school

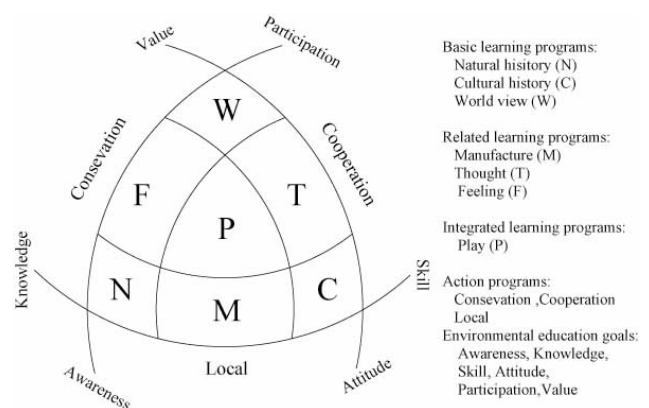
\*Winter camp

2: Environmental learning for adult

\*Mountain trail maintenance

\*cooking preserved food and native district appetite

\*Millet cultivation



In addition, we have been interested in nature and culture of other areas as well as those of Okinawa and Hokkaido including the culture of the Ainu race.

Therefore we have carried out an adventure school and investigation based on a way of thinking such as the above. Particularly since we formed a Thailand Japan nature club with the teachers of phranakhon Rajabhat University in Thailand in 1998, we have learned practices of environmental education and deepened interchange with each other. Together we developed learning teaching materials such as a puzzle and a sugoroku of hornbills, and mangrove cards.

Now we are planning a training lecture for the environmental learning leader called ELF (Environmental Learning Framework) based on conventional activity result, participating in the plan of the eco-museum named Japanese village in Kosuge-mura and pursuing the possibilities of area development of villages near the mountainside by an environmental education.

B2-1

**Management of Infectious Waste in Kasemrad Rattanatibeth  
General Hospital through Environmental Education Process**

**Natthakarn PALAKAWONG  
Phranakhon Rajabhat University**

This study is considered as the se-mi experimental research, aiming at proper management screening type and kind, determining quantities, sorting, and recommending the appropriate management guidelines for infectious waste of Kasemrad Rattanatibeth General Hospital. The study has been immersed in its environmental education process for nursing personnel by providing them the appropriate training manual. The target group is comprised of 30 people both from registered nurses and their assistants at the mentioned hospital. The assessment features have been performed in the particular factor concerning with understanding, skills, and attitude, towards the infectious waste by providing all of them both PRE and POST test questionnaires. Training has been conducted by using the training manual, developed by researcher. Evaluation on behavior in managing of the infectious waste has been done afterwards. It is revealed that the hypodermic-syringes, blade and grasses are the highest quantity among all infectious waste of Kasemrad Rattanatibeth Hospital (38.64%), plastic and gloves are next highest quantity (34.27%), then cotton clothes, bandages, cottons (20.8%), human tissues (5.4%), and paper in the least one (0.63%). The average amount of the infectious waste, occurred each day is 77.9 kilograms. The Admitted Patient Wards produced the infectious wastes approximately at 0.05 kilograms/day/person. The Non-admitted Patient Wards produced the infectious waste approximately 0.45 kilograms/day/bed.

It is also indicated that nursing personnel who passed the training program on environmental education entitled “the management of infectious waste in the hospital” are getting better understanding and convincing in its process. They gained the actual and practical knowledge and skill statistically with their attitude in the range of 0.5. Following the 1 month, post-training evaluation, it implies that the target groups’ behavior has improved on the proper infections waste management gradually.

## B2-2

### ENVIRONMENTAL EDUCATION AT JAPANESE COMPANIES

**Yoshitake ISHIGAMI**  
**Osaka University of Commerce**  
**4-1-10 Mikiriyasakaemati, Higashiosaka, Japan**

#### **I. Introduction**

As you know, last February the Kyoto Protocol which was obliged to reduce carbon dioxide emissions in advanced nation took effect. The obligation to reduce carbon dioxide emissions in Japan is 6% by comparison with 1990, taking an average from 2008 to 2012. We think that as soon as companies gets over the critical situation after bursting of the bubble economy we confront with the difficult economical subject to survive.

Already Fritjof Capra and Gunter Pauli point out that “We believe that if the corporate world does not play an active role in redefining its own operations, moving toward sustainability, the world as a whole will never succeed in that task” (Steering Business Toward Sustainability, 1995). We think that the most important point of environmental problem should be coped with environmental problem and environmental education by companies.

#### **II. The present condition of working on environmental education in Japanese company**

According to “The survey of nature-friendly business behavior in 2004 year” by the Ministry of the Environment, Japan, the percentage of “regularly working on environmental education” for employers at the company is 53.5%, and the percentage of “irregularly working on environmental education” is 26.0%, accordingly the total of these is 79.5%. The various way of environmental education in Japanese company is practiced, studies for nature experience and e-learning program etc.

