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Prevention of Abuse by Public Health Nurses Supporting Children and Mothers in Japan

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The purpose of this study was to clarify the relationship between a mother's life background and support from their parents in borderline child abuse cases in which public health nurses were continuously involved. We conducted semi-structured interviews with 29 public health nurses who had supported mothers, and found out that women who experienced abuse during childhood were less likely to have support from their parents than those who did not. These results suggested that it is necessary for public health nurses to support mothers who personally experienced child abuse from an early stage of pregnancy.

Key words: child abuse, child health, mother, public health nurse, borderline cases

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INTRODUCTION

The Japanese government has undertaken a variety of maternal and child health measures such as the use of maternal and child health handbooks, visits to homes with newborn babies, and infant health examinations since the enactment of the Maternal and Child Health Law of 1965 [1].This has contributed to a significant decrease in infant and perinatal mortality rates [2]. Yet, there have been some changes in circumstances surrounding mothers and children in recent years, which necessitate modification of maternal and child health measures [3-6].

In 2017, there were 133,778 inquiries (or consultations) regarding child abuse at child guidance offices. A total of 77 children died as a result of abuse or neglect that year [7]. According to the 14th Report of the Verification Results of the Observation of Death Cases Due to Child Abuse conducted by the Ministry of Health, Labour and Welfare [8], 65.3% of children who died of child abuse were younger than one year old. The report stated that child guidance offices must collaborate more actively with other branches of maternal and child health to solve problems, such as not receiving prenatal care and difficulties supporting mothers with mental health problems.

According to Heinrich's law applied to the analysis of medical accidents, for every accident that results in a major injury, there are 29 accidents with minor injuries and 300 incidents with no injuries [9]. Likewise, there are numerous minor incidents of child abuse, where child guidance offices are not

involved, necessitating the involvement of public health nurses in cases of child rearing difficulties [10]. A national survey showed that about 80% of public health nurses had experienced suspected cases of child abuse [11]. In other words, they are involved in cases of child-rearing problems even without clear evidence of child abuse.

Onoi *et al*. noted that public health nurses were expected to identify high-risk cases of child abuse and protect the abused children [12]. Public health nurses must read mothers' signals [4], identify child abuse cases, and use social resources to solve problems [5]. Kobayashi also noted that public health activities can contribute to not only identifying child abuse and neglect at an early stage and reporting them it to child guidance offices, but also helping children and their mothers improve their health problems [13]. In this way, public health nurses are expected to support borderline cases of child abuse. Yet, only a few studies have examined this issue so far.

The purpose of this study was to clarify the relationship between the mothers' life background and support from the mothers' parents in borderline cases of child abuse in which public health nurses were continuously involved.

In this study, child abuse is defined as "maltreatment by a person responsible for the child's welfare, including all physical, emotional, and sexual abuse and neglect". In this study, a Borderline Child Abuse Case is defined as "a case in which public health nurses continuously support maternal and child health activities with the realization that there are some child rearing problems, although the presence of child abuse might not be clear. Obvious child abuse cases are excluded".

MATERIALS AND METHOD

Research Collaborators

We received public health nurses who were well-versed in local public health nursing in Okinawa, Fukuoka, and Saga prefectures with more than a 5-year career and who had supported children in borderline child abuse cases to participate in this research.

These three prefectures were at average levels for advice requests regarding child abuse at child guidance offices, the number of regional councils for children in need of protection, and activities of the Infant family home visit business (Hello baby business) [14].

Data Collection

We conducted semi-structured interviews with 29 public health nurses about their support for children in borderline child abuse cases. The interviews lasted approximately 150 minutes and were conducted from July 2011 to April 2012. We were especially interested in cases that they remembered best and where their involvement lasted for a certain period of time. They were asked to talk about the outline of (age, family structure, supported organization, etc.), events that led them to think about the problems of child rearing, the content of support public health nurses offered, and the support process. All interviews were conducted in private rooms and recorded, and organized by themes. After organizing the outline of the case, the public health nurse who provided the case confirmed the contents.

Statistics

The information on mothers' life background and support from mothers' parents were compiled in a data set of descriptive statistics. Then, the data were divided into 3 groups based on the latter's information and analyzed using chi-square analysis. The statistically significant level was set as $p < 0.05$.

