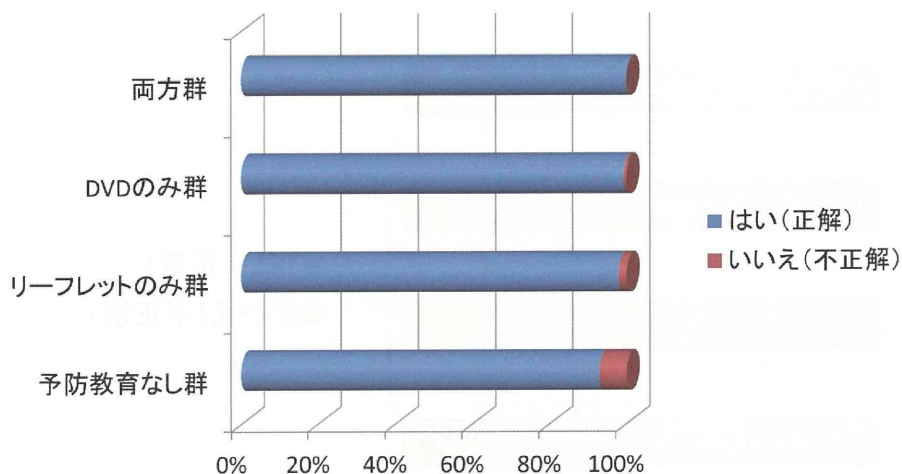


表4 茨城県における揺さぶられ症候群予防事業の効果に関するアンケート結果：揺さぶりの知識に関する介入の効果

④ 揺さぶられ症候群についてわかりましたか。

	はい（正解）	いいえ（不正解）	p
予防教育なし群	183 (92.9%)	14 (7.1%)	<0.001
リーフレットのみ群	469 (97.9%)	10 (2.1%)	
DVDのみ群	626 (99.2%)	5 (0.8%)	
両方群	131 (100%)	0(0%)	
全体	1409 (98.0%)	29 (2.0%)	



⑤ どんなに泣いても、決して赤ちゃんを揺さぶってはいけませんか。

	はい（正解）	いいえ（不正解）	p
予防教育なし群	188 (92.6%)	15 (7.4%)	<0.001
リーフレットのみ群	468 (97.5%)	12 (2.5%)	
DVDのみ群	626 (99.1%)	6 (1.0%)	
両方群	132 (100%)	0(0%)	
全体	1414 (97.2%)	33 (2.3%)	

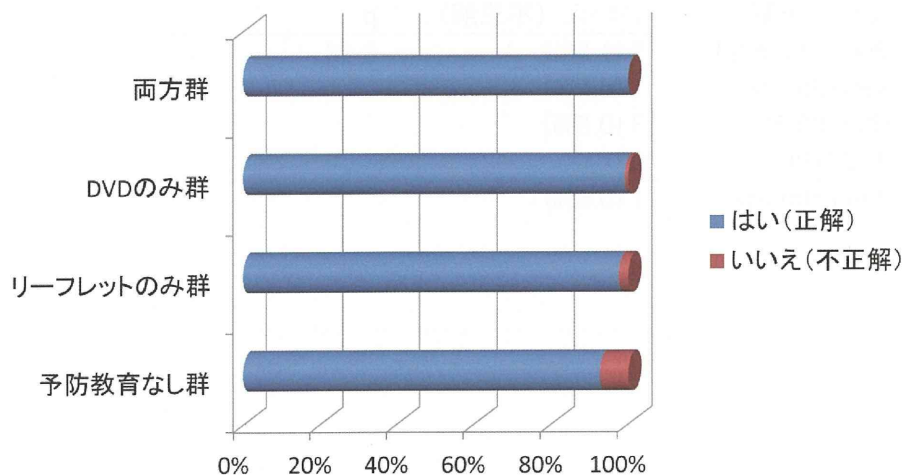
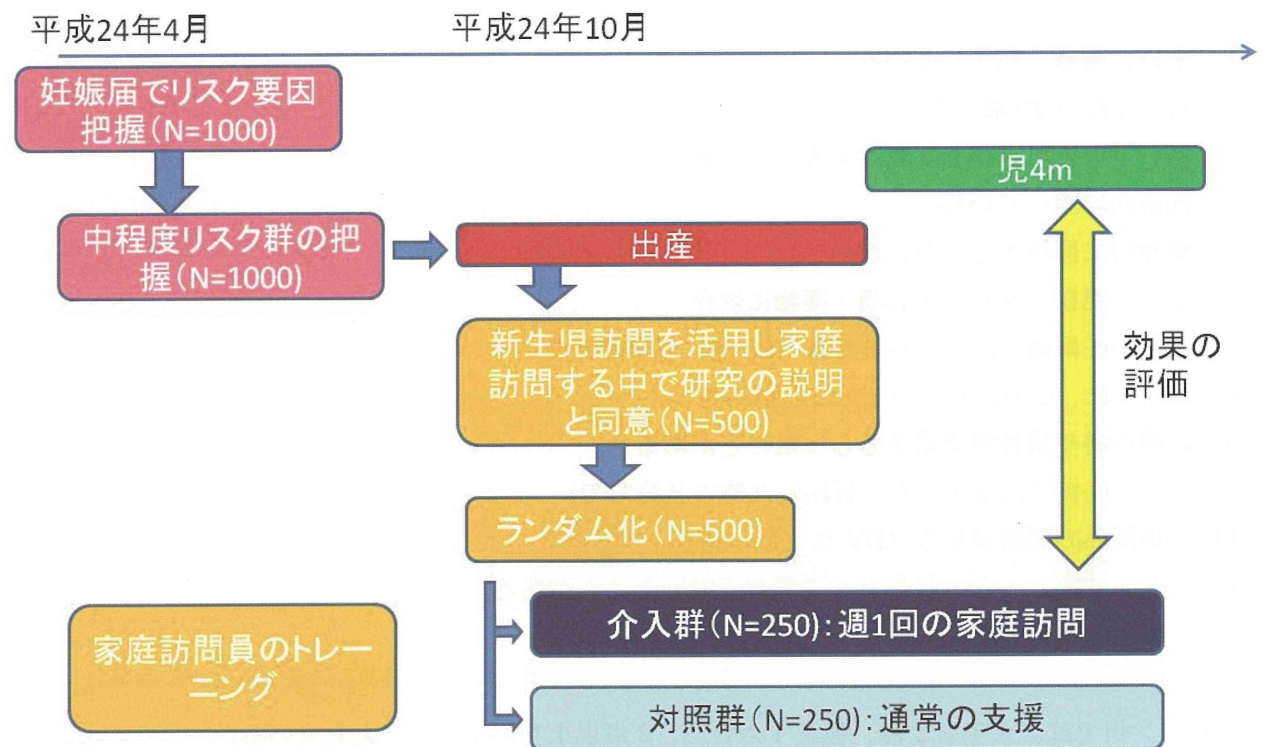