Although Japanese companies practice environmental education, it is not enough.

#### **III. The limitations and possibility of environmental education in Japanese company**

Prof. Hironobu Nakamaru, Konan University, points out three issues for environmental education at the companies; training employees, contents of environmental education, necessity of environmental education. According to Prof. Fumiaki Taniguchi, Konan University, proposes that the environment is classified into three kinds of nature, society and mind. Polluted mind environment destroys “exterior environment” such as natural environment and social environment. Therefore, it is most important to educate to improve “interior environment” of mind

Moreover he points out that environmental education is a sort of education in value judgment, that is to say it is education of selection of multiple values, to think what value to live, select an essential value, acquire an ability to solve a problem.

It is essential for environmental education in company to create knowledge, and conquer all difficulties, formulate a new direction for companies.

#### **IV. Case Study of SEIKO EPON CORPORATION**

We introduce SEIKO EPON CORPORATION working on environmental problem and education as a progressive case. It has existed powerful leadership in an executive as management idea.

B2-3

**Environmental Protection from the Perspective of Convention on Biological Diversity (CBD): With Reference to Access to Benefit Sharing (ABS) of Biological Resources**

**Manoj L. SHRESTHA**  
**Professor**  
**Konan University**

In this presentation the speaker will attempt to focus on the spirit of Convention on Biological Diversity (CBD) for environmental protection and sustainable development. The convention emphasizes every country's sovereign right to exploit their own biological resources pursuant to their environmental policies, as well as responsibility to conserve their biodiversity and use their biological resources in a sustainable fashion. It also ensures that every country should make sure activities within their jurisdiction or control do not cause damage to the biodiversity of other states or of areas beyond the limits of national jurisdiction.

The speaker will highlight the following points:

- (1) CBD and Protection of Biological Resources
- (2) Sovereign Rights of States over their Natural Resources
- (3) Traditional Knowledge and Indigenous Community
- (4) Protection of Folklore
- (5) Indigenous Community's Proprietary Knowledge and its Protection



B2-4

## **Morality Deteriorating Environment**

**Paisal SURİYAWONGPAISAL**  
**Advisor**  
**PTT Public Co. limited, THAILAND**

When we address environmental degradation, we focus mainly on physical damages such as the green-house effect, air, sound or water pollutants. Today, I would like to draw your attention to the damage affecting human morality or pollution within ourselves as we are emphasizing material progress and cherishing material gain. Unknowingly, we become enslaved by our own creation. For example, we uphold money or materials more than our relationships. A son or daughter can kill his or her parents for money or a car or a house etc. People will not be reluctant to do wrong if he or she can gain some benefit over others. We advocate rule of laws instead of rule of ethics which is beyond laws. Yes, we do need laws in our society. However, laws have a lot of loopholes and they can be manipulated for the benefit of some people such the rich, the powerful or the knowledgeable. For example, our PM can manipulate the law for his own or his family's benefit since he has knowledgeable lawyers as his advisors. Certainly, his deed is considered right according to the laws but totally wrong if ethical measure is applied. There are plenty of examples of people who exploit the laws for their own gains. They don't uphold morality because they have none. In their minds, they value only money or material interests. They don't know the meaning of enough because their morality degraded.

Nowadays, the majority of people around the world advocate money or material gains instead of morality or righteousness. In the global scope, the United States of America is the world's number one polluter. It refused to accept the Kyoto convention since it fears that it may lose its material benefit or GDP growth. It also invaded and occupied Iraq in order to gain access to Iraqi petroleum resources. Certainly, its leaders raised fault excuses in their invasion maneuvering.

Or the Communist regime in China which kills and suppresses its own citizens who practice Falun Gong or Falun Dafa. Its leader Jiang Zeming fears that he and the Communist party may lose its political control since he loves power more than his own people. He will do everything to sustain his authority regardless of morality.

In conclusion, the pollution within ourselves is the root cause of physical pollutions that we try to address. If we can clear our own pollution or pollution inside ourselves, I strongly believe that we will be able to clean or solve all the pollution problems we are facing today ,since all pollutions are the creation of human beings.

We have to start by digging back and studying our past heritages such as Lord Buddha, Lao Zi or Confucius teachings, since their teaching focus on self-satisfaction or knowing ourselves. Our king presents the sufficiency economy or he tries to tell us to learn the meaning of enough. And we should pay less attention to the development of technology since it does more harm than good. For example, automobile and petroleum technologies introduce green-house effect to the world, not to mention other related pollution problems.

Or, at least, we have to set the balance between mind and body since we are losing our balance in favor of physical or material gains. We encourage people to compete to consume and accumulate material possessions, therefore, our morality declines. We fail even to classify between good and bad.

