

A consideration on the potentiality of Little Baby Handbook:

Sub-book using in addition to Maternal and Child Health Handbook

母子健康手帳に付帯するリトルベビーハンドブックの持つ可能性に関する一考察

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I. Introduction

It is speculated that the time of raising a newborn infant is a delightful day for parents to see their baby grow day by day. On the other hand, depending on the condition of the infant, the parents' guilt and worry may greatly outweigh their happiness. One example is the birth of low birth weight infants. According to 2021 data, the birth rate of low birth weight (LBW) infant weighing less than 2,500 g in Japan is 9.4% (Ministry of Health, Labor and Welfare (MHLW), 2022). In particular, very low birth weight (VLBW) infant weighing less than 1,500 g and extremely very low birth weight (ELBW) infant weighing less than 1,000 g are often preterm infant or have multiple births, and it is necessary to carefully monitor not only their weight but also all developmental aspects without comparing them with others.

There is the Shizuoka Little Baby Handbook, a sub-book using in addition to the Maternal and Child Health (MCH) Handbook, officially published in 2018 in Shizuoka Prefecture. Starting with this creation, parents of LBW infant over the country have resonated, and official Little Baby Handbook, tailored to local conditions, have been published one after another in various places. As of October 2022, it is being used in 11 prefectures and 6 cities (HANDS, 2022).

This nationwide phenomenon is nothing less than the fruit of the enthusiasm of parents who continued to act energetically. In addition, it is presumed that the existence or significance of MCH Handbooks, which are used by parents and children all over Japan, has a lot of relation with this phenomenon.

In this paper, I would like to review the history, content, and significance of the MCH Handbook in Japan and the world. Further, I would like to consider the potentiality of using the

Shizuoka Little Baby Handbook, as a sub-book created for LBW infant and parents.

II. Methods

The method was a literature research. First, the literatures on the current state of LBW infants and the emotions of parents of LBW infants were collected, investigated, and analyzed. Next, previous studies on MCH Handbooks were collected, investigated the historical changes and significance of MCH Handbooks in Japan and the world, and clarified the problems in it. In addition, the MCH Handbook and the Shizuoka Little Baby Handbook, which are currently in use, were obtained and compared. Finally, the advantages of using the Shizuoka Little Baby Handbook were discussed.

III. Results

1. Current status of neonatal care and the LBW infants in Japan

According to the Annual changes in demographic overview (rate) 2022 (MHLW), the neonatal mortality rate will be 0.8 in 2021 (per 1,000 neonatal). Compared to rate 31.4 in 1947 (S22), neonatal mortality reduced by almost a quarter. The birth rate of LBW infant is 9.4%, VLBW infant is 0.8%, and the rate of births in early pregnancy (less than 37 weeks), the rate of premature infants, is 5.7%.

Information websites of "Healthy Parents and Children 21 (2nd)" (MHLW) mentions that medical progress has been remarkable, and that the percentage of LBW infants in the number of births has been on the rise since the 1980s, and since around it 2005 has remained flat at around 9%, although the number of births is on a downward trend in Japan.

Low Birth Weight Infant Health Guidance Manual (2019) provide the following information. Immediately after birth, LBW infants, regardless of their weight or gestational period, have not reached sufficient physical maturity or organ function to adapt to extrauterine life. It has been pointed out that LBW infants often require medical care after they are discharged from the hospital, and that they are at high risk of growth and developmental delays, disabilities, and health, even after they reach adulthood. Therefore, parents have various concerns about health, disability, growth and development, learning, etc., and have difficulties in raising children at each life stage such as immediately after birth, after discharge, infancy, early childhood, and school age. Therefore, LBW infants and their guardians need careful and continuous support tailored to their individual circumstances.

2. Emotions of mothers who gave birth to LBW infants

Experienced mothers who gave birth to LBW infants reported severe postnatal depression (Kobayashi, 2021). It is reported that sudden announcement instead of expected birth, giving birth without being able to sort things out, babies were taken to the NICU and felt left out, and when looking at babies feeling deep remorse for what I did wrong, and so on.

LBW Infant Health Guidance Manual (2019) point out that mothers who have given birth to LBW infants should have negative thoughts experiencing a different pregnancy and birth process than they had envisioned and lists 6 item as negative thoughts.