表5 愛知県における妊娠届出書によるハイリスクスクリーニング項目

1. 未婚、離婚、別居している
2. 母の年齢が19歳以下
3. パートナーに（ひとり親は本人に）定職がない
4. 経済的に困っている
5. 緊急時に連絡する人がいない
6. 過去か**現在**、タバコ・お酒・薬物に依存
7. 最初の妊婦健診が、妊娠6か月（20週）以降だった
8. 今までに、2回以上中絶したことがある
9. 心療内科や精神科で薬をもらったことがある
10. 望んだ妊娠ではなかった（妊娠した時の気持ちで）
11. 夫婦関係の問題がある（DVなど）
12. ここ1年間に、うつ状態が2週間以上続いたことがある
13. その他（ステップファミリー、多胎児など）

オレゴン州では、太字を2点、他を1点とし、2点以上をハイリスクとしている。

図1. ハイリスクアプローチによる虐待予防プログラムの評価に関する研究デザイン



Do home-visit programs for mothers with infants reduce parenting stress and increase social capital in Japan?

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ABSTRACT

Background Distress during child rearing is known as a risk factor for child maltreatment. In addition, it is known that social capital can be a preventive factor for child maltreatment. The purpose of this study is to evaluate whether the home-visit program reduces parenting stress and increases the social capital in the community.

Methods The home-visit program was implemented when the infants were 1–2 month of age (by public health nurses or midwives) and/or 4 months of age for those mothers who agreed to a home visit by trained community staff. Self-administered questionnaires on parenting stress scale and social capital were sent to all mothers who delivered a baby between August and November 2009 in two cities in the Aichi prefecture, Japan.

Results Among 936 mothers, 347 mothers (follow-up rate: 37%) completed both questionnaires. Scores on parenting stress scale scores at 4 months were lower than those at 1–2 months among the four groups (no home visit, home visit at 1–2 months, home visit at 4 months and both). The social trust scores at 4 months were higher than those at 1–2 months in every group; however, multivariate regression analysis showed that there were no differences in the reduction of the parenting stress scale scores and increase in social trust between the four groups.

Conclusion The home-visit program conducted once or twice by public health nurses or trained community staff for mothers with infants showed no substantial reduction in maternal stress and no increase in social trust.

INTRODUCTION

Addressing child maltreatment is a high-priority public health issue in Japan. Following the enactment of the Child Abuse Protection Law in Japan, the number of cases reported to the Child Guidance Center (which is analogous to the Child Protection Service in the UK or US) increased dramatically to a total of 40 639 cases in 2007. This number has increased by around 40-fold since 1990 (1101 cases) and by 1.7-fold since 2001 (23 274 cases).¹ One study reported that 65% of the mothers in Japan do not have confidence in their parenting abilities, 33% find parenting difficult and 18% believe that they maltreat their children.² This suggests that a substantial proportion of mothers in Japan experience parenting distress, which is a significant risk factor for child maltreatment.^{3,4}

A home-visit program can be an effective intervention to address parental needs. According to