If we continue to lose our balance in this direction, material over morality, I believe the whole world will head to doom day in the very near future. Just imagine, if China and India, the world's most populous nations, consume and accumulate wealth like the USA. The green house effect will come much sooner than we had predicted, not to mention the other ecological impacts.

We have no choice but to revise our moral values as soon as possible. Perhaps, the sufficiency economy proposed by our king may be a start of the answer. We must learn to understand the meaning of enough so that we can survive longer. We need GDH (Gross Domestic Happiness) not GDP (Gross Domestic Product) in our economic measurement. Or, in other words, we must value human happiness not product, material gain or prosperity.

## B2-5 Student Meeting

### **Toward Realization of Sound Material-Cycle Campus at Konan University**

**Shin SHIMIZU<sup>1</sup> Erina USUI<sup>2</sup> Mamiko KAMAE<sup>2</sup> Mami MAEGAWA<sup>2</sup>**

<sup>1</sup>Senior, Department of Human Sciences, Faculty of Letters, Konan

<sup>2</sup>Junior, Department of Human Sciences, Faculty of Letters, Konan

8-9-1 Okamoto, Higashinada-ku, Kobe, Hyogo 658-8501, JAPAN

#### **I. Introduction**

- (1) Student meetings between Japan and China
- (2) Student meetings between Japan and Thailand
- (3) Support of International Conferences

#### **II. Activities for Creation of Sustainable Campus at Konan University**

- (1) Promotion of 4R at our campus
- (2) Planting flowers
- (3) Support of environmental symposiums for enlightenment at Konan University

#### **III. Activities in the Field**

- (1) Activity of organic agriculture at Hirono Campus in Konan University
- (2) Research for deformed monkey at Awaji Monkey Center
- (3) Volunteer activities in Aina National Government Park in Kobe

#### **IV. Main Activities in 2006**

- (1) Experience of self-sufficient life at Hirono Campus in Konan University
- (2) KEMS's Certification of Kobe City
- (3) Support of the class "International Network for Environmental Education" by TV-net meeting system

## B2-6

### **Community Practice: Knowledge Management in a Community Environment Model of Waste Reduction and Separation**

**Dr. Jittree Pothimamaka  
Phranakhon Rajabhat University**

## **Poster Presentations**

**INVESTIGATE THE ACTUAL SITUATION OF INTEGRATIVE MEDICINE IN JAPAN**

**Yoshihiro INADA**

**Waseda University**

2-579-15, Mikajima, Tokorozawa-shi, Saitama, 359-1192, Japan

It would not be too much to say that a history of integrated care in Japan is that of medical science and medical care. I have been involved in this field as a teacher in an acupuncture training institution for 20 years. Having researched the realities of integrated care in Japan, which has been rapidly changing, I have found very interesting results to be reported hereinafter.

It has been quite a long time since stress on funds of health insurance, due to escalating medical expense, is asserted in contemporary Japan. Integrated care ( alternative healthcare ) attracts a great attention as a measure.

Regarding the four types of licenses, “Rubber, massage, acupressure,” “Acupuncture,” “Cautery,” “Judo Therapy,” not only they have been established as national qualifications, and given a guaranteed legal status after the World War II but also a significant number of qualified persons operate private medical centers as they have been given the right to practice independently. However, the fact is that, based on the limited training period ( three years ) they are clearly distinguished from general healthcare professionals ( doctors, or dentist, and etc.) and also a line is drawn between other comedical staffs.

In Japan, fluctuation in the number of qualified persons of the four types of qualifications every fiscal year is evaluated, variations in the number of medical centers in age is tracked and compared with those of general medical institutions. Here, the study of the transition of the training facilities for obtaining these four types of qualifications, the number of which is rapidly increasing in last several years, is added.

As these results show and I herein report, in current condition, these practices themselves by the qualified persons of these four types are making a significant impact on the control of medical expenses in Japan.

Understanding and the necessity of integrated care in developed countries is increasing year by year. In the United States, it is well known that, since the National Institute of Health ( NIH ) started a research laboratory of the alternative care in 1992, they are expected as remedies for the reduction of medical expenses. Medical expense accounts for 14% of GNP in U.S. and the ratio continues to increase. Cutting edge medical equipments is continuously developed, which lead to a vicious cycle, and much higher rise in expense. Comparing compatibilities between occupations in foreign countries which consist integrated care and the current situation in Japan, the study of compatibility and comparison is added. Moreover, comparing them by laws and regulations in foreign countries, I evaluated the comparison between limits on training periods and curricula.