- A. Feeling of loss due to premature birth
- B. Apology to the child
- C. Anxiety about the child's condition / future growth and development
- D. Anxiety about life changes due to child's discharge from hospital
- E. Difficulty raising children, lack of confidence in raising children
- F. Parental role conflict

In the Manual, it is mentioned that mothers who gave birth to LBW infants often hesitate to express their feelings to others and are unable to ask for help, and that it is important for supporter to build a relationship of trust with the mother in the process of understanding the mother's thoughts and solving worries together.

3. Histories and Significances of Maternal and Child Health (MCH) Handbook in Japan

The MCH Handbook has a long history beginning with the Prenatal and Nursing Handbook in 1942(S17). After World War II, the Child Welfare Law was enacted and promulgated in 1947. Based on this, Maternal and Child Health Administration was promoted. The format was established in 1948 to expand the record to include children, making it the "Mother and Child Handbook." The name Maternal and Child Handbook continued for 19 years until 1965, with several revisions. With the enactment of the Maternal and Child Health Law in 1965, the name was changed to "Maternal and Child Health Handbook", and it continues to this day (Morita, 2000). It was described that the Handbook played a very important role in the field of public health practices (Wake, 1970). As a basic policy tool for maternal and child health, it has become familiar to many people, including nursing mothers, parents of infants, and healthcare professionals. The MCH Handbook is a consistent record of the health of mothers and children during pregnancy, childbirth, and childcare. Article 16 of the Maternal and Child Health Law in Japan stipulates that municipalities must hand over MCH Handbooks to those who have reported pregnancy and

stipulates that health records of maternal and infant health examination and health guidance should be inscribed in the Handbooks.

The format of the MCH Handbook has been revised approximately every 10 years based on changes in social conditions, changes in health care and welfare systems, and revisions to infant physical growth curves.

In the interim report of September 2022(Study Group on MCH Handbook, 2022), regarding the descriptions about children, the item of the indication of growth and development is in the form of answering "Can the child do it? Yes or no" at a certain point in time (Figure 1), there was an opinion that it might arouse the anxiety of parents who have children who tend to grow slower than typical, on the other hand there were opinions that pediatricians often use it because it leads to early detection of problems and that it leads to the awareness of parents. There was an opinion that the items for the indication of growth and development should be added or deleted based on new evidence. Regarding the physical growth curve for infants (Figure 2), the curve has been provided as one of health information based on the standard weight as a guideline from a scientific point of view, and it seems that many people feel relieved by checking the curve. On the other hand, there was also the opinion that showing the average value might cause some people to become overly anxious (Main Opinions of the Meeting, 2021).

Your Baby's Condition at Six to Seven Months Old			
保護者の記録【6～7か月頃】			
(Recorded on _____ (Year) _____ (Month) _____ (Day).)			
(年 月 日記録)			
● When was your child able to turn over? 寝返りをしたのはいつですか。	((Month)	(Day))
	(月	日頃)
● When was your child able to sit up by himself/herself? ひとりすわりをしたのはいつですか。 (*Sit up by himself/herself means the child is able to sit up without any support.) (「ひとりすわり」とは、支えなくてもすわれることをいいます。)	((Month)	(Day))
	(月	日頃)
● Does your baby reach for toys near him/her? からだのそばにあるおもちゃに手をのびてつかみますか。		Yes /No	
		はい /いいえ	
● Does your baby babble when he/she is with the family? 家族といっしょにいるとき、話しかけるような声を出しますか。		Yes /No	
		はい /いいえ	
● Does your baby turn his/her head when the TV or radio is on? テレビやラジオの音がしはじめると、すぐそちらを見ますか。		No /Yes	
		いいえ /はい	
● Has your baby started eating solid food? 離乳食を始めましたか。 (One month after your baby starts eating solid food, begin giving him/her a variety of solid food two times a day. From age seven or eight months, the food given to your baby should be soft and able to be mashed by his/her tongue.) (離乳食を始めて1か月位したら1日2回食にし、食品の種類をふやしていきましょう。7、8か月頃からは舌でつぶせる固さになります。)		Yes /No	
		はい /いいえ	
● Do your baby's pupils look white or yellowish-green? ひとみが白く見えたり、黄緑色に光って見えたりすることがありますか。※		No /Yes	
		いいえ /はい	
● Is there anyone you feel comfortable asking for advice about raising a child? 子育てについて気軽に相談できる人はいますか。		Yes /No	
		はい /いいえ	
● Is there anything about raising a child that worries you or that you find particularly difficult? 子育てについて不安や困難を感じることはありますか。	No /Yes	/Difficult to Say	
	いいえ /はい	何ともいえない	
● Use the space below to write down notes about your child's growth, any concerns about raising a child or how to wean a child, any illness(es) that required medical attention, and any other comments that you have. 成長の様子、育児の心配、かかった病気、離乳食の心配、感想などを自由に記入しましょう。			

