

# Qualitative Study of Breastfeeding Support by Public Health Nurses in Japan

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## Abstract

This study aimed to explore breastfeeding support by public health nurses (PHNs) working in Japanese municipalities in order to promote a breastfeeding-friendly environment. We interviewed 20 participants including five PHNs, four midwives, four doctors (one obstetrician and three pediatricians), and seven mothers who experienced breastfeeding between June and August 2010 and analyzed the data using content analysis. Collected data were classified into four categories including “collecting information”, “assessment”, “direct and individual support”, and “support for group and community” with 15 subcategories: infant’s condition, mother’s condition, mother-infant relationship, child rearing environment, mother’s state-of-mind, identifying necessary support, psychological support, concrete support, breastfeeding on demand, necessary information, advice to supporters, introducing services, breastfeeding-friendly environment, breastfeeding support groups and cooperation with relevant organization. This study suggested that the PHNs’ responsibilities for breastfeeding support should be extended beyond the currently understood scope of their duties. The study demonstrated that PNH needed to create a breastfeeding-friendly environment that included networking with breast care support organizations and peer groups and to promote breastfeeding in public areas including the workplace.

## Keywords

Public Health Nurse, Breastfeeding Support, Qualitative Research

## 1. Introduction

### 1.1. Breastfeeding Trend

Breastfeeding has various health benefits for mothers and children [1] [2] [3]; therefore, it is promoted in many countries including Japan. The WHO and UNICEF

recommend breastfeeding exclusively for the first 6 months after birth in their report, “Global Strategy for Infant and Young Child Feeding” [4]. The Young Child Physical Development Survey of the Ministry of Health, Labour and Welfare of Japan, conducted every ten years since 1960, demonstrated that the breastfeeding rate for 1 to 2-month-old infants was 70.5% in 1960 but decreased to 31.7% in 1970 and had remained low since then [5]. Increasing the breastfeeding rate of 1-month-old infants was a goal of Healthy Family 21, a national campaign for maternal and child health (MCH) begun in 2000 in Japan. In order to share the rationale for breastfeeding with health workers and to support mothers who wish to breastfeed their child, the Ministry of Health, Labour and Welfare published and promoted the Guide for Feeding and Weaning Infants and Young Children in 2007 [6]. As a result, according to the Young Child Nutrition Survey, the breastfeeding rate of 1-month-old infants increased by 51.3% in 2015. However, about 78% of mothers surveyed still expressed some reservations about breastfeeding [7].

## **1.2. Breastfeeding Support by Public Health Nurse**

Based on the MCH law enacted in 1965, public health nurses (PHNs) who provide home visits and telephone counseling to support mothers and families play an important role in supporting breastfeeding mothers. To increase the breastfeeding rate, PHNs have launched a breastfeeding initiative including group education for mothers, individual counseling, and organizing peer support groups [6] [8]. On the other hand, research results showed that PHNs did not provide sufficient information about the benefits of breastfeeding [9]. Furthermore, Hiraiwa [10] reported that PHNs unnecessarily advised the use of formula milk. Although the support of PHNs is important for mothers, their assistance is still insufficient in various respects. With the ultimate aim of promoting a breastfeeding-friendly environment, this study explored breastfeeding support provided by public health nurses in Japanese municipalities.

## **2. Method**

### **2.1. Participants and Data Collection**

We interviewed 20 participants including five PHNs, four midwives, one obstetrician, three pediatricians, and seven mothers who experienced breastfeeding between June and August 2010. PHNs, midwives and medical doctors who had more than 5 years working experience were included in this study. A semi-structured interview was conducted in accordance with the interview guide. The interviews lasted from 50 to 70 minutes.

### **2.2. Ethical Approval**

Ethical approval for this study was obtained from the Ethical Review Committee of the Faculty of Medicine, the University of Tokyo (Clearance No. 3035).

### **2.3. Information Sought in the Interview**

- 1) Socio-demographic characteristics: sex, age, work experience as a PHN, MW,

or doctor, mothers' breastfeeding experience.

- 2) Breastfeeding support: What kind of breastfeeding support should PHNs provide?

## 2.4. Data Analysis

Qualitative content analysis was used to analyze data [11]. First, we read the interview transcripts and formed assessment categories with corresponding codes. Next, we formed sub categories. To ensure the reliability of the categories, 20% of the codes were independently reviewed by two researchers, and the rate of agreement was calculated. Then the researchers reviewed these classifications and resolved disagreements through discussion. Finally, all the researchers reviewed the codes and categories to designate each of the categories and sub categories with an appropriate label.

## 3. Results

### 3.1. Participants

The median age of the PHNs, doctors, and midwives was 51, 54, and 55 years old, respectively. The median years of employment experience was 9, 25, and 28 years, respectively. Two doctors were male, and the rest of the participants were female. The median age of mothers who practiced breastfeeding was 41 years. The number of children ranged from one to three. The period of breastfeeding ranged from one month to 50 months. The age of children ranged from 1 to 27 years old (Table 1).