## The Characteristics of the Spousal Obligation to Care for One Another

Yuko HARASAWA<sup>1</sup>, Katsuhide KAWAMOTO<sup>2</sup>, Eri IJIMA<sup>3</sup>, Masasige SAITO<sup>4</sup>,  
Yuko KURAMOCHI, Masami HASEBE<sup>5</sup>

1. Aichi Prefectural College of Nursing & Health

Tougoke, Kamishidami, Moriyama-ku, Nagoya, 463-8502, Japan

2. Saitama University.

3. National Women's Education Center

4. Doctoral Program in Sociology, Sophia University

5. Graduate School of Education (Master's Program), Saitama University

**PURPOSE:** The purpose of this study was to evaluate the obligation to provide care by family members and to examine the successful psychological adjustment to providing continual care. In this report, we focused on the characteristics of the spousal obligation to care for one another among family caregivers.

**METHOD:** Data were collected from 559 Japanese family caregivers in charge of a frail person requiring care in 2004. Data on 305 subjects were returned (rate of collection=54.6%). In this study we used data on 252 (45.1%) subjects in which at least half of the measured items were present. We asked 25 questions regarding the spousal obligation to care for one another, which were constructed based on 3 subcategories (economic care, physical care, and mental care). The data were grouped by the relationship between the frail person and their family caregivers (those caring for parents or parents-in-law [CCP] and spouse caregivers [SC]), and analyzed separately. We used the Student's t-test to analyze the data, using SPSSver.14.0J for Windows.

### RESULTS/DISCUSSION:

< Data Attribute >

	CCP(N=177)	SC(N=63)	others(N=12)
sex			
male	35(19.7%)	26(41.3%)	—
female	142(80.3%)	37(58.7%)	—
average age	54.8(SD=±12)	72.7(SD=±7.5)	—
frail person's average age	84.5(SD=±8.3)	74.7(SD=±8.0)	—

< The Characteristics of the Spousal Obligation to Care for One Another >

1. There was a statistically significant difference in gender. Men showed a tendency to engage in caring duties and support their partner because they think spousal care would be peaceful for each other. In the situation of caregiving, men tended to think that "the couple should hold out by caring for each other". On the other hand, women tended to think "it would be better to rely on their children". The spousal obligation of men was stronger than that of women. On the other hand, men stated that their reason for caregiving was not their positive intentions but rather an obligation to the relationship. Furthermore, men tended towards actions that suppressed the frail person.
2. There was a statistically significant difference between the CCP and SC groups. The SC group scored high on all 3 subscales (economic care, physical care, and mental care). Furthermore, the SC group engaged in fewer actions that suppressed the frail person.
3. There was a statistically significant difference between women who cared for their partner and those who cared for a non-partner. Women who cared for their partner stated they have peace of mind by living with their frail spouse. Furthermore, women who cared for their partner tended to be less likely to: 1) leave the frail person alone, 2) delay the frail person's meal, or 3) cut the frail person's conversation short.

**CONCLUSION:** The characteristics of the obligation to care for each other among family caregivers differed by gender and relationship with the caregiver.

**COMMUNITY-BASED HEALTH CARE FOR MENOPAUSAL WOMEN:  
A COMPARISON OF NEEDS IN RURAL COMMUNITY AND  
IN URBAN COMMUNITY**

**SHIMA, Akiko<sup>1</sup>      TAKANAMI, Sumiko<sup>1</sup>      KAWAHARADA, Mariko<sup>1</sup>**

**1. Department of health Science, School of medicine**

**Hokkaido University, N-12, W-5, Kita-ku, Sapporo, 060-0812, Japan**

**OBJECTIVE:** Menopausal symptoms develop being influenced by cultural and social factors. Therefore it has become necessary to provide women of menopause with health care services based on communities. The purpose of this study is to identify women's needs in rural community and urban community through a comparison of the two communities and to propose health care services satisfying their needs.

**METHODS:** Self-administered questionnaire survey. Subjects; 1100 women of forty years and over who lived in rural communities and in urban communities, Japan. Term; December, 2004-March, 2005. Contents of Questionnaire; we used simple Formula Menopause Index (SMI) to identify menopausal symptoms, SF8 to see QOL, and questionnaire consisted of 42 items made by us from focus group interviews to identify needs for health care services. T-test analysis was conducted to examine differences between the two communities in SMI, SF8, and the 42 items.

**RESULTS:** Of the 1100 women, 595 responded (response rate-54.1%). Among these, the data from 270 respondents aged 45-55 were analyzed. Two hundreds respondents lived in rural communities and 70 lived in urban communities. Job rate was 97.1% in rural communities, of these, 83.5% engaged in agriculture; 70.8% in urban communities, 54.0% in service industry. The rate of three families living together was 75.1% in rural communities and 16.7% in urban communities.

Menopausal symptoms: the rate of SMI scored severe level for medical treatment was 29.8 % in rural communities and 23.7% in urban communities.

QOL: no significant differences were found between the two.

Needs: significant differences between the two were identified in the following 4 items.

