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# NEWS FROM JACHN

# Topics of Japanese Community Health Nursing

- 1. Current status and prospects of personal health record (PHR) utilization in community nursing practice and research
- 1) Trends of Personal Health Record (PHR) in Japanese Public Health

### Masayasu Okajima

Chief Researcher, SOMPO Institute Plus Inc.

The utilization of Personal Health Record (PHR), where individuals manage their own health information, has become an international topic. Previously, individual health information was dispersedly managed by healthcare institutions and individuals. The utilization of PHR involves the development of an environment that is centered around the individual's agreement, focusing on centralized data management and population analysis. This has the potential to contribute to the improvement of community nursing and public health. In this newsletter, three trends in Japan's initiatives are highlighted.

### 1. Government Initiatives in Medical DX

The Japanese government is prompting the construction of a data linkage and analysis system for information generated by healthcare providers. Given that almost all citizens in Japan are enrolled

in health insurance, receipt data submitted by medical institutions to health insurance associations has already been archived nationwide. The portal site (https://myna.go.jp/html/index\_en.html) allows individuals and healthcare institutions to access medical treatment under health insurance and vaccination records. The utilization for information sharing between hospitals and clinics and emergency medical history verification is expected. System adoption by medical institutions is already mandatory in principle, and the challenge lies in promoting the use of Individual Number Card (published by local government) as the health insurance card to comprehensively leverage this system.

### 2. Corporate Health Management Initiatives

In Japan, conducting annual health examination for employees has been a legal obligation for companies. Previously, health examination results were managed without being digitized at the company level. Efforts are now underway to digitize and share health examination results with health insurance associations, to promote individuals' health. Expectations are high that health insurance associations can provide crucial evidence by analyzing PHR data in developing health promotion strategies for lifestyle-related diseases. With a severe labor shortage in Japan, the success of health promotion strategies is expected to contribute to enhancing corporate productivity. These initiatives are spreading not only among large corporations but also among small and medium-sized enterprises in local regions.

Health examination results shared with health insurance associations are also accumulated in the government's medical DX system. In this way, they can contribute to the enhancement of community nursing and public health.

3. Initiatives for Information Collaboration Infrastructure in Local Governments

Some local governments are building information collaboration infrastructure involving regional governments, medical institutions, and private enterprises, following the government's "Digital Garden City" Plan. Through this infrastructure, resident information, vaccination records, maternal and child health information held by local governments, and medical information held by healthcare institutions are shared according to the plans of each local government. These services contribute to the improvement of community nursing and public health, such as the provision of health management apps in the region, utilization in emergency medical care, and digitization of maternal and child health information, including infant health examinations.

PHR facilitates individual information management and generates valuable population analyses. Challenges are standardization of the confirmation procedures for individual consent and the use of convenient personal identification information such as Individual Number and health insurance number, which are legally allowed to be used for specific domains only.

2) Research on the utilization of public health nurse records and PHR for promoting the PDCA cycle of public health nurses' activities in the maternal and child health

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In Japan, the national government is actively promoting digital transformation through the establishment of the Digital Agency in 2020. As part of this policy, a novel electronic system is being developed to efficiently manage, integrate, and use personal health records (PHRs). These records include a range of health-related data, including medical expenses, vaccinations, maternal and child health, and various medical examinations, all linked to a unique personal number assigned to each citizen. Administrative agencies in Japan are expected to move forward with digital transformation, and integrate and use the new electronic system, drawing on anonymized information from PHRs to support evidence-based policy making.

It seems likely that in the future, community health nurses within Japanese administrative agencies will need to use PHRs and other pertinent digital data. This will help to quantify the impact of community health nurses' interventions on individuals and communities, and support the ongoing assessment of their work. To fully understand the effects of the work of community health nurses, it is important to bring together PHR data with information on the nature, extent, and timing of nurses' activities. These data are available from the nurses' daily activity records, but these records in Japan are often not digital or standardized. This may hinder the optimal use of recorded data in both practice and research.

To address these challenges, we have focused on the digitization and standardization of community health nurse records. Our interdisciplinary research team includes specialists in community health nursing, medical informatics, and information technology, alongside working community health nurses. This collaborative research aims to enhance the efficiency, quality, and usability of community health nurses' records. We are using the Patient Condition Adaptive Path System (PCAPS), a quality

engineering methodology, to systematize the process of community health nurse activities and identify a framework for optimizing their electronic records. This involves representing their activities in a flowchart and organizing the content of interventions and assessments by these nurses at each step within the chart. Through these studies, our future objective is to establish an electronic record system that enables data-driven evaluation and continuous improvement of daily community health nurse practices.