Figure 1. Your Baby's Development & Health Checkup for Your Baby (Reference: Maternal and Child Health Handbook (English version))

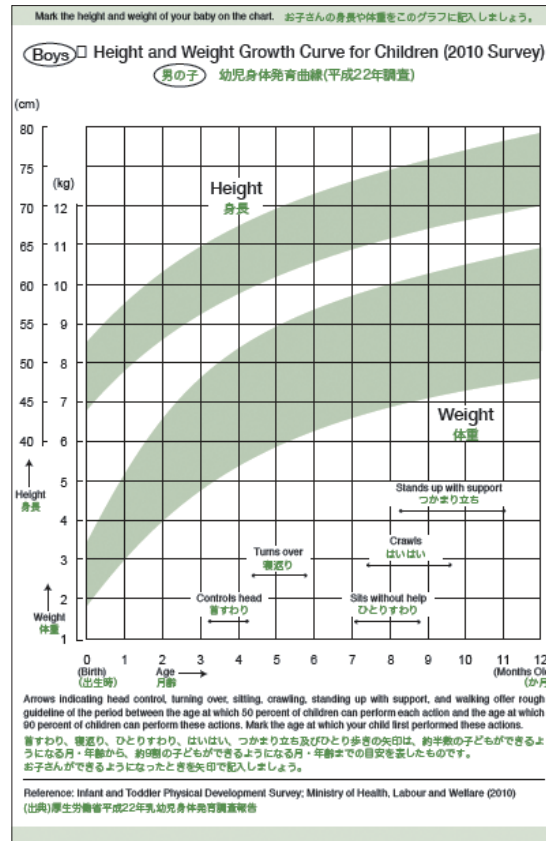


Figure 2. Physical Growth of Infants and Children
 (Reference: Maternal and Child Health Handbook (English version))

4. Significance of MCH Handbook in the World Health Promotion

The World Medical Association (WMA) stated the MCH Handbook, or equivalent, can be an important tool to improve continuity of care and benefit health promotion for mothers, neonates and children (WMA Statement, 2018). The statement is as follows. In 1948, Japan became the first country in the world to create and distribute a MCH Handbook, in order to protect and improve the health and wellbeing of the mother and child. There are now approximately 40-country versions of the MCH Handbook, all adapted to the local culture and socio-economic context. The use of MCH handbooks has helped improve the knowledge of mothers on maternal and child health issues, and has contributed to changing behaviors during pregnancy, delivery and post-delivery period. The MCH Handbook can promote the health of pregnant women, neonates and children by using it as a tool for strengthening a continuum of care. Physicians can make better care decisions, by referring to the patient's medical history and health-check data recorded in the MCH Handbook.

Nakamura (2009) reports that, inspired by Japan's MCH Handbook, various initiatives reflecting the culture and socio-economic conditions of each country are being carried out with the cooperation of the Japan International Cooperation Agency (JICA), UNICEF, NGOs, and others. He

points that the MCH Handbook can be said to have been an appropriate technology developed as a tool to improve the health of mothers and children during the period when Japan was poor after the war, therefore, the priority should be to create a system in which everyone can receive appropriate health and medical services when they need them.

5. MCH Handbook and the process of forming standards for childcare methods in Japan

Koyanagi (2011) analyzed the Maternal and Child Health Handbook in Japan and pointed out as follows.

In Japan, the maternal and child health handbook, which is pioneering in the world, has become established as one of the public maternal and child health management systems.

Because of Japanese infant mortality rate is among the highest in the world, the health management system based on the MCH Handbook is highly regarded. In addition to these medical record functions, the features of the MCH Handbook are that it has conveyed the essentials of childcare knowledge to prospective parents and has a record column that can be used as a childcare diary, which has been useful in enlightening childcare knowledge.