Want to know "what menopausal symptoms are", "where I can consult with", and "how to consult with" and "want to consult with not being known to families". In rural communities, "want to know what menopausal symptoms are" and "want to consult with not being known to families" were high significantly compared with urban communities. In urban communities, "want to know where I can consult with" and "want to know how to consult with". No differences were identified between the two, but respondents wanted to know their own condition, or to what degree menopausal symptoms are.

**CONCLUSION:** In rural communities, there were tendencies that menopausal symptoms were deteriorating, while respondents needed general information. From this, support system should be needed for rural women to recognize their own menopausal symptoms considering their job or family structure. In urban communities, respondents had strong needs for where and how they consult with. This suggests that health services system should be established for women to access easily to social resources according to their own needs.

**THE RELATIONSHIP BETWEEN THE NARCISSISTIC PERSONALITY TENDENCY AND PERFECTIONISM IN JAPANESE UNIVERSITY STUDENTS**

**Yamazaki, Kumiko<sup>1</sup>      Lin, Crystal<sup>2</sup>**

**1. Faculty of Human Sciences, Waseda University**

2-579-15 Mikajima Tokorozawa, Saitama 359-1192, Japan

**2. Graduate School of Human Sciences, Waseda University**

2-579-15 Mikajima Tokorozawa, Saitama 359-1192, Japan

**PURPOSE:** Due to the recent increase in numbers of adolescent patients with Narcissistic Personality (NP) Disorder in the clinical setting, it can be assumed that generally, there are a number of university students with NP tendency. In this research, we evaluated NP tendency in university students and performed factor analysis again as we carefully paid attention to the clinical findings of NPD. Based on the hypothesis that individuals with high NP tendency also have a strong tendency for perfectionism to maintain their own narcissism, the relationships between each factor were examined.

**SUBJECTS:** The subjects were 265 university students (135 males and 130 females) who have approved the concept of this study and agreed to cooperate; their mean age was 20.22 (*SD* 1.40).

**METHOD:** The scales used were the Narcissistic Personality Inventory Short Version (NPI-S) (Oshio, 1988), which contains 3 subscales - “a sense of superiority and competence (SC)”, “need for attention and praise (AP)”, and “self-assertiveness (SA)”—and the Japanese version of Multidimensional Perfectionism Scale (MPS), which comprises 4 factors - “desire for perfectionism (DP)”, “personal standard (PS)”, “concern over mistakes (CM)”, and “doubting of actions (D)” (Sakurai & Otani, 1996). The former has 30 determining factors whereas the latter has 20.

**RESULTS and DISCUSSION:** 1) Of the mean total NPI-S score of 93.73 (*SD* 16.24), the mean score for males was 96.38 (*SD* 14.68) and that of female was 90.98 (*SD* 17.34). This result was the same as previous research: the male was significantly higher. Considering that the mean in Oshio’s study (1997) was 87.39, the NP tendency in adult male has been increasing in these years. 2) When the relationship between NPI-S and MPS was studied, a positive correlation was found ( $r = .490, p < .001$ ). Additionally, a moderate positive correlation was found between total NPI-S and DP ( $r = .485, p < .001$ ), and weak positive correlations between total NPI-S and CM ( $r = .215, p < .001$ ) as well as total NPI-S and D ( $r = .233, p < .001$ ) were found. 3) 4 factors were extracted when factor analysis was conducted, and taking consideration of clinical validity, each factor was named as “a need for excessive admiration and attention”, “grandiosity”, “lack of empathy”, and “a sense of special-ness”. These 4 factors support the DSM-IV diagnostic indication, and also reveal a significant positive correlation between DP and PS within MPS.

**CONCLUSION:** Perfectionism is closely related to NPD; therefore, determining factors that measure an individual’s perfectionism or the desire to be perfect should be added to the scale which evaluates one’s NP tendency. Based on the results, it would be easier to spot a group of people who have a higher possibility to become NPD in youths.

**A STUDY OF THE FACTORS AFFECTING THE END-OF-LIFE CARE  
BY CARE WORKERS IN NURSING HOME**

**Chikamori, Eiko<sup>1</sup>    Ishii, Kyoko<sup>1</sup>    Yoko, Maki<sup>2</sup>    Nomura, Kazuko<sup>3</sup>**

**1 Osaka City University School of Nursing**

1-5-17 Asahimachi, Abeno-ku, Osaka city, 545-0051, Japan

**2 Nihon Fukushi University**

Okuda, Mihama-cho, Tita-gun, Aichi prefecture, 470-3295, Japan

**3 Junior college of Osaka University of health and sports**

1-1 Asadai, Kumatori-cho, Sennan-gun, Osaka prefecture, 590-0459, Japan

**Introduction:** The number of nursing homes has been steadily increasing in Japan. In nursing homes, residences are with advanced dementia, and/or with physiological disorder. Naturally their decline is progressive. However there are no guidelines that can be applied to the end-of-life care for the elderly, especially in nursing homes. In consideration of life and death in a nursing home, it is important how care workers can provide optimal care to the end-of-life.