### 3.2. Breastfeeding Support by PHNs

Table 2 shows the categorized results of the content analysis. The rate of agreement for the codes was 83.3% among PHN, 96.8% among doctors and midwives, and 90.5% among mothers. These rates were deemed high enough to ensure reliability [11].

Breastfeeding support by PHNs was classified into four categories and 15 sub-categories. The categories were labeled, "collecting information", "assessment", "direct and individual support", and "support for group and community". Each category consisted of multiple subcategories as described below.

#### 3.2.1. Collecting Information

"Collecting information" consisted of four subcategories including "Infant's condition", "Mother's condition", "Mother-infant relationship", and "Child rearing environment".

"Infant's condition" was designed to assess the condition of the individual infant. A participant said, "*I measure the weight and watch the movements of infants when they are together with their mother. It is important to observe the general condition of infants, not only numerical values like weight*". "Mother's condition" was designed to assess the condition of individual mother. A participant mentioned, "*It is important to observe the mental and physical condition of the mother*".

**Table 1.** Socio-demographic characteristics of the participants.

	N	Age	Work experience	Number of children	Age of children	Total period of breastfeeding (months)
		Median (Range)	Median (Range)	Median (Range)	Median (Range)	Median (Range)
PHN	5	51 (28 - 61)	9 (5.8 - 20)	-	-	-
Doctor	4	54 (35 - 62)	25 (5 - 35)	-	-	-
Midwife	4	55 (40 - 58)	28 (19 - 31)	-	-	-
Mothers who experienced breastfeeding	7	41 (31 - 62)	-	1 (1 - 3)	4 (1 - 27)	14 (1 - 50)

**Table 2.** Breastfeeding support expected of PHNs (N = 20).

<Category>		
	[Sub-category]	Code
1)	<Collecting Information>	
(1)	[Infant's condition]	Measuring weight; observing movements of infant; noting general condition of infant
(2)	[Mother's condition]	Mental condition; physical condition; life style; ideas about breastfeeding
(3)	[Mother-infant relationship]	Position during breastfeeding; latching of infant; mother's expression
(4)	[Child rearing environment]	Relationship with husband, family, and friends; living environment; socio-economic situation
2)	<Assessment>	
(5)	[Mother's state-of-mind]	Clarifying mother's troubles
(6)	[Identifying necessary support]	Clarifying degree of independence and understanding; identifying information and support necessary for mother and family
3)	<Direct and individual support>	
(7)	[Psychological support]	Providing psychological support for mothers such as approval; listening closely; sympathy; acceptance
(8)	[Concrete support]	Providing concrete support when troubled such as coping with failure to lactate; helping underweight infants to gain weight
(9)	[Breastfeeding on demand]	Helping mothers to breastfeed whenever they or their infant require it
(10)	[Necessary information]	Providing information such as Benefits of breastfeeding; method of breastfeeding; breast care and promoting breast milk to the mother and family
(11)	[Advice to supporters]	Advice to supporters such as the husband, family, and friends on providing appropriate mental support to mothers doing breastfeeding
(12)	[Introducing services]	Introducing services such as facilities and home visit services providing breast care whenever the mother needs them
4)	<Support for group and community>	
(13)	[Breastfeeding-friendly environment]	Making a local directory of child care services; establishing public breastfeeding facilities; encouraging working mothers to continue breastfeeding; raising awareness about breastfeeding friendly environments
(14)	[Breastfeeding support groups]	Forming a peer group to help mothers experiencing troubled with breastfeeding and introducing breastfeeding support group to mother
(15)	[Cooperation with relevant organization]	Sharing information and cooperating with relevant medical institutes and midwives

and to hear her opinions about breastfeeding". "Mother-infant relationship" was designed to assess the relationship between mother and infant when the two are together, rather than individually. A participant emphasized, "*It is important to observe the position of both mother and infant during breastfeeding, infant latching and the mother's expression*". "Child rearing environment" was designed to assess the child care environment globally. A participant said, "*It is important to understand the woman's relationship with her husband, family and friends, the living environment and the couple's socio-economic status when PHN visit the mother's home*".

### 3.2.2. Assessment

"Assessment" of breastfeeding support consisted of two subcategories including "mother's state-of-mind" and "identifying necessary support". The former subcategory was designed to clarify the mother's concerns regarding breastfeeding. A participant reported "*It is important to clearly understand the mother's state-of-mind and any reasons for her feeling concern*". "Identifying necessary support" is a subcategory designed to identify the kind of information or help that mothers and their family require but are lacking. A participant explained, "*If the mother experiences difficulty while breastfeeding. The PHN should assess the situation very carefully from different points-of-view rather than giving a facile assessment and advice to the mother*".