Since 1950, MCH Handbooks have denied experiential childcare and presented expert-led "correct childcare knowledge" as "parenting methods." Since it is based on scientific research, changes in parenting methods have been greatly influenced by the progress of scientific research. In 1966, when the name was changed from the Maternal and Child Handbook to the Maternal and Child Health Handbook, the promotion of regular breastfeeding, prohibition of co-sleeping, and attention to hugging habits, which had been listed as discipline until then, were deleted. This is thought to be due to the reconsideration of the items that constrain contact, because value was placed on contact. Around the 1970s, research that emphasized the bond between mother and child became a scientific basis and created a trend that emphasized contact.

The presentation of standards for parenting methods combined with the health management system based on the MCH Handbook contributed to the spread of scientific childcare methods. The pitfalls of the MCH Handbook would be that simply listing the methodological aspects might induce anxiety about childcare and loss of self-confidence of parents.

6. Production of Shizuoka Little Baby Handbook - A parenting Handbook for LBW infants

Shizuoka Little Baby Handbook is a parenting handbook for Low Birthweight Babies and families living in Shizuoka Prefecture. Since the normal MCH Handbook is made on the premise of full-term birth, it is difficult to record and confirm the growth of a small baby due to premature

birth. There was a voice that every time I saw it, my family was depressed. Listening to the voices of families the government decided to create the "Shizuoka Little Baby Handbook." In creating it, the existing handbook that had created by a support group was taken over. In March 2018, after discussions with many concerned parties, including people from relevant organizations, medical institutions, and representatives of municipal governments, Shizuoka Little Baby Handbook has been completed (Shizuoka Prefecture, 2022).

This Handbook is designed to describe the detailed development steps of babies, and it is expressed in very easy phrases. For example, at the chapter of Growth and Development, squares of development record structured around discoveries that parents would like to fill out (Figure 3, 4). Body Measurements (Development Curve) are explained the use of corrected age stating from their planned (not actual) date of birth (Figure 5).

In addition, in the introduction and at the bottom of the page, experience stories and a word of advice from senior mothers with small babies are written.

Further, in chapter of Things to Know, common occurrence with premature and LBW birth and Q&A of development of premature and LBW babies are explained softly in detail. Pages of introducing how little babies have grown big, thoughts from the grandparents and the siblings are there.



Figure 3. How to Record Development
 (Reference: Shizuoka Little Baby Handbook (English version))



Figure 4. Development Record
(Reference: Shizuoka Little Baby Handbook (English version))

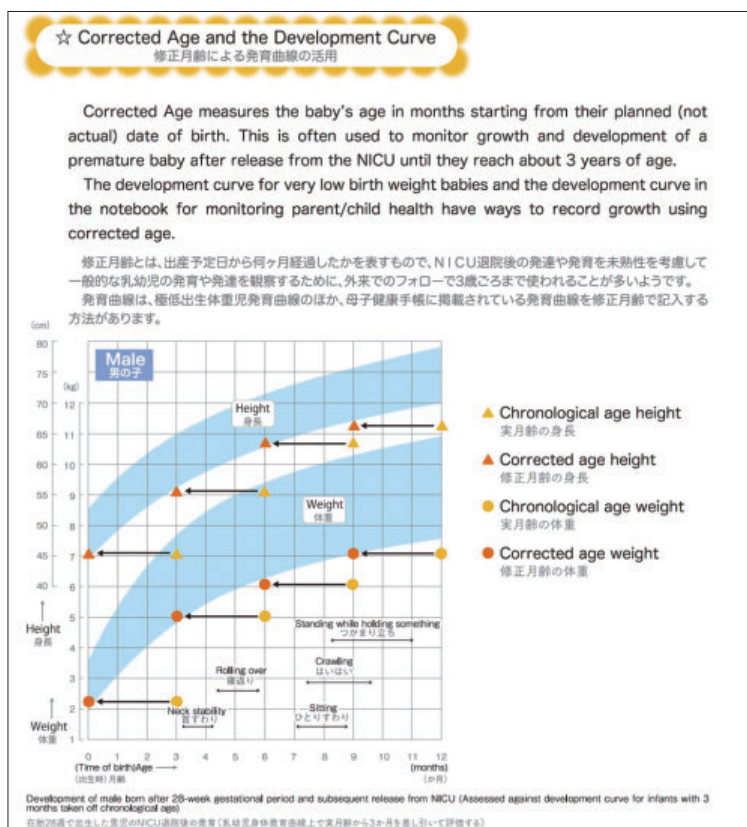


Figure 5. Corrected Age and Development Curve
(Reference: Sizuoka Little Baby Handbook (English version))

IV . Discussion

The MCH Handbook, which has been developed in Japan 80 years ago, was effective in reducing maternal and neonatal mortality at the time of its development. It is currently used in 40 countries around the world and is recommended by the World Medical Association for parent-child health management.