The purposes of this study were to clarify what philosophy of life and death care workers have. Furthermore what care activities for dying elderly are provided by care workers, as well as to analyze the factors affecting the end-of-life care activities.

**Method:** We conducted a survey, with a self-evaluating questionnaire, which was handed to 250 care workers in a special nursing home. The questionnaire included 22 questions which were concerning the end-of-life care, and 60 questions which were concerning the philosophy of life and death.

**Results:** The exploratory factor analysis about “end-of-life care” revealed three underlying factors, which we labeled “improve quality of life (QOL)”, “family support”, and “support to help residents come to terms with their own death”. The exploratory factor analysis about “philosophy of life and death” revealed six underlying factors, which we labeled “positive thinking of death”, “anxiety concerning death”, “physical and spiritual death”, “thoughts concerning the corpse”, “the meaning of death”, and “life beyond death”.

The care workers who had on-the-job training concerning death were significantly more apt to give “family support”, and “support to help residents come to terms with their own death”. The degree of “improving QOL”, and “family support” were significantly larger those who had the experience to giving end-of-life care. This study shows that care workers whose level of anxiety concerning death was low, and to much acceptance of physical death is end of life, more often provided family care activities.



**THE CHARACTERISTICS OF THE PROCESS TO ACQUIRE  
THE SKILL OF ENDOTRACHEAL SUCTIONING IN EXPERT NURSES:  
NARRATIVE OF CLINICAL ENGINEERS OF RESPIRATORY THERAPY**

**Yasumori Yumi**<sup>1</sup>      **Nakaoka Akiko**<sup>2</sup>      **Maeda Yuko**<sup>2</sup>

**1. Hirosaki University**

66-1 Hon-cho, hirosaki-city, Aomori, 036-8564, Japan

**2. Osaka City University**

15- Asahi-cho, Abeno-ku, Osaka, 545-0051

**Purpose**

The practice of endotracheal suctioning is a technology accompanied with pain, and the quality of caring is clear in the patient, according to the skill.

We reported the characteristics of experience of six expert nurses. The purpose of this study is to clarify the acquisition process of gaining the skill of endotracheal suctioning.

**Sample**

Six expert nurses, who were recommended by their head nurses, have at least 5 years of clinical experience, and they agreed with research cooperation.

They were clinical engineers of respiratory therapy.

**Method**

We interviewed, and recorded, how the suction had been acquired and how it had worked. Finally, we labeled the content of their narrative.

**Ethics**

When we (the researchers) explained complete debriefing and strict management of the data, we obtained the research cooperators' approval by documentation.

This research obtained the approval of the ethical committee of Osaka City University School of Nursing

**Findings**

There are six characteristics.

1. (There were frequent opportunities to gain experience with apparatus.)

2. (Practice experience compared with basic knowledge.)

3. (Experience of care in the case of a patient who has difficulty with the suction trial and error.)

We think that the expert nurse improves by acquiring skill in use of technology while reflecting on the experience of quality and the amount, and taking into consideration the assessment and the technology.

4. (It is considered that it is also important to have a challenging experience, as well as gaining sensitivity toward the patient.)

5. (Sensitivity toward ethical difficulties and personal opinions)

6. (Various teaching methods)

It has been understood that the expert nurses value sensitivity toward the patient, nursing care ethics, and is make up the effort to communicate this with other staff.

**ASSOCIATION OF WORKLOAD PERCEPTION WITH ACUTE STRESS  
REACTIONS AND JOB STRESSORS**

**KAWAHARADA, Mariko<sup>1</sup>      SHIMA, Akiko<sup>1</sup>      UEDA, Izumi<sup>1</sup>**

**1. Hokkaido University**

**N-12, W-5, Kita-ku, Sapporo, 060-0812, Japan**

**OBJECTIVE**

In the recent years, mental health of workers has become a vital issue. The purpose of this study is to identify the association of workload perception with acute stress reactions and job stressors .

**METHODS**

The subjects were 434 employees working for 9 enterprises in Hokkaido that had occupational health nurses. A self-administered questionnaire on workload perception, overtime work, and irregular working hours was mailed to the subjects in December, 2004. 347 responses were returned (response rate-80.0%). 327 valid responses (239 men; 88 women) were analyzed.

Acute stress reactions and job stressors were measured using the Japanese Version of the NIOSH General Job Stress Questionnaire. Depression, job satisfaction, and somatic complaints scales were used to measure acute reactions. Quantitative workload, cognitive demands, and intragroup conflict scales were used to measure job stressors. T-test was used to analyze differences between workload perception and the average scores for the acute stress reaction scales and job stressor scales. All analyses were performed using SPSS12. for Windows.