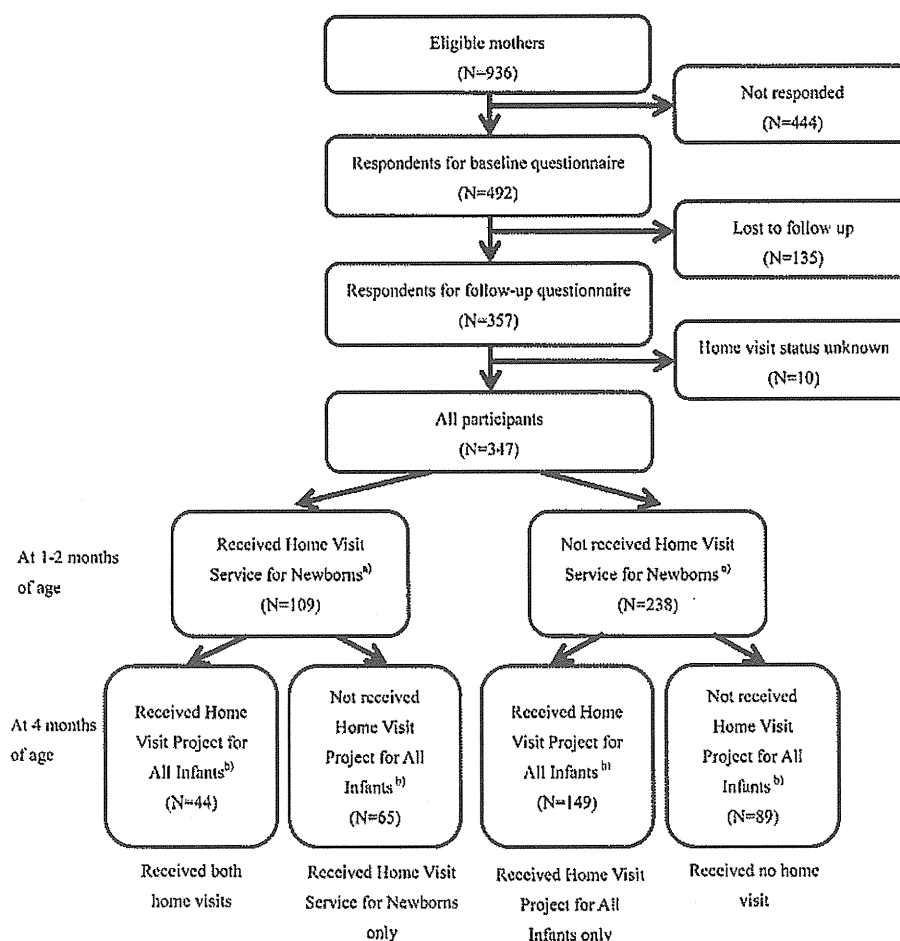
a review of 21 studies, home-visit programs for parents at risk of maltreating their children resulted in a 40% reduction in child maltreatment outcomes among the program participants compared with those who did not participate in a home-visit programme.⁵ This intervention was considered effective since it provided parents with information on child health and development and enabled them to develop problem-solving skills.⁶

In Japan, a home-visit program, 'Home Visit Service for Newborns', has existed since 1961 for 'mothers in need' with newborns, based on the Maternal and Child Health Act; visits are conducted by a public health nurse or midwife following discharge from the maternity ward. In this home-visit program, the nurse or midwife instructs mothers in need (eg, mothers with premature infants) on how to take care of the infants. Some municipalities have expanded this program to all mothers who expressed interest in the service when infants were 1–2 months of age.

It has been argued that child death cases attributable to maltreatment could occur in low-risk families, and most child deaths occur before the age of 4 months. Thus, as a parenting strategy and under the Child Welfare Law, the Ministry of Health, Labour and Welfare initiated the Home Visit Project for All Infants (Konnichiwa Akachan Jigyo) in 2007 in which trained community staff visit all families with infants younger than 4 months of age to focus on parenting stress and share information to aid parenting. This home-visit program was designed to be the point of first contact between mothers and their infants with the community. By fostering social connections, the home-visit program could be considered to be a 'social capital' intervention because the program provides mothers with greater access to social services and other resources in the community.⁶

Social capital is defined as the resources that individuals can access through their social connections to others. The resources available through social networks can take several distinct forms, including a) levels of trust between individuals, b) reciprocity exchanges and c) ability to undertake coordinated collective action. For example, a community with high social capital is one in which members frequently exchange favours for one another. These reciprocity exchanges in turn hinge on high levels of interpersonal trust (ie, trust that a recipient of a good deed will return the favour in the future). Therefore, a mother who received

Figure 1 Flow chart of sample selection and allocation to four home-visit groups.



- a) Home Visit Service for Newborns target mothers in need of help at 1–2 month of age, visited by public health nurse or midwife.
- b) Home Visit Project for All Infants target for all infants until 4 month of age, visited by trained community staff, but some mothers can not receive the project due to absent from home.

a home-visit program might enhance her cognitive social capital, such as social trust.

Thus, the purpose of this study is to evaluate whether the home-visit program implemented by public health nurses or midwives at 1–2 months of age (Home Visit Service for Newborn) and home-visit program implemented by trained community staff until 4 months of age (Home Visit Project for All Infants) reduces parenting stress and increases perceptions of social capital in the community.

METHODS

Sample

The target subjects were all mothers (N=936) who had delivered a baby between August and November 2009 in Komaki and Inazawa Cities in Aichi prefecture, located in central Japan. Komaki City is located in a suburban area, north of Nagoya City, with a population of around 153 000 with around 1400 births per year. Inazawa City is located in a suburban area, north-west of Nagoya City, with a population of around 138 000 and around 1200 births per year. A baseline questionnaire was mailed directly to the target mothers, not distributed at the home visit, when the infants were 2–4 weeks of age, and a follow-up questionnaire was administered during a health check-up at

4 months of age. In total, baseline questionnaires were mailed to 932 mothers (four were returned with addressee unknown), of whom 492 responded (response rate: 53%). Among these, 357 mothers responded to the follow-up questionnaire (response rate among baseline respondents: 73%). Our study was approved by the Ethics Committee at National Institute for Public Health which determined that response to the questionnaire implied consent to participate in the study.