In Japan, the MCH Handbook can be said to be a symbol of childbirth and childcare.

Now that the level of medical care has reached the highest level in the world and it has become possible to give birth safely, the initial role has become smaller, and the role of presenting the latest and accurate information from the government for the promotion of maternal and child health has increased. The MCH Handbook, which is stipulated by law to be issued to those who have reported pregnancy and has one book for each child nationwide, has a solid existence. For that reason, there are also some issues.

First, there is the issue of sharing with caregivers who are not mothers. It is speculated that there are various patterns such as being raised by parents, being raised by fathers, being raised by same-sex couples, being raised by foster parents, and so on. The study group of the MCH Handbook in MHLW has proposed a policy that the name may be used together with the "Parent and Child Health Handbook." However, it can be said that it is necessary to consider how to evolve not only the name but also the content so that it can be shared among caregivers.

Secondly, there is the issue of whether it is acceptable to indicate the growth and development standards of Japanese children. If there is a delay in the child's growth and development, there is an advantage that the caregiver or medical staff can detect it early and respond early. However, as with LBW infants, it might be happened for the child to fall far off the line, have no scales to write numbers on, and feel that our country does not recognize the child (Bando 2021). There is a risk that parents repeatedly confirm their child is out of the standard. It is presumed that the MCH Handbook has a strong impact, and that the fact that the child is not applicable will cause a great deal of damage.

A third issue is that the appropriate information is not enough for children who are immature, sick or disabled. Somewhat limited information is available in the MCH Handbook, and caregivers must seek other resources for parenting information. It is hoped that the MCH Handbook will serve as a platform for information gathering, regardless of the child's condition.

The Shizuoka Little Baby Handbook will cover the areas that the MCH Handbook does not address and plays a significant role of parent-child health promotion and peer support for low LBW infants. Concerning the first issue, it clearly states that it is a Handbook for children and their parents. Secondly issue, the growth curve of LBW infants is presented and the graph is used with

the corrected age without comparison with the standard. Thirdly, it describes in detail the situations that often occur in LBW babies and the sources of counseling and support.

The Shizuoka Little Baby Handbook is currently available in 7 foreign languages, so that children born in Shizuoka Prefecture and their parents can receive support regardless of their nationality. On the other hand, the MCH Handbook is created in 10 languages so that foreigners can easily understand. The foreign language of Little Baby Handbook can be used together with that of MCH Handbook. It is presumed that these Handbooks will be useful for supporting foreign parents and children. Not only that, it is able to be said that the use of the Little Baby Handbook in addition to the MCH Handbook would make a profit for the World Health Promotion.

A limitation of this study is that an empirical research is not implemented in it. From now if the effects of using the Little Baby Handbook will be explored by empirical research, the spread of the Little Baby Handbook will likely progress further.

It can be said that this is a successful example in which the enthusiasm and dynamism of the people involved, with municipalities, brought good results. Using this as a precedent, it is hoped that handbooks, for use in addition to the MCH Handbook, will be developed in which children in various situations and their parents can obtain the information they wanted, and they can experience positive child-rearing.

V . Conclusion

Because of the MCH Handbook is a symbolic existence of childbirth and childcare in Japan, it sometimes would be able to cause damages to the parents when they conscious their infant deviates from the standard shown in it. It has been pointed that the parents of LBW infants might hesitate to express their feelings to others due to the self-guilt and might be unable to ask for support. Little Baby Handbook had developed for use in addition to the MCH Handbook. The Handbook, careful considerations are there from the parents who experienced the same situations, is speculated to be effective as a tool for parent-child health promotion and for peer support that helps parents of LBW infants and it may lead them to positive child-rearing.