Future activities among community health nurses should be linked to the development of efficient and high-quality health services through the promotion of 'plan-do-check-act' cycles grounded in insights from data from both PHR and community health nurses' records. To achieve this, it will be necessary to visualize the practices of community health nurses, and generate evidence of these activities. This requires close collaboration between researchers and practitioners.

# 3) Prospects for Community Health Nursing Research in Accordance with the Utilization and Spread of PHRs

## Tomoya Itatani

Department of Nursing, faculty of Medicine, University of Miyazaki

Personal Health Records (PHRs) are digital tools that allow individuals to manage their own health information and share it with healthcare providers. With the proliferation of smartphones and wearable devices in recent years, the use of PHRs has rapidly expanded. PHRs include a wide range of health information, such as medical history, treatment history, test results, and immunization records. The spread of PHRs is expected to make patients the main actors in their health management and improve communication with healthcare

providers.

The use of PHRs in community health nursing holds great potential for promoting health and preventing disease among community residents. Community health nursing professionals can use PHRs to develop personalized health guidance and care plans based on individual health information. For example, in Nishinomiya City, efforts are being made to prevent the worsening of diabetes by combining health examination data, hospital test data, pharmacy dispensing data, and data stored on personal wearable devices. In managing the health of residents with chronic diseases, the regular recording and analysis of health status can enable early detection and intervention of worsening conditions. Furthermore, health education programs utilizing PHRs can also improve the health literacy of community residents.

However, there are several challenges to the spread and use of PHRs, including ensuring privacy protection and data security, improving the digital skills of users, and standardizing information sharing between patients and healthcare providers. Additionally, strict regulations on the handling of personal information are necessary when using PHRs.

Future community health nursing research should explore empirical solutions to these challenges. Specifically, research on effective methods of introducing PHRs, developing educational programs to promote the use of PHRs among community residents, and improving privacy protection and data security are needed. Moreover, long-term follow-up studies on the use of PHRs and their impact in communities are also required.

The spread and use of PHRs hold great potential in community health nursing. However, to

fully utilize these benefits, it is essential to address the challenges mentioned above. This requires collaboration among experts from various fields. A comprehensive approach from technological, ethical, and educational perspectives is needed for the development of PHRs, with community health nursing playing a connecting role. The future role of community health nursing research is to discover methods for utilizing PHRs in a manner centered around the residents.

#### [Reference materials]

 Ministry of Internal Affairs and Communications "Ministry of Internal Affairs and Communications' efforts toward building a data infrastructure for health, medical care, and nursing care" https://www.kantei. go.jp/jp/singi/keizaisaisei/miraitoshikaigi/ suishinkaigo2018/health/dai6/siryou2.pdf (April, 2019)

# 2. Best Research Awards of Japanese Community Health Nursing

1) Ethnographical study on preparations for nuclear disaster perceived by public health nurses in the zone of nuclear power plants



Junko Omori Graduate School of Medicine, Department of Public Health Nursing, Tohoku University

**Objective:** To describe the culture and true state of affairs as to how public health nurses (PHNs) perceive preparation for a nuclear disaster.

**Method:** Interviews were analyzed along with field exploration, and participant observation according to the ethnographical methodology.

**Results:** Nine PHNs were selected as key informants out of 25 participants near nuclear power plants. The extracted theme of PHNs' preparations

for nuclear disaster was "being concerned about the responsibility of PHNs in the nuclear zone to anticipate emergency situations." The main theme consisted of two domains: "adhering to roles as officers in a small municipality in the nuclear zone" and "bearing in mind the awareness to protect lives and living of residents as a nursing profession". PHNs have become increasingly aware of the risk after the accident in Fukushima, and of the necessity of preparing and protecting the lives of residents while feeling uneasiness.

Discussion: PHNs have felt the responsibility of preparing health activities while suppressing their feelings and awareness due to the organizational climate and their own views on the nuclear power plant, which had financed the lives of the residents and the municipality's administration. Because of the municipal characteristics, it is difficult for PHNs to take the initiative in conducting health activities and preparing for disaster. The implication from this research includes building partnerships among PHNs in nuclear zones and to demonstrate expertise of PHNs within municipality offices by providing wider regional support at regional and national level.

[Key words] nuclear disaster, disaster preparedness, public health nurses, true state of affairs, ethnography

2) Development of a Scale that Impedes the Use of Specific Health Guidance by Specific Health Guidance Relevant Individuals



Yaeko Akabori Faculty of Health care, Takasaki University of Health and Welfare

**Objective:** The present study aimed to develop a scale for measuring factors that hinder the use of

specific health guidance (Scale of factors that hinder the use of specific health guidance) by specific health guidance relevant individuals.

**Method:** The 50-item factors that hinder the use of specific health guidance Measurement Scale was designed based on previous studies and published data. A questionnaire survey was conducted on 3,738 individuals requiring specific health guidance in two cities, one town, and one village and scale reliability, construct validity, and concurrent validity were investigated.