Home-visit programs

In both cities, there were two home-visit programs for newborn infants. The first program was Home Visit Service for Newborns, when infants were 1–2 months of age, wherein visits were conducted by a public health nurse or midwife for mothers with preterm infants with low birth weight and mothers who expressed interest in the service. Home Visit Service for Newborn is widely known among pregnant women, and those who expressed interest in the service are supposed to apply to their local public health centre. Approximately 19% and 13% of the newborns were visited in this home-visit service in Komaki and Inazawa Cities, respectively. The second program was part of Home Visit Project for All Infants, which arranges visits before the infants are 4 months of age. In both cities, all

Table 1 Characteristics of sample (N=347)

	Received no home visit (N=89, 26%)		Received home-visit service for newborn* only (N=65, 19%)		Received home-visit project for all infants† only (N=149, 43%)		Received both home-visit projects‡ (N=44, 13%)		p Value
	N	%	N	%	N	%	N	%	
Maternal characteristics									
Mother's age (years)									
<24	7	7.9	6	9.2	7	4.7	3	6.8	0.016
25–29	29	32.6	30	46.2	32	21.5	14	31.8	
30–34	36	40.5	21	32.3	78	52.4	17	38.6	
35+	16	18.0	6	9.2	32	21.5	10	22.7	
Missing	1	1.1	2	3.1	0	0.0	0	0.0	
Working status before or during pregnancy									
House wife	37	41.6	26	40.0	58	38.9	13	29.6	0.73
Part-time working	16	18.0	13	20.0	30	20.1	13	29.6	
Full-time working	35	39.3	22	33.9	61	40.9	18	40.9	
Missing	1	1.1	4	6.2	0	0.0	0	0.0	
Current working status									
Working	2	2.3	1	1.5	5	3.4	0	0.0	0.59
Not working	87	97.8	64	98.5	144	96.6	44	100.0	
Child's characteristics									
Sex									
Girl	49	55.1	25	38.5	64	43.0	19	43.2	0.17
Boy	40	44.9	40	61.5	85	57.0	25	56.8	
Infant's age at first survey (week)									
<4	12	13.5	8	12.3	28	18.8	9	20.5	0.27
4 to <8	53	59.6	44	67.7	100	67.1	27	61.4	
8+	24	27.0	13	20.0	21	14.1	8	18.2	
Infant's age at second survey (week)									
<16	26	29.2	15	23.1	29	19.5	6	13.6	0.12
16 to <20	56	62.9	44	67.7	96	64.4	32	72.7	
20+	5	5.6	6	9.2	24	16.1	6	13.6	
Missing	2	2.3	0	0.0	0	0.0	0	0.0	
Preterm birth									
<37	1	1.1	1	1.5	5	3.7	2	4.6	0.56
37+	88	98.9	64	98.5	144	96.6	42	95.5	
Low birth weight									
<2500	7	7.9	4	6.2	11	7.4	6	13.6	0.52
2500+	82	92.1	61	93.9	138	92.6	38	86.4	
Family characteristics									
Number of children									
1	43	48.3	37	56.9	55	36.9	27	61.4	0.031
2	33	37.1	21	32.3	69	46.3	13	29.6	
3+	12	13.5	5	7.7	25	16.8	4	9.1	
Missing	1	1.1	2	3.1	0	0.0	0	0.0	
Type of house									
Detached house	37	41.6	26	40	86	57.7	18	40.9	0.026
Apartment/condominium building	51	57.3	37	56.9	62	41.6	26	59.1	
Missing	1	1.1	2	3.1	1	0.7	0	0.0	
Location									
I city	56	62.9	51	78.5	63	42.3	11	25.0	<0.001
K city	33	37.1	14	21.5	86	57.7	33	75.0	
Length of living in the current city (year)									
<10	63	70.8	46	70.8	97	65.1	32	72.3	0.75
10 to <20	6	6.7	2	3.1	10	6.7	3	6.8	
20+	18	20.2	15	23.1	42	28.2	9	20.5	
Missing	2	2.3	2	3.1	0	0.0	0	0.0	
Living with grandmother, grandfather or relatives									
Yes	15	16.9	11	16.9	30	20.1	10	22.7	0.81
No	74	83.1	54	83.1	119	79.9	34	77.3	

Continued

Table 1 Continued

	Received no home visit (N=89, 26%)		Received home-visit service for newborn* only (N=65, 19%)		Received home-visit project for all infants† only (N=149, 43%)		Received both home-visit projects‡ (N=44, 13%)		p Value
	N	%	N	%	N	%	N	%	
Subjective economic status									
Stable	18	20.2	14	21.5	49	32.9	14	31.8	0.17
Fairly stable	51	57.3	36	55.4	67	45	20	45.5	
Barely maintaining	15	16.9	6	9.2	22	14.8	9	20.5	
Struggling	4	4.5	7	10.8	11	7.4	1	2.3	
Missing	1	1.1	2	3.1	0	0.0	0	0.0	

Values in bold are significant (p) at the 0.05 level.

*Home-visit service for newborns targets mothers in need of help at 1–2 months of age, visited by public health nurses or midwives.

†Home-visit project for all infants targets all infants until 4 month of age, visited by trained community staff.