Ethical Considerations

We explained to all participants in the research the purpose of research, research methods, the right to refuse to participate in the research, and that the personal data were not disclosed for confidentiality reasons. This research was conducted under the approval of the Ethics Committee of University of the Ryukyus (No.89 in 2011).

RESULTS

Characteristics of Participants

Characteristics of 29 public health nurses who were interviewed are shown (Table 1). The average age was 42.7, and 44.8% of them were in their

Table 1. Characteristics of participants in the research

		N＝29(%)
Sex	Female	29 (100)
Average age		42.7
Age	30s	10 (34.5)
	40s	13 (44.8)
	50s	6 (20.7)
Average years of public health nurses' experience		17.1
Experience as a public health nurse	Less than 10 years	5 (17.2)
	10 to 20 years	14 (48.3)
	20 years and over	10 (34.5)
Education	College	6 (20.7)
	Public health nurse training course	22 (75.9)
	Others	1 (3.4)
Work place	Public health center	7 (24.1)
	Municipal agency	22 (75.9)
Population	Less than 100,000	15 (51.7)
	100,000 and over	14 (48.3)
Number of experiences	Less than 10	7 (24.1)
	10 and over	22 (75.9)

Table 2. Family background

		N＝58(%)
Average age of mothers		29.0 ± 6.9
Average age of fathers		32.4 ± 8.9
Average number of family members		4.3 ± 2.0
Average number of children		2.1 ± 1.7
Average months of public health nurses' support		50.8
Children with diseases		20(34.5)
Mothers with psychiatric disorder		15(25.9)
Mothers with intellectual disabilities		15(25.9)
Mothers giving birth in their teens		13(22.4)
Mothers having been or suspected of being abused during childhood		27(46.6)
Moving	Moving in from another municipality	16 (27.6)
	Moving out to another municipality	4 (6.9)
	Moving in from and out to other municipalities	4 (6.9)
	Municipality	4 (6.9)
Support from parents	Yes	24 (41.4)
	No	28 (48.3)
	Unknown	6 (10.3)

forties. The average year of health nursing experience was 17.1, and 35.5% of them worked as public health nurses for more than 20 years. Their workplaces were either municipal agencies（75.9%）or public health centers（27.1%）. Of these nurses, 22% experienced child abuse cases more than 9 times and 16 participants considered that they had been involved in child abuse cases more than other public health nurses.

Characteristics of Cases

We had 29 public health nurses describe 58 borderline child abuse cases, plus the family background（Table2）. The average ages of mothers and fathers were 29.0（± 6.9）years and 32.4（± 8.9）years of age, respectively. The average numbers of family members and children were 4.3（± 2.0）and 2.1（± 1.7）, respectively. Of the children, 35% had diseases such as developmental delay and/or disability or severe motor and intellectual disabilities. The

Table 3. Grasp opportunity of cases

N＝58(%)

	Total	Support from parents n＝24	No support from parents n＝28	Unanswered n＝6
Public health nursing activities	28 (48.3)	14 (58.3)	10(35.7)	4(48.3)
Requests from medical institutions	18 (31.0)	6 (25.0)	10(35.7)	2(33.3)
Consultation from mothers	5 (8.6)	1 (4.2)	4(14.3)	0(0)
Requests from community organizations	4 (6.9)	2 (8.3)	2(7.1)	0(0)
Requests from child consultation centers	3 (5.3)	1 (4.2)	2(7.1)	0(0)

average months of public health nurses' support was 50.8 (range from 30 to 120).

As shown on Table 2, those who had support from mothers' parents, those who did not, and "unknown" were 24 (41.4%), 28 (48.3%), and 6 (10.3%), respectively.

The Life Background Focusing on the Support from Mothers' Parents

The method of grasping the case were public health nursing activities (48.3%), requests from medical institutions, women's consulting offices, and welfare offices (31.0%), consultation from mothers (8.6%), consultation from local residents (6.9%), and requests from child consultation centers (5.2%). Public health nursing activities included the issuing of maternal and child health handbooks, visits to homes of new born babies, health examinations for young children, and interviews during the application of medical expense deductions (Table 3).

The parental support group tended to have more understanding regarding the public health nurses' duties, and no support from parents group tended to receive more requests from related organizations and consultations from mothers, but there was no significant difference.