Results: A total of 1,849 (49.5%) questionnaires were returned, of which 1,459 were valid. Item and exploratory factor analysis identified 18 items within the following 4 factors: feeling of futility regarding altering lifestyle habits; values prioritized above perfect health; negative feelings regarding health guidance; and pride in own judgement regarding personal health. Overall and subscale Cronbach's lphacoefficients were 0.904 and 0.737-0.845, respectively. Goodness of model fit values were as follows: goodness of fit index GFI=0.951; adjusted AGFI=0.935; comparative fit index=0.952; and root mean square error of approximation=0.053. A significant association was found using the knowngroups method and a significant negative correlation was observed regarding concurrent validity.

**Conclusion:** The present 4-subscale 18-item scale is useful for measuring the factors that hinder the use of specific health guidance.

[Key words] specific health guidance, use, inhibitors, development of a scale

 Relationship between the number of older people living alone that local volunteers monitor and satisfaction with or burden of monitoring activities and monitoring-related activities



**Yuka Nishi** *Matsubara City Community Health Division* 

**Purpose:** This study aimed to clarify the relationship between the number of older people living alone that local volunteers monitor and satisfaction or burden regarding monitoring and monitoring-related activities.

Method: An anonymous self-administered questionnaire survey was conducted with 1,812 (100%) local volunteers monitoring older people living alone. The survey items consisted of basic characteristics, number of older people living alone that they monitor in a month, monitoring activities, monitoring-related activities, scale of social activities, and scales of satisfaction and burden regarding monitoring activities. The number of older people living alone that they monitor in a month was classified into three groups: zero, one to five people, and six or more people.  $\chi^2$ test was performed for items of basic characteristics and monitoring-related activities, and one-way covariance analysis and multiple comparison tests were conducted to examine satisfaction with or burden of monitoring activities according to each group.

**Result:** The number of responses analyzed was 749 (41.3%). The percentage of those who performed monitoring-related activities and scores on scales of social activities and satisfaction were highest in the group of six or more people (p<.001). The burden score was lowest in the group of one to five people compared with the other groups (p<.001).

**Conclusion**: The results suggest that the large number of older people living alone that local volunteers monitor was related to a high degree of satisfaction and monitoring-related activities, and that local volunteers monitoring one to five people might be most appropriate.

[Key words] local volunteers, older people living alone, monitoring activities, monitoring-related activities, satisfaction regarding monitoring activities, burden regarding monitoring activities

# 3. Brief reports of Participants

 American Public Health Association 151th Annual Meeting & EXPO (APHA 2023)
Atlanta / Nov.12-15, 2023

### Satoko Okawa

Kansai Medical University

I presented a poster at the 151st American Public Health Association Meeting in Atlanta, US, in November 2023. The acceptance rate for this conference is 60–70%. Because of a previous rejection, I was careful in selecting my research category during submission. My presentation was titled "Which induces more social disadvantage in Japanese mothers' parenting: Adverse childhood experiences (ACEs) or teenage pregnancy?", and fell under the subject of "Maternal and Child Health" with potential perspectives on "Social Disparity". However, I opted for "International Maternal and Child Health" as my subject because I believed the US audience would be interested in a comparison with the local situation.

The conference committee provided various resources for presenters, including guidance on abstract writing and instructions for making posters/ oral presentations after acceptance of the abstract. I found the #BetterScience YouTube video "How to

create a better research poster in less time (#betterposter Generation 1)" (URL: https://www.youtube.com/watch?v=1RwJbhkCA58) particularly helpful.

The Opening General Session featured presentations by Katalin Karikó, Ph.D., recipient of the 2023 Nobel Prize in Physiology or Medicine, and Admiral Rachel Levine, MD, the 17th Assistant Secretary for Health for the US, whom I discovered through the Healthy People 2030's film. Dr. Karikó delivered a humorous speech, quipping, "I failed to retire, but I'm enjoying it," while emphasizing the importance of decisive leadership and trust in colleagues, which resonated with me for future endeavors.

Taking place in Atlanta, the birthplace of Martin Luther King Jr. and the heart of the civil rights movement, the conference commenced with a drum march performed by children of diverse ethnic backgrounds, which received an immense round of applause.