‡Mothers who received both home-visit service for newborns and home-visit project for all infants.

the infants were supposed to be visited by trained community staff when they were around 4 months of age. However, some infants were not visited, mainly due to absence from home (eg, cases in which the infant was delivered and raised in the grandmother's hometown for the first several months, so the grandmother could help the mother out), and also partially due to inability to communicate because of a language barrier (ie, the mother was a non-Japanese speaker).

The contents of Home Visit Service for Newborns include (1) a health check-up for the newborn (measuring weight and head circumference; checking for feeding, stool or urination problems) and the mother (measuring blood pressure, checking lochia and breast excretion status) and (2) consultation on parenting in general. Home Visit Service for Newborns does not include intervention elements intended to directly to reduce maternal stress, but through teaching infant care skills, we may expect that maternal stress will be reduced. Further, the home visit assists mothers with infants to establish connections with their local public health centre, which may in turn boost social capital. Home Visit Project for All Infants includes (1) listening to maternal anxiety or distress about parenting, (2) information sharing on parenting support system, (3) check-up on maternal and child health status and home environment and (4) making connections with relevant sectors for families in need. In short, the home-visit project sought to increase social capital by establishing connections between local lay volunteers and mothers with infants. Maternal stress care was not part of the visit; however, the home visitor was instructed to look for signs of maternal distress. Thus, both home-visit programs could be considered to incorporate elements that helped to relieve maternal stress and build social capital.

The visitors are different across the two home visits. Visitors in Home Visit Service for Newborns are public health nurses or midwives, who graduated from a 4-year professional school for nurses, public health nurses and midwives and passed each national exam. On the other hand, visitors to Home Visit Project for All Infants are trained community staff selected from among those who already work as health promotion workers (*hoken-renraku-in*, in Komaki) and child welfare promotion workers (*jido-iin*, in Inazawa), as well as those who were taking care of children as volunteers. Furthermore, the trained community staff received around 8 h of specific training to prepare for the visit. The trained community staff was unpaid for this work. Approximately 89% and 84% of the infants were, respectively, visited as part of Home Visit Project for All Infants in Komaki and Inazawa Cities. Inazawa city did

not implement a home-visit program by trained community staff if the mother participated in Home Visit Service for Newborns.

Measurement of parenting stress and social capital

Parenting stress was assessed using the parenting stress scale.⁷ This scale aims to measure parenting stress when infants are 6 months of age and was developed on the basis of the process model,⁸ in which child behaviours perceived as problematic were considered as child-related stress and maternal adaptability to respond to the problems was considered as mother-related stress. Child-related stress and mother-related stress comprised of 12 and 10 items assessed using a four-point Likert scale, and Cronbach's α coefficient was 0.86 and 0.90, respectively.

Social capital was measured in two dimensions: social trust and sense of security in the community. Social trust and sense of security were each assessed by a single question, with responses on a four-point Likert scale. Similar questions were used in previous studies.^{9, 10}

In addition, emotional support from other than family member was also assessed using the perceived emotional support scale, which has good internal reliability (Cronbach's α coefficient: 0.92) and good validity (Pearson's correlation coefficient: 0.34), according to the General Health Questionnaire.¹¹ In this scale, the question 'Do you have anyone around you other than family?' was asked for 10 items (eg, a person who you feel comfortable with and relax when you meet with, a person who appreciates you, a person who you can disclose your feelings to, etc) with a yes or no response, and if the sum of the responses ('Yes' = 1 and 'No' = 0) was eight or more, the respondents were considered to have at least one person who appreciated and loved her, according to her perception.¹¹

Covariates

The following possible covariates were obtained from the baseline questionnaire: mother's age, working status before or during pregnancy, current working status, child's gender, child's age at baseline and follow-up survey, preterm birth, low birth weight, number of children in the family, type of house, duration of stay in the city, living with relatives (eg, grandmother or grandfather) and subjective economic status. Subjective economic status was assessed using a four-point Likert scale as follows: stable, fairly stable, barely managing and struggling, developed on the basis of a previous study.¹²

Analysis

Among the 357 respondents to the follow-up questionnaire, 10 did not respond to the question on home-visit program

Table 2 Association between sample characteristics and parenting stress scale and social capital at baseline