**RESULTS**

55.6% of men and 48.3% of women felt their mental workload to be heavy. However, only 10.9% of men and 4.5% of women felt their physical workload to be heavy. This difference could have resulted from the respondents' occupational categories, 53.5% being clerical workers, 24.5% - professionals and technicians, 11.3% - managers, and 10.7% belonging to other occupational categories. 39.1% of men and 27.3% of women reported excessive monthly overtime work. 29.4% of men and 11.4% of women reported numerous irregular working hours.

Mental workload perception had a significant difference with depression, somatic complaints and job satisfaction in men, and a significant difference with depression in women. These results suggest that employees, and especially men, who feel their mental workload to be heavy are likely to develop various acute stress reactions. In both men and women mental workload perception had significant differences with quantitative workload and cognitive demands. Physical workload perception had significant differences with quantitative workload and intragroup conflict in men, but no significant difference in women.

Excessive monthly overtime work. had significant differences with quantitative workload and cognitive demands in both men and women. Irregular working hours had significant differences with quantitative workload, cognitive demands, and job satisfaction in men, and with somatic complaints in women, thus indicating gender differences.

**CONCLUSION**

This study identified the association of mental workload perception with acute stress reactions and job stressors. As an issue that can be discussed easily and openly, workload perception provides important information on employees' mental health and should be used in developing measures for prevention and treatment of mental health problems.

**AWARENESS OF NURSE STUDENTS ON “RELAXATION AND TOUCH”:  
CONCERNING “TOUCH ONESELF”**

**Yamasaki, Yumiko<sup>1</sup> Sato, Tsuyako<sup>2</sup>**

**1. Sonoda Women’s University**

7-29-1 Minamitsukaguchi-cho, Amagasaki 661-8520, Japan

**2. Yamanashi University**

4-4-37 Takeda, Kofu 400-8510, Japan

**Introduction** In Japan, the medical treatment has progressed, but the humanistic nursing care has become more difficult. In this regard, we developed and conducted the touch-education program (TEP) at fundamental nursing domain, from the first year to the third year (2001, 4<sup>th</sup> ICHBS). In this study, during 5 years, we examined the nurse students' recorded papers regarding “touch oneself” in “Relaxation and Touch (R & T)”, using content analysis. The purpose of this study was to know the meanings of this exercise as well as their feelings and thought about touch.

**Subjects** Among 403 nurse students enrolled in nursing college (3-year course); 380 (94.3%) students attended this exercise over 5 years (76 students in the school year 1998, 76 in 1999, 79 in 2000, 72 in 2002, and 77 in 2003).

**Methods** “R & T” was developed and revised from the exercise BMAP by Yamasaki et al. in 1998. “R & T”, a part of a unit named “Sleep, Rest, Activity”, was executed in the required subject of the fundamental nursing. “R & T” consisted of three parts; namely, relaxation called Yurumi by imagery, touch oneself, and touch each other. The class time was 90 minutes. During the exercise, the students recorded their own experience on a recording paper. After the exercise, we classified the contents from the sentences concerning touch oneself, and we gave each item a title. We analyzed the records' contents written by the students who were informed and gave their consent for participation in this class which did not influence their grade and they could participate at any time.

**Results and Discussion** The mean character number for each person was 37.4. The mean word number for each person was 1.77. The numbers of small category for each year were 45 in the maximum year (the third year), and 29 in the minimum year (the second year). There were three large categories; namely, “awareness of relaxation”, “awareness of other changes of feelings”, and “awareness of no relaxation” for every year. The category, “awareness of relaxation”, had the largest words for every year. The largest proportion was 85.4%, and the least was 70.0%. Its subcategory numbers were also the largest for all years. The subcategories in “awareness of relaxation” were well related about “warmly”, such as “warm and peace of mind” or “warmly and presence of mind”. The feelings were explained not only by the body feelings of temperature but also by the good feeling or presence of mind. There were some subcategories suggested as altered-state, such as “another world” or “the state of nothingness”.

From these results, we considered that touch oneself in TEP was useful for nurse students who need to think about the meanings and values of touch.

## **P-9**

### **A DEVELOPMENT OF SAFETY TRAINING PROGRAM FOR STAFFS ARE WORKING IN GROUND MAINTENANCE WORKSHOP THAI AIRWAYS INTERNATIONAL PUBLIC COMPANY LIMITED**

**Sanpong BOONROD  
Phranakhon Rajabhat University**

This research has objectives to study the data effecting to the management of safety staff which working in ground maintenance workshop and analyses the results to development the Safety Training Program for staff which was working in ground maintenance workshop by the environmental education process. For the strengthen knowledge, understanding, skills, awareness, and to has a good attitude in management of safety. The results was following:

From the environmental surveys in term of temperature, intensity, and the sound level inside the 3 ground maintenance workshop and the data survey by the 140 peoples of the sampling groups staff using the questionnaires found the sampling groups has knowledge, understanding, and skills of safety in the middle levels. There has the awareness, the attitude in management of safety in a middle level.