### 3.2.3. Direct and Individual Support

"Direct and individual support" for breastfeeding consisted of six subcategories including "psychological support", "concrete support", "breastfeeding on demand", "necessary information", "advice to supporters" and "introducing services".

"Psychological support" was designed to assess the importance of the PHN's approval of, attention to, sympathy for, and acceptance of, the mother. A participant reported, "*If the mother feels any difficulty while breastfeeding and caring for her child. It is very important for the PHN to listen to and accept the mother's opinions*". "Concrete support" was designed to assess the importance of maternal coping with problems such as the inability to lactate and of helping underweight infants to gain weight. "Breastfeeding on demand" assessed the importance of supporting breastfeeding activity whenever either the mother or infant required it. "Necessary information" examined providing information of the benefits and promotion of breastfeeding, the methods used, and breast care to the mother and family. "Advice to supporters" assessed the importance of advising those close to the breastfeeding mother such as the husband, family, and friends on how to support her emotionally and psychologically. A participant mentioned, "*It is especially important to recognize the feelings of the grandparents who used artificial milk to feed the infant*". "Introducing services" addressed the importance of introducing facilities and home visit services providing breast care whenever the mother needs them.

### 3.2.4. Support for Group and Community

"Support for group and community" for breastfeeding consisted of three subca-

tegies including “breastfeeding-friendly environment”, “breastfeeding support groups”, and “cooperation with relevant organizations”.

“Breastfeeding-friendly environment” assessed the importance of providing a directory of child care services and establishing breastfeeding rooms in public areas. A participant reported, “*It is important to advise working mothers to continue breastfeeding and to raise awareness of the importance of having a breastfeeding-friendly environment*”. “Breastfeeding-support group” assessed forming a peer group to help mothers experiencing troubled with breastfeeding and introducing breastfeeding support group to mother. “Cooperation with relevant organizations” assessed the importance of information-sharing and cooperation with medical institutions and midwives.

#### 4. Discussion

Our research showed that PHNs were expected to play many roles in breastfeeding support. The examples of such roles reported by Hirano [12] were ‘direct care’ such as counseling and education, “grouping and networking”, and “systematizing”, including guaranteeing and improving the quality of care. The present study suggested that specifying activities in those categories in the context of breastfeeding would help PHNs work more effectively for the benefit of their community.

“Evidence for the Ten Steps to Successful Breastfeeding [13]”, a well-known guideline for breastfeeding support, identifies several very important steps for supporting mothers. However, the manual was written for health care staff in treatment centers and does not address the relevance of community activities and public policy changes. The authors of this present study hoped to address this omission for public health nurses working in municipal health centers and the community.

A previous study in Canada showed that a negative breastfeeding support experience was a significant effect modifier on the relationship between breastfeeding difficulties and postpartum depression [14]. The authors suggested that the quality of breastfeeding support was important not only to promote breastfeeding but also to insure maternal mental health through providing mothers with emotional and psychological support. These findings all indicate that health professionals including public health nurses need to pay closer attention to the quality of support for breastfeeding mothers, their family, and the community.

The Ministry of Health, Labour and Welfare [15] announced that “PHN should clarify living environment and health issues in their community, and implement and assess activities designed to promote health within the community”. In this study, PHNs were asked to collect information, analyze problems, and implement breastfeeding support. However, the results of the assessment were not included in the results. Further investigation is necessary to assist PHNs in improving their work efficacy.

#### 5. Limitations

This study targeted clinical and public health professionals and mothers and

therefore did not include feedback from researchers and occupational health nurses. In addition, the results of the assessment of the types of support examined were not included in the results. Further studies targeting a broader demographic are necessary to improve breastfeeding support expected of public health nurses.

## 6. Conclusions

This study examined four categories including “collecting information”, “assessment”, “direct and individual support” and “support for group and community” for assessing breastfeeding support and 15 subcategories, namely, “infant’s condition”, “mother’s condition”, “mother-infant relationship”, “child-rearing environment”, “mother’s state-of-mind”, “identifying necessary support”, “psychological support”, “concrete support”, “breastfeeding on demand”, “necessary information”, “advice to supporters”, “introducing services”, “breastfeeding-friendly environment”, “breastfeeding support groups” and “cooperation with relevant organization”.

This study suggested that the PHNs’ responsibilities for breastfeeding support should be extended beyond the currently understood scope of their duties. The study demonstrated that PNH needed to create a breastfeeding-friendly environment that included networking with breast care support organizations and peer groups and to promote breastfeeding in public areas including the workplace.

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## Conflict of Interest

We declare no conflict of interest.

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## Contributions

Noriko Toyama: study design, data collection, data input, data analysis, discussion, and finalized the manuscript.

Mineko Muranaka: study design, data collection, discussion, and reviewing of the paper.

Kayoko Kurihara: study design, data analysis, discussion, and reviewing of the

paper.

Kiyoko Kamibeppu: supervised all the processes involved in this study.

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