	Parenting stress scale (total)			Child-related stress scale			Mother-related stress scale		
	Mean (SD)	F	p Value	Mean (SD)	F	p Value	Mean (SD)	F	p Value
Maternal characteristics									
Mother's age (years)									
<24	34.2 (7.4)	0.40	0.75	20.2 (4.5)	0.58	0.63	14.0 (3.7)	2.18	0.090
25–29	35.5 (8.2)			20.4 (5.3)			15.1 (4.2)		
30–34	36.2 (8.9)			20.3 (5.5)			15.9 (4.3)		
35+	35.6 (9.4)			19.4 (5.4)			16.2 (4.8)		
Working status before or during pregnancy									
House wife	34.7 (9.0)	1.67	0.19	19.2 (5.3)	3.18	0.043	15.5 (4.5)	0.48	0.62
Part-time working	36.6 (8.6)			20.5 (5.5)			16.1 (4.3)		
Full-time working	36.4 (8.4)			20.8 (5.2)			15.6 (4.2)		
Current working status									
Working	33.2 (7.6)	0.75	0.39	18.4 (3.3)	0.92	0.34	14.8 (4.7)	0.29	0.59
Not working	35.9 (8.7)			20.2 (5.5)			15.6 (4.3)		
Child's characteristics									
Sex									
Girl	34.8 (8.2)	3.83	0.051	19.6 (5.3)	3.34	0.069	15.2 (4.2)	2.72	0.10
Boy	36.6 (9.0)			20.7 (5.5)			16.0 (4.4)		
Infant's age at first survey (week)									
<4	34.6 (8.9)	0.66	0.52	19.8 (5.4)	0.24	0.79	14.9 (4.5)	1.26	0.29
4 to <8	36.0 (8.7)			20.3 (5.4)			15.7 (4.3)		
8+	36.3 (8.7)			20.2 (5.4)			16.1 (4.3)		
Infant's age at second survey (week)									
<16	35.9 (9.0)	0.01	0.99	20.4 (5.7)	0.07	0.93	15.6 (4.4)	0.03	0.97
16 to <20	35.8 (8.8)			20.2 (5.5)			15.6 (4.4)		
20+	35.7 (8.2)			20.0 (4.6)			15.8 (4.2)		
Preterm birth									
<37	43.3 (15.3)	6.96	0.009	24.2 (8.6)	5.01	0.026	19.2 (7.0)	6.25	0.013
37+	35.6 (8.4)			20.1 (5.3)			15.5 (4.2)		
Low birth weight									
<2500	36.8 (11.6)	0.34	0.56	21.1 (6.8)	0.83	0.36	15.7 (5.4)	<0.001	0.97
2500+	35.7 (8.4)			20.1 (5.3)			15.6 (4.2)		
Family characteristics									
Number of children									
1	37.9 (8.4)	13.1	<0.001	21.9 (5.2)	22.6	<0.001	15.9 (4.2)	2.79	0.063
2	34.7 (8.5)			19.1 (4.9)			15.7 (4.5)		
3+	31.3 (7.8)			17.0 (4.9)			14.2 (4.3)		
Type of house									
Detached house	34.3 (8.6)	8.53	0.004	18.9 (5.3)	16.4	<0.001	15.4 (4.4)	0.76	0.38
Apartment/ condominium building	37.0 (8.5)			21.1 (5.2)			15.8 (4.3)		
Location									
I city	36.3 (9.1)	1.19	0.28	20.3 (5.6)	0.09	0.77	16.0 (4.4)	3.34	0.069
K city	35.3 (8.3)			20.1 (5.2)			15.2 (4.2)		
Length of living in the current city (year)									
<10	35.9 (8.5)	0.48	0.62	20.2 (5.2)	0.41	0.67	15.7 (4.3)	0.48	0.62
10 to <20	33.9 (9.0)			19.2 (5.6)			14.8 (4.0)		
20+	35.8 (9.1)			20.3 (5.9)			15.5 (4.6)		
Living with grandmother, grandfather or relatives									
Yes	34.6 (8.8)	1.69	0.19	19.1 (5.3)	3.31	0.070	15.5 (4.5)	0.12	0.73
No	36.1 (8.7)			20.4 (5.4)			15.7 (4.3)		
Subjective economic status									
Stable	33.7 (8.0)	3.09	0.027	18.9 (5.2)	2.87	0.036	14.8 (4.0)	2.11	0.099
Fairly stable	36.9 (8.9)			20.8 (5.4)			16.1 (4.5)		
Barely maintaining	35.2 (8.8)			20.0 (5.4)			15.1 (4.3)		
Struggling	37.0 (8.2)			21.0 (5.4)			16.0 (4.3)		
Social trust									
Not at all	39.5 (8.6)	7.46	<0.001	22.0 (5.4)	5.55	0.001	17.1 (4.6)	6.33	<0.001
Rarely	37.4 (8.6)			21.1 (5.5)			16.4 (4.4)		
Some	34.5 (8.5)			19.5 (5.3)			15.0 (4.1)		
Very	31.9 (7.4)			18.1 (4.6)			13.8 (3.7)		

Continued

Table 2 Continued

	Parenting stress scale (total)			Child-related stress scale			Mother-related stress scale		
	Mean (SD)	F	p Value	Mean (SD)	F	p Value	Mean (SD)	F	p Value
Sense of security									
Not at all	38.4 (10.5)	6.36	<0.001	20.2 (5.9)	5.09	0.002	18.2 (5.3)	5.67	<0.001
Rarely	38.3 (8.6)			21.7 (5.4)			16.7 (4.4)		
Some	36.0 (8.6)			20.3 (5.4)			15.7 (4.3)		
Very	32.0 (7.7)			18.1 (4.9)			14.0 (3.7)		
Perceived emotional support scale from others									
<7	37.6 (9.2)	7.02	0.008	21.1 (5.7)	4.44	0.036	16.5 (4.7)	7.26	0.007
8+	34.9 (8.4)			19.7 (5.3)			15.2 (4.1)		

Values in bold are significant at the $p=0.05$ level.

status, resulting in a final sample size of $n=347$ (follow-up rate among target population, 37%). The participants were divided into four groups on the basis of home-visit status, as follows: did not receive a home visit ($n=89$, 26%), received one home visit conducted by a public health nurse or midwife when the infant was 1–2 months of age (ie, took part in Home Visit Service for Newborns only) ($n=65$, 19%), received one home visit conducted by a trained community staff person when the infant was around 4 months of age (ie, took part in Home Visit Project for All Infants) ($n=149$, 43%) and received both home visits ($n=44$, 13%) (figure 1). First, demographic data and other characteristics were compared between the four groups using the χ^2 test. Second, an association between the demographic data and other characteristics, social capital indicators and parenting stress was investigated using analysis of variance (ANOVA). Finally, the differences in parenting stress and social capital indicators at baseline and follow-up were assessed using the paired t test, and differences among the four groups were assessed using multivariate regression analysis, after adjusting for potential covariates and baseline values.