The results from Safety Training Program for staff in management of safety by using the environmental education process which the sampling groups staff has 32 peoples found the passing safety training program staff has knowledge, understanding, skills of safety, awareness and the attitude in management of safety which has a high average than before training program.

**THE USE OF ENVIRONMENTAL EDUCATION IN THE PREVENTION  
OF HUMAN CONTAMINATION**

**Adisak TEERAKAEW  
Phranakhon Rajabhat University**

The purpose of this research was to find out how much lead deposition on leaves around the heavy traffic area at Pitak ratthamnoon Monument. In Bangkok, after the promotion of unlead oil for vehicles in 1991, Lead was analyzed by using atomic absorption spectrophotometer (AA) to measure the concentration. The amount of lead on leaves was associated with the level of sampling height.

In this research, the leaves were samples at different height level i.e., <1.0 m and 1 to 2 m. The analytical results showed the minimum amount of lead on leaves were 0.332 ppm / 100 cm<sup>2</sup> at <1.0 m. and the maximum average value were 0.658 ppm/100 cm<sup>2</sup> at 1 to 2 m.

The result of the training indicated that the students, who have been trained through the developed environmental education practice, gain their awareness, knowledge, skills and attitudes towards the prevention of human contamination from hazardous heavy metals problem at statistical significance of 0.05 level.

## **A STUDY ON GROWTH OF ORNAMENTAL PLANTS USING COMPOST**

**Anuchar SATHIDPONG**  
**Phranakhon Rajabhat University**

The purpose of this research was to compare the growth of ornamental plants by using chemical fertilizer and mixed fertilizer (compost and chemical fertilizer) through compost mixed formula 1, 2 and 3. The experiment was set according to the Completely Randomized Design (CRD). The average or difference of treatment variable was compared by using Duncan's New Multiple Range Test (DMRT). The handbook and the related training on compost use was produced and given to twenty - five gardeners and employees of DhuraKijpundit University by means of environmental educational process.

The results of this study revealed that having planted Marigold and Davalliaceae for seventy - five and eighty days, compost mixed formula 1 helped Marigold to germinate average branches and flowers of 7.9 and 7.5 respectively. Compost mixed formula 2 helped Morigold to germinate average branches and flowers of 6.8 and 6.8, whereas compost mixed formula 3 helped Morigold to germinate average branches and flowers of 6.5 and 6.5 respectively, However, the difference numbers of those experiment plants showed no statistical significant difference at 0.05 level. Regarding to the chemical fertilizer, the side fertilizer. helped Morigold to germinate average branches and flowers of 8.0 and 7.5 respectively. It, therefore, was concluded that the compost mixed formula 1, 2, 3 and chemical fertilized produced a number of branches and flowers distinctively. However, having compared statically , it was revealed that there was no statistical significant difference at 0.05 level for the growth of Morigold that used the compost mixed formula 1 with chemical fertilizer and used only chemical fertilizer . the Finally, it should be pointed not herein that average numbers of the branches and flowers produced through the set experiments met the standards of the Department of the Agricultural extension.

From the result of planting Davalliaceae for eighty days, it was found that the compost mixed formula 1, 2, 3 and chemical fertilized affected the increment in terms of the numbers of branches, 32, 40 and 35 respectively. The compost mixed formula 3 produced 40 branches of the plant, but produced 35 branches if the chemical fertilized was used. However having compared statistically, it was found that there was no statistical significant difference at 0.05 level for Davalliaceae using the compost mixed formula 3 with chemical fertilizer and using only the chemical fertilizer.

Regarding to the evaluation result of the trained gardeners and employees using the developed training handbook made through pre-test and post-test, it was founded that the gardeners and employees, at passed the training course on the use of compost according to environmental educational process, developed their know ledge, understanding, skills and attitude as well as awareness of the use of chemical fertilizer and compost with a statistical significance of 0.05 level.

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**Executive Committee  
Secretariat of ICHBS**

c/o Taniguchi Office, Faculty of Letters,  
Konan University, 8-9-1 Okamoto,  
Higashinada-ku, Kobe 658-8501 Japan  
TEL/FAX+81-78-435-2368  
E-mail:fumiaki@konan-u.ac.jp  
<http://www.nk.rim.or.jp/~fumiaki/>



**Japan Academy for Health  
Behavioral Science**

2-6-18-501 Hachiman, Ichikawa  
City, Chiba 272-0021 Japan  
TEL:+81-47-332-0726  
FAX:+81-47-332-5631  
<http://homepage1.nifty.com/jahbs/>