As for the grasp period by the public health nurse of the group without support from parents, fetal period is 28.6%, 10.7% within the first month of life, 17.9% from 1 months to 12 months, 21.4% from 1 to 6 years old, and 21.4% from 7 to 12 years old. There was no significant difference in the time of grasping the group of mothers without parental support compared with mothers with support at fetal age and 7-12 years old (Table 4). The economic situation of the group without parental support was 25.0% on for welfare, 42.9% almost on welfare, and 17.9% were under normal economic conditions (Table 5). There was a tendency for more cases to receive welfare in the group without parental support than in the group with parental support, but there was no significant difference.

The support period by public health nurses for the group no support from parent was 7.1% for less than 6 months, 7.1% for 7 months to 2 years, 35.7% for 2 years, and 50.0% for 3 years or more (Table 6). The average support period was 44.8 months for the group with support from parents and 67.1 months for the group no support from parents. The support period of the no support group was longer, but there was no significant difference.

Table 7 shows the background of the mothers. The teenage pregnancy history was 33.3% in the group support from parent and 17.9% in the group no support from parent. There were many no support group, but there was no significant difference. Mothers with psychiatric disorders were 25.0% of the no support from parent group, and mothers with intellectual disability were 35.7% of the no support from parents. Mothers with intellectual disability tend to be more common in the group no support from parent group, but there was no significant difference.

The change in homes due to moving-in / out was 37.5% in the no support from parents group and 50.0% in the no support from parents group, and the group no support from parents tended to change their home, but there was no significant difference.

Abuse experiences were 25.0% in the family-supported group and 67.9% in the non-family-supported group. Only the experience of abuse had a significant difference between the support from their parents and the non-support from their parents ($p = 0.004$).

Table 4. Child's age when public health nurses knew about subjects' support from parents

N＝58(%)

	Total	Support from parents n＝24	No support from parents n＝28	Unanswered n＝6
Fetal period	14(24.1)	5(20.8)	8(28.6)	1(16.7)
Within 1 month	9(15.5)	5(20.8)	3(10.7)	1(16.7)
1 to 12 months	11(19.0)	6(25.0)	5(17.9)	0(0)
1 to 6 years old	17(29.3)	8(33.3)	6(21.4)	3(49.9)
7 to 12 years old	7(12.1)	0(0)	6(21.4)	1(16.7)

Table 5. Economic conditions

N＝58(%)

	Total	Support from parents n＝24	No support from parents n＝28	Unanswered n＝6
On Welfare	9(15.5)	1(4.2)	7(25.0)	1(16.7)
State close to welfare	23(39.7)	11(45.8)	12(42.9)	0(0)
Living normally	16(27.6)	9(37.5)	5(17.9)	2(33.3)
Unanswered	10(7.2)	3(12.5)	4(14.3)	3(50.0)

Table 6. The duration of support

N＝58(%)

	Total	Support from parents n＝24	No support from parents n＝28	Unanswered n＝6
Less than 6 months	5(8.6)	2(8.3)	2(7.1)	1(16.7)
7 months to 2 years	11(19.0)	6(25.0)	2(7.1)	3(49.9)
2 years	16(27.6)	5(20.8)	10(35.7)	1(16.7)
3 years or more	26(44.8)	11(45.9)	14(50.0)	1(16.7)

Table 7. Mothers' background

N＝58(%)

	Support from parents n＝24	No support from parents n＝28	Unanswered n＝6	*p*-value
History of teenage pregnancy	8(33.3)	5(17.9)	0(0)	0.156
Those who had a psychiatric disorder	5(20.8)	7(25.0)	3(50.0)	0.341
Those who were intellecutally disabled	4(16.7)	10(35.7)	1(16.7)	0.254
Moving out, moving in (changing houses)	9(37.5)	14(50.0)	5(83.3)	0.172
Those who were single	8(33.4)	8(28.6)	2(33.3)	0.723
Those who were abused by parents	6(25.0)	19(67.9)	2(33.3)	0.004

A chi-square test

Case 1（**A teenage with a severely disabled child**）

A seventeen-year-old mother delivered a 714-gram premature baby boy. Her mother visited a public health center requesting medical benefits and immediately following this request, a public health nurse began to support this family. The baby underwent a tracheotomy and gastrostomy, and needed a ventilator for breathing. He received a physical disability certificate. The baby's father, who had no intention of marrying the baby's mother, did not pay any child support. The teenage mother's family was composed of five members: the teenage mother, the baby, the mother of the teenage mother（40's）, the teenage mother's older sister（20's）and the baby（1-year-old）. They lived in a two-bedroom apartment on the third floor and depended upon income from the teenager mother's sister plus, disability benefits, and allowances from the government for fatherless families. Her mother did the household chores and managed the household budget. The teenage mother grew up in a fatherless family, failed to graduate from high school, had previously slashed her wrists, and did not talk about herself much. She was encouraged to see a psychotherapist, but failed to do so.