RESULTS

Participants' characteristics are listed in table 1. A few differences were found. Mothers who received Home Visit Service for Newborns only were younger than mothers in the other groups ($p=0.016$). Mothers who received Home Visit Project for All Infants only predominantly lived in detached houses ($p=0.026$). Characteristics such as the duration of stay in the city, living with relatives (eg, grandmother, grandfather or others) and subjective economic status did not differ between the groups.

The association between maternal, child and family characteristics and the parenting stress scale scores is given in table 2. Having a boy or a preterm infant or having larger number of children, living in an apartment or condominium building or lower subjective economic status were associated with higher parenting stress. Furthermore, social trust and sense of security showed a significant inverse association with parenting stress ($p<0.001$).

The association between maternal, child and family characteristics and social capital indicators is given in table 3. Older women, being housewives before and during pregnancy, having larger number of children or living in detached houses showed higher social trust or sense of security. Further, mothers who were struggling showed less social trust and sense of security than those who felt stable ($p<0.01$ for both).

The effects of the home-visit programs on parenting stress and social capital indicators are listed in table 4. ANOVA indicated significant differences between groups in the baseline and follow-up scores for parental distress. However, there was no

statistically significant difference in the *change* in parental distress between different groups ($p=0.43$). The multivariable regression analyses similarly did not indicate statistically significant differences between groups. Similarly, child-related parenting stress and maternal stress were significantly reduced in the follow-up survey; however, group differences were not observed.

Social trust was significantly increased only in the group that received Home Visit Service for Newborns only (2.58 vs 2.29, 95% CI 0.07 to 0.46). The increment was compared between the groups using ANOVA and multivariate analysis, and no difference was observed ($p=0.14$). Sense of security was significantly increased only in the group that received Home Visit Project for All Infants only. No significant differences between groups were observed using ANOVA and multivariate analysis ($p=0.35$). The percentage of mothers with a high score on the perceived emotional support scale increased in every group; however, the increment was not significantly different between the groups.

DISCUSSION

This study revealed that, in Japan, compared with mothers who did not participate in home-visit programs, mothers who participated in home-visit programs conducted by public health nurses or midwives at 1–2 months after delivery and/or for all infants by trained community staff until 4 months after delivery did not show significant reduction in parenting stress. Similarly, social capital indicators were higher among women who participated in home-visit programs, but the increase over time was not significantly different compared with those who did not participate in home-visit programs. This finding suggests that current form of home-visit programs for mothers with infants in Japan failed to increase those mothers' social capital.

Previous studies have reported the impact of home-visit programs on the social support for mothers. Marcenko and Spence¹³ reported that home-visit programs for women at risk of out-of-home placement of their newborns resulted in increased social support and greater access to services. However, McCurdy¹⁴ reported that home-visit programs for disadvantaged mothers who gave birth in Hawaii did not foster social support when the infant became 12 months of age. Similarly, it was also reported that a home-visit intervention delivered by a paraprofessional for American Indian mothers did not result in a change in social support.¹⁵ Although social support and social capital are not the same, our findings add to the literature that home-visit programs for high-risk and low-risk mothers do not result in increase in social capital.

To the best of our knowledge, this study is the first attempt to evaluate the impact on social capital of home-visit programs for

Table 3 Association between sample characteristics and social capital and emotional support at baseline

