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◆ **Purpose**

This study, part of larger action research project to deal with post-nuclear accident public health challenges, reports a multidisciplinary approach to promote a practical radiation culture in a model community in Fukushima Prefecture.

◆ **Background**

1.The Fukushima recovery phase started early 2012:

- ▶ Dec 2011: announcement of the stabilization of the reactors
- ▶ Jan 2012: launching of the decontamination program
- ▶ April 2012: 1) new regulation on contaminated food products
 2) rearrangement of restricted areas

Our research field (40 km from reactor)



- ▶ Population: 330,000
- ▶ Radiation: getting back to normal level
- ▶ No evacuation order
- ▶ Voluntary evacuation 7,000

2. People's reactions:

Nearly 4 years after the Fukushima accident, many persons living in the accident-affected communities in Fukushima continue to follow an unhealthy and unnecessarily protective lifestyle due to fears about radiation, although radiation levels in their communities have been confirmed to be safe.

3.Public Health Nurses' concerns/experiences

- ▶ The residents' radiation fear & unhealthy lifestyle related to this fear
- ▶ Residents' health problems such as children's obesity due to the parents' misconception that outside is contaminated
- ▶ Difficulty teaching people due to the nurses' lack of practical knowledge about radiation
- ▶ Nurses' loss of confidence in work, stress, and exhaustion

4.Lessons from the Chernobyl, ICRP 2007

- ▶ Living in a contaminated environment is a complex situation affecting all dimensions of daily life
- ▶ The situation cannot be managed without the direct involvement of the local professionals and affected people
- ▶ The role of professionals in charge of the public health and education is essential for the dissemination of a practical radiation culture in the community
- ▶ The establishment of places for dialogue is essential for the dissemination of information

(International Commission on Radiological Protection (2007): ICRP publication 111)

Practical radiation protection culture, the key concept:

Knowledge and skills enabling each citizen to make choices and behave wisely in the low level contaminated environment

◆ **Method**

Step1: Dialogues with the city's Public Health Nurses(PHNs) through radiation teaching sessions

Step2: Dialogues with the residents:

- ▶ PHNs developed radiation teaching sessions as part of their routine health programs for the community's specific target populations: elderly persons, mothers of young children, persons with psychiatric problems.
- ▶ Working with the PHNs, researchers gave face-to-face interactional lectures to the targeted resident group that addressed issues in their daily life such as eating, drinking and outdoor activities in combination with the provision of updated radiation monitoring data related to those activities.

Radiation teaching sessions for public health nurses



- ▶ Session on Sundays
- ▶ Nurses came to session saying "radiation knowledge is essential for our work"
- ▶ Through these interactions, a valuable collegueship was developed between the nurses and researchers towards the next step: dialogue with the residents

Program for the elderly



Tap water? Bottled water? -People's heavy reliance on bottled water-

- ▶ Tap water: strictly regulated on >50 items, standards very severe
- ▶ Bottled water: less strict, 18 items, standards looser

	Tap water	Bottled water
Radioactivity	10 Bq/kg	100 Bq/kg, food
For baby	Much better, soft water	Less good, hard water
Inspection	Daily	None, after bottled
Bacteria	No	Can contain
Chemical contaminants	No	Can contain

Program for mothers of babies



- Participants express concerns re:
- Parks in town safe for kids?
 - How about garden vegetables, mushrooms in mountain ?
 - Tap water contains radiation?

We listen, tell stories:
 ▶ Healthy life style
 ▶ Radiation data

Usually not necessary to talk science such as:

- ✓¹³¹I, short-life, disappeared from environment
- ✓¹³⁷Cs, still in environment, but firmly fixed with soil, no entry into water

◆ **Results**

- ▶ The interactions eased the residents' anxieties about radiation and encouraged them to regain their normal life style.
- ▶ Residents made such comments as "Oh, tap water is safe! I will tell today's knowledge to my family and neighbors".
- ▶ Also, the interactions empowered both PHNs and researchers to live through this difficult time.

◆ **Conclusions**

- ▶ We believe that effective and practical risk communication is achieved when this is given face to face as part of the local public health nurses' health program.
- ▶ We appraise the ICRP statement that the role of local professionals in charge of public health and education is essential.
- ▶ Our dialogue project is realizing our hope: people regain normal life style
- ▶ We continue this interactional project

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