VI . References

- Akemi Bando (2021) Support for families with small babies: Development and utilization of a Little Baby Handbook as a sub book of the Maternal and Child health Handbook. Japanese journal of pediatrics, 74(8), 1047-1052. [Japanese]
- HANDS (Specified non-profit corporation Health and Development Service) Little Baby Handbook, <https://www.hands.or.jp/activity/littlebabyhandbook/> (Accessed 7.11.2022) [Japanese]

- Kenzo Wake (1970) Significance of Maternal and Child Health Handbook from the viewpoint of public health and its problems. *Journal of Environmental Health and Preventive Medicine*, 25(2), 248-264. [Japanese]
- Low Birth Weight Infant Health Guidance Manual Community Support for Small Babies (2019), Investigation on how health guidance should be for small babies' research group Mizuho Information & Research Institute Co., Ltd. pp.1-19. [Japanese]
- Maternal and Child Health Handbook (English version), Support for premature babies, multiple births, foreigners, etc., Ministry of Health, Labor and Welfare Health, Information site for pregnancy, childbirth, and child-rearing healthy parent and child 21 (2nd)
<https://sukoyaka21.mhlw.go.jp/useful-tools/thema3/> (Accessed 7.11.2022)
- Maternal and Child Health Law (Law No. 141 of 1965)
<https://elaws.e-gov.go.jp/document?lawid=340AC0000000141> (Accessed 7.11.2022) [Japanese]
- Ministry of Health, Labor and Welfare, Annual changes in demographic overview (rate) 2022
https://www.mhlw.go.jp/toukei/saikin/hw/jinkou/kakutei21/dl/05_h2-2.pdf (Accessed 7.11.2022) [Japanese]
- Ministry of Health, Labor and Welfare, demographic survey 2022
<https://www.mhlw.go.jp/toukei/list/81-1.html> (Accessed 7.11.2022) [Japanese]
- Ministry of Health, Labor and Welfare, Information site for pregnancy, childbirth, and child-rearing healthy parent and child 21 (2nd)
<https://sukoyaka21.mhlw.go.jp/> (Accessed 7.11.2022) [Japanese]
- Ministry of Health, Labor and Welfare, Main Opinions of the Meeting to Hear Opinions on the Maternal and Child Health Handbook December 23, 2021.
<https://www.mhlw.go.jp/content/000872516.pdf> (Accessed 7.11.2022) [Japanese]
- Ministry of Health, Labor and Welfare, Review policy of Maternal and Child Health Handbook, Study Group on Mother and Child Health Handbook, Maternal and Child Health Information Interim Report, September 20, 2022.
<https://www.mhlw.go.jp/content/11908000/000991325.pdf> (Accessed 7.11.2022) [Japanese]
- Satomi Kobayashi (2021) Low birth weight infants (Special Issue: Peer Support for Children with Diseases) - (Actual Peer Support). *Pediatric Nursing*, 44(6), 684-689. [Japanese]
- Setsuko Morita (2000) Maternal and Child Health Handbook: Past and present. *Health Culture*, 26, 1-4. [Japanese]
- Shizuoka Little Baby Handbook Planning & Research Committee (2018) Shizuoka Little Baby Handbook - A Parenting Handbook for Mammies and Daddies of Low Birthweight Babies. Child Support Division, Parenting and Child Support Bureau, Health and Welfare Department, Shizuoka Prefecture. https://static.shizuokaebooks.jp/actibook_data/se2004037/

HTML5/pc.html (Accessed 7.11.2022)

Shizuoka Prefecture Official Homepage, Parenting and Child Support Bureau, Health and Welfare Department, Shizuoka Little Baby Handbook

https://www.pref.shizuoka.jp/kousei/ko-140/shizuoka_lbh.html (Accessed 7.11.2022)

[Japanese]

World Medical Association (2018) WMA Statement on the Development and Promotion of a Maternal and Child Health Handbook. Adopted by the 69th WMA General Assembly, Reykjavik, Iceland, October 2018.

<https://www.wma.net/policies-post/wma-statement-on-the-development-and-promotion-of-a-maternal-and-child-health-handbook/> (Accessed 7.11.2022)

Yasuhide Nakamura (2009) Maternal and Child Health Handbook Spreading Around the World (Mini Feature: Maternal and Child Health Handbook Spreading Around the World--A Message of Life Reaching the World). *Pediatric Clinical*, 62(5), 821-830. [Japanese]

Yasuko Koyanagi (2011) The process of forming standards for childcare method in Japan: Through the changes in Maternal and Child Health Handbooks. *Fukuoka University Research Department B: Social Science*, 4, 13-31. [Japanese]

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