The baby was hospitalized, and was discharged at

the age of one year. A home-visit nursing station, a public health center, and the city supported the baby after the discharge. The teenage mother performed suctioning for the baby once every 15 minutes and bathed him with the help of a home-visit nurse. The baby was transported to the emergency room and was hospitalized five or six times for about a year because the gastrostomy tubes were removed, but he was at last able to breathe on his own without a ventilator. Staff members of the Child Development Center periodically visited their home for rehabilitation. He weighed more than seven kilograms and was able to sit and stand by himself at the age of four. The teenage mother used to look gloomy and could not talk to others without looking at their eyes, but she became cheerful when talking about her growing child.

The teenage mother consulted a public health nurse about leaving her child at the Child Development Center. The public health nurse volunteered to help the mother go to the city hall and go through the procedure. However, the teenage mother was not yet ready to go out by herself. Therefore, when the public health nurse asked, "Would you like to go with me?" the mother replied “Please,” and went to the welfare section of the city hall together. The person in charge of the Children's Welfare Division helped her to do all necessary things to leave her child to Child Development Center, and the mother said, "I have been taught various things."Afterward, she asked a variety of questions to the public health nurse such as “What kind of things public health nurses do?” “What did you study before you became a public health nurse?” “What kind of school did you go to?” and “How can I become a home visiting nurse?” She said she wanted to become a home visiting nurse in the future.

Case 2（A mother who had low intelligence and a father who is emotionally involved with his former wife）

A woman got pregnant at the age of 19. She was unmarried but a man went to city hall with her to obtain maternal and child health handbook although he did not to being the father of the baby. He told the public health nurse that he was letting her stay at his apartment just because she was pregnant. The public health nurse felt uneasy about her mental capacity from her conversation and the atmosphere. She was financially insecure, therefore, the public health nurse talked to her about child birth support at the time of issuing a maternal and child health handbook.

After giving birth, she stayed in her grandmother's home to take care of her baby with the support of her grandmother. Her parents were divorced and her mother got remarried to another man but she was abused by her stepfather. She was married to the baby's father but still suffered economically, so the public health nurse advised her to live on welfare. Then she could live in an apartment with a toilet and a bathtub. Public health nurses and counselors for children at home frequently visited her apartment and taught her how to take care of the baby, such as how to make baby milk and buy baby clothes, and take care of her baby. When the baby had a fever, she always called a public health nurse on the phone and asked for help. On one such an occasion, a public health nurse told her how to treat the baby and accompanied her to the hospital.

Her husband had been married before and had a child with his former wife. He was compelled to divorce her, and then he began to have a mental problem. Although he was divorced, he still worried about his ex-wife and child, and met them whenever his ex-wifecalled. The young mother always got nervous when he met his ex-wife, so she became depressed and developed alopecia areata.

Public health nurses and persons in charge of welfare benefits recommended her to take her baby-to a nursery near her apartment. The baby’s mother was taught how to bring the baby to the nursery in the morning. Counselors for children at home helped her to have her baby undergo physical examinations and get appropriate vaccines. She wanted to rear her baby at home as much as possible, but when she was unable to do so, the nursery cared for the baby. In this way public health nurses, nursery staff members, persons in charge of welfare benefits, and counselors for children at home constructed a network for supporting to support her child-rearing activities.

She was thinking that she would obtain a divorce from her husband, but then she got pregnant again.

Her husband opposed her having another child, but she delivered a second child anyway. He got divorced from her and moved to another prefecture. It was difficult for her to simultaneously rear two children, therefore, a child consultation center took care of the second child. The mother and her child decided to move to a neighboring town, consequently the public health nurses and other staff of that town started to take care of them. When they visited the young family, they were living in a dim room with no lighting. The mother alone could not find a store to buy lighting fixtures.

The public health nurses also helped her to start electricity, gas, and water service.