Now, let's examine the crucial poster presentations. The format at this conference required standing in front of the poster for an hour, fielding questions from the audience. Before my presentation, I wondered whether there would be any attendees interested in the ACE situation in Japan. However, over 10 individuals approached me with questions. The questions asked by the attendees were wide-ranging. For example, how to select ACE items and the reasons for it, the actual living conditions of teen mothers in Japan, and the support and educational content in schools and communities. Some remarked on the interesting link between ACEs, social disadvantage, and teen mothers. ACE research at this conference primarily comprised secondary analyses of existing surveys, with limited studies incorporating teen mothers due to their relatively small population size. This may have contributed to the interest in our study. As there were several similar secondary analyses and

systematic reviews by first- and second-year Ph.D students in the poster presentations, researchers conducting similar studies may consider this as an opportunity to present their work.

My only small disappointment at the conference stemmed from the lack of practical reports. Upon sharing this observation with a colleague in the US, she recommended The Association of Community Health Nursing Educators (ACHNE). For those interested in presenting practical reports in the US, I encourage considering ACHNE as an option.

# 2) 26th East Asian Forum of Nursing Scholars (EAFONS 2023)

Tokyo / Mar. 10-11, 2023

#### Yuta Himeno

Oita University of Nursing and Health Sciences

I attended the 26th East Asian Forum of Nursing Scholars (EAFONS) in Tokyo on March 10 to 11, 2023. The experience was very exciting for me. This forum consisted of keynote speeches, oral presentations, and poster presentations. I presented "Attempt to Elucidate the Structure of Challenging of Nurses Working in a Medium-Sized Hospital: An Analysis of Two Case Studies (Himeno et al)". In mid-size hospitals, it has become clear that by taking care of patients with various diseases and conditions at the same time, nursing feels like tasks, and is difficult to connect with patients as a rewarding experience. To solve this problem, I believe that it is necessary to take time to understand the meaning of the nursing care we are providing. During the Q&A session, I was asked about the situation of the medium-sized hospital in Japan. Although there are many small and mediumsized hospitals in Japan, I realized the importance of showing the situation of nurses working there compared to those in large hospitals. Through this

question, I learned about the situation of nurses in hospitals abroad. I was also able to obtain information on the methods of support for nurses adopted in other countries.

I am not good at speaking English. However, since EAFONS attracts people from countries where English is not the native language, they will try to listen even if the grammar is different. Therefore, EAFONS is a great opportunity for first-time presenters at overseas conferences. I utilized a variety of tools to create my presentation materials, and with the development of AI, Internet translations also provide natural English. I also utilized tools to prepare this letter. In this way, I managed to prepare my presentation even though I am not good at English. We encourage you to take up the challenge. Our daily practice is of great interest to practitioners and researchers overseas. Unfortunately, because the conference was held in Japan this year, I was not able to go abroad and enjoy the conference while experiencing the local food and culture, but I was able to eliminate my sense of rejection of the idea of presenting at an international conference after giving this presentation. I am also the only one who feels that I cannot speak well at an international conference where no one knows me. I think I can enjoy various things because nobody knows me.

Let's participate in the international conference together and enjoy the food overseas while delivering about nursing in Japan. There are many things you can see and learn from different countries. It isn't easy to make encounters by ourselves, but international conferences are the most accessible opportunities to do so. Why don't you join us at an international conference where you can talk with people with various ideas to improve your practice and research? If you have any problems or questions, please text me anytime.

# The 27th Annual Research Conference of JACHN

Main Theme: Community Social Innovation

Date: June 29-30, 2024

Venue: AER, Sendai, Miyagi, Japan. https://www.sendai-aer.com

Chairperson: Junko Omori (Professor of Tohoku University School of Medicine)

Program:

◆ Chairperson's speech: Junko Omori

◆ Educational lecture ◆ Symposium ◆ Keynote speech ◆ Online session ◆ Workshop ◆ Special discussion

♦ Board planning seminar ♦ Research seminar ♦ Relay talk.

Website: https://jachn27.yupia.net/index.html

# The 8th International Nursing Research Conference of the 8th WANS

Main Theme: Nursing around the World: Bringing Excellence in Global Healthe

Date: August 21-22, 2024

Venue: Prime Park Hotel & Convention Lombok, Indonesia.

Chairperson: Harif Fadillah (The Indonesian National Nurses Association)

Website: https://wans-icinna.org/

# 7th International Conference of the Global Network of Public Health Nursing

Main Theme : Building Resilience and Innovative Solutions: Amplifying Impact and Advancing Positive Global Public

Date: July 29-31, 2025

Venue: Calgary, Alberta, Canada

Chairperson: Dr. Aliyah Dosani (Mount Royal University) and Dr. Zahra Shajani (the University of Calgary)

Website: https://www.gnphn.com/7th-international-gnphn-conference

Program :

◆ Leveraging partnerships to tackle global health security.

♦ Healthy recovery after COVID-19

Health Change

◆ Global leadership on public health science and data

◆ Climates and Environmental Change

◆ And many more interesting lines of inquiry that will be confirmed shortly.

Publisher: International Exchange Promotion Committee

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