DISCUSSION

In this study, we analyzedwomen who were at high risk of having problems in child rearing and in daily living, such as: economic difficulties, divorce, intellectual disabilities, psychiatric disorders, moving out, lack of help in child rearing. Public health nurses were engaged in support activities to help them arrange their lives over a period of time. About two-thirds of the women who did not have support from their parents were more likely to be abused than those who had support from their parents at a statistically significant level (table 7).

Socially Vulnerable Mothers

In this study of borderline child abuse cases involving mothers supported by public health nurses, the mothers were socially vulnerable, and often suffered from intellectual disabilities, psychiatric disorders, and economic difficulties. Murayama *et al*. [15] noted that public health nurses' support for socially vulnerable people usually dealt with their health problems by focusing on how to rebuild their daily lives which had deteriorated due to their own health problems. The public health nurses in this study provided support for housing, eating, and clothing so that mothers with intellectual disabilities and psychiatric disorders who were vulnerable could still live with their children.

Most mothers in borderline child abuse cases had difficulties with interpersonal relationships, as illustrated in previous studies [10, 16, 17]. These mothers are limited to taking advantages of social resources only after public health nurses and other supporters repeatedly explain their benefits and help them apply for said benefits. Public health nurses supported mothers who lacked the ability to nurture children by asking them to have their children enter nurseries, teaching them how to nurture babies, and taking them to relevant institutions for obtaining necessary public support. Even after they learned to rely on social resources, public health nurses continued to support them whenever they were in trouble. Although public health nursing activities were important to ensure their living environment, the use of social resources was also indispensable for supporting their child rearing in borderline cases of child abuse.

Support from Mother's Parents

In this study, there were some cases in which premature babies had to undergo expensive medical procedures, that their mothers could not pay for. These procedures included using a ventilator, frequent suctioning due to tracheotomy, and hospitalization for fever. In most cases of children with diseases, the mothers had support from their parents and stayed in their homes. Grandparents of children with illness are expected to play an important supportive role for mothers and illness as persons with experience in child rearing and household affairs. Mothers were especially busy with childcare during the neonatal and infancy periods, so that the child-rearing support program which temporarily took care of their babies was very beneficial.

As reported in previous studies, there were domestic problems such as divorce of parents and violence from parents [17-21]. According to Shimada *et al*. [22], most mothers can expect support from their parents after childbirth, but, expectant mothers necessitating special assistance, usually cannot expect childcare assistance (Tokutei Ninpu) from their parents. Cases in this research supported that arguments.

Abuse Experience of Mothers

Mothers who had been abused often usually had no interaction with their parents. According to previous studies, mothers who did not have support

from their parents were more likely to be abused from their parents during childhood and then laters abuse their own children themselves at a statistically significant level [23, 24]. According to Okada [25], there are two kinds of serious situations that threaten attachment: the loss of a mother due to bereavement and estrangement during the neonatal and infancy periods, or the loss of reassurance after abuse by parents. He also states that a mothers' insecure attachments tend to be transmitted to their children. There is a possibility that mothers who failed to acquire support from their parents were not skillful at rearing children because their abuse experience caused poor interpersonal skills and insecure mental conditions.

These results suggested that mothers in borderline child abuse cases were less likely to acquire support from their parents, therefore, they were in greater need of public assistance. For this reason, it is necessary for public health nurses not only to pay attention to a mothers' current problems, but also to recognize each mothers' childhood experiences to help the nurses improve the quality of their support for socially vulnerable mothers.

The Limitations of Research and Future Tasks

In this research about the borderline child abuse case, we interviewed public health nurses from only three prefectures, thus it is not appropriate to extrapolate our findings to a national level. In some cases, we also could not get enough information on the mothers' life background. In future studies, we need to increase the number of samples and systematically refine our research methods for collecting necessary information on each mothers' life background.

We revealed that there were the following characteristics of borderline child abuse cases in which public health nurses continuously supported maternal and child health activities:

1) Mothers faced economic difficulties in about 60% of cases.
2) The majority of mothers grew up in a single parent household and were intellectually disabled and mentally ill.
3) Many mothers with disabled children received support from their parents.
4) About 50% of mothers did not have support from their parents.
5) About 70% of mothers who did not have support from their parents experienced child abuse themselves. There was a statistically significant relationship between the unattainability of support from their parents and the experience of abuse.

It is necessary for public agencies to support mothers who do not have support from their parents from an early stage of pregnancy.

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