	Social trust			Sense of security			Perceived emotional support scale			
	Mean (SD)	F	p Value	Mean (SD)	F	p Value	≤7, N (%)	≥8, N (%)	χ ²	p Value
Maternal characteristics										
Mother's age (years)										
<24	2.25 (0.79)	2.64	0.049	2.89 (0.61)	0.88	0.45	7 (7.3)	17 (6.9)	1.77	0.62
25–29	2.39 (0.93)			2.93 (0.68)			26 (27.1)	76 (30.7)		
30–34	2.60 (0.78)			3.00 (0.69)			41 (42.7)	113 (45.6)		
35+	2.63 (0.78)			2.85 (0.71)			22 (22.9)	42 (16.9)		
Working status before or during pregnancy										
House wife	2.68 (0.87)	8.28	<0.001	3.07 (0.69)	5.79	0.001	34 (35.4)	103 (41.9)	1.34	0.51
Part-time working	2.64 (0.66)			3.01 (0.62)			20 (20.8)	50 (20.3)		
Full-time working	2.31 (0.84)			2.78 (0.69)			42 (43.8)	93 (37.8)		
Current working status										
Working	2.88 (0.83)	1.46	0.23	3.25 (0.46)	1.61	0.21	3 (3.1)	5 (2.0)	0.37	0.54
Not working	2.51 (0.83)			2.94 (0.69)			94 (96.9)	245 (98.0)		
Child's characteristics										
Sex										
Girl	2.57 (0.79)	0.89	0.34	2.98 (0.66)	0.74	0.39	42 (43.3)	113 (45.2)	0.10	0.75
Boy	2.48 (0.87)			2.92 (0.70)			55 (56.7)	137 (54.8)		
Infant's age at first survey (week)										
<4	2.68 (0.76)	1.61	0.20	3.09 (0.61)	2.58	0.077	14 (14.4)	42 (16.8)	0.33	0.85
4 to <8	2.51 (0.87)			2.95 (0.69)			64 (66.0)	158 (63.2)		
8+	2.42 (0.76)			2.81 (0.71)			19 (19.6)	50 (20.0)		
Infant's age at second survey (week)										
<16	2.54 (0.94)	0.51	0.60	3.04 (0.65)	1.42	0.24	26 (27.1)	53 (21.4)	1.76	0.42
16 to <20	2.50 (0.78)			2.90 (0.68)			61 (63.5)	163 (65.7)		
20+	2.64 (0.91)			3.02 (0.75)			9 (9.4)	32 (12.9)		
Preterm birth										
<37	2.11 (0.78)	2.26	0.13	2.89 (0.60)	0.07	0.80	1 (1.0)	8 (3.2)	1.30	0.25
37+	2.53 (0.83)			2.95 (0.69)			96 (99.0)	242 (96.8)		
Low birth weight										
<2500	2.36 (0.83)	1.20	0.28	2.86 (0.76)	0.52	0.47	9 (9.3)	19 (7.6)	0.27	0.61
2500+	2.54 (0.83)			2.95 (0.66)			88 (90.7)	231 (92.4)		
Family characteristics										
Number of children										
1	2.31 (0.82)	10.6	<0.001	2.83 (0.60)	5.46	0.005	47 (49.0)	114 (46.0)	0.26	0.88
2	2.67 (0.82)			3.00 (0.74)			37 (38.5)	100 (40.3)		
3+	2.79 (0.81)			3.17 (0.73)			12 (12.5)	34 (13.7)		
Type of house										
Detached house	2.70 (0.79)	15.9	<0.001	3.05 (0.72)	8.49	0.004	42 (44.2)	120 (48.4)	0.48	0.49
Apartment/ condominium building	2.35 (0.85)			2.84 (0.64)			53 (55.8)	128 (51.6)		
Location										
I city	2.49 (0.84)	0.74	0.39	2.96 (0.67)	0.23	0.64	50 (51.6)	133 (53.2)	0.08	0.78
K city	2.56 (0.83)			2.93 (0.70)			47 (48.5)	117 (46.8)		
Length of living in the current city (year)										
<10	2.45 (0.83)	1.52	0.22	2.95 (0.68)	0.18	0.84	70 (72.9)	166 (67.2)	3.52	0.17
10 to <20	2.43 (0.93)			2.86 (0.79)			8 (8.3)	13 (5.3)		
20+	2.65 (0.83)			2.94 (0.68)			18 (18.8)	68 (27.5)		
Living with grandmother, grandfather or relatives										
Yes	2.54 (0.75)	0.03	0.87	2.93 (0.70)	0.08	0.78	17 (17.5)	46 (18.4)	0.04	0.85
No	2.52 (0.85)			2.95 (0.68)			80 (82.5)	204 (81.6)		
Subjective economic status										
Stable	2.79 (0.79)	5.07	0.002	3.13 (0.67)	4.40	0.005	18 (18.8)	79 (31.9)	6.22	0.10
Fairly stable	2.44 (0.82)			2.91 (0.64)			54 (56.3)	117 (47.2)		
Barely maintaining	2.39 (0.82)			2.77 (0.74)			16 (16.7)	38 (15.3)		
Struggling	2.27 (0.94)			2.77 (0.81)			8 (8.3)	14 (5.7)		

Values in bold are significant at the p=0.05 level.

mothers with infants. The lack of an effect of the home-visit programs for mothers with infants needs careful interpretation. First, Home Visit Service for Newborns is not intended to increase social capital; rather, it is intended to support infant care among mothers who need help. Nonetheless, it is inter-

esting that mothers who received Home Visit Service for Newborns showed significantly higher social trust at 4 months, while mothers who received Home Visit Project for All Infants did not show an increase. This is probably because mothers visited by a public health nurse or midwife in Home Visit Service

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Table 4 Effects of home visit on parenting stress, social capital and perceived emotional support from others

	Pair-analysis				Multivariate*	
	Baseline (mean, SD)	Follow-up (mean, SD)	Difference	95% CI	β	95% CI
Parenting stress total						
No-home visit	35.1 (8.3)	33.6 (9.0)	-1.54	-3.17 to 0.09	Reference	
Home-visit service for newborn only	39.3 (8.1)	37.4 (9.6)	-1.99	-3.86 to -0.12	1.16	-1.25 to 3.57
Home-visit project for all infants only	34.3 (9.0)	32.5 (9.1)	-1.74	-2.86 to -0.62	-0.50	-2.44 to 1.43
Both home-visit projects	38.0 (7.4)	34.4 (8.9)	-3.67	-6.01 to -1.27	-1.33	-4.01 to 1.34
p for ANOVA	<0.001	0.006	0.43			
Child-related parenting stress						
No home visit	20.1 (5.0)	18.9 (5.5)	-1.24	-2.24 to -0.24	Reference	
Home-visit service for newborn only	22.3 (5.4)	20.6 (5.4)	-1.72	-2.97 to -0.48	0.67	-0.78 to 2.12
Home-visit project for all infants only	19.2 (5.5)	18.1 (5.3)	-1.09	-1.86 to -0.32	-0.02	-1.19 to 1.15
Both home-visit projects	21.1 (5.1)	18.7 (5.1)	-2.40	-3.73 to -1.07	-0.61	-2.22 to 1.01
p for ANOVA	0.001	0.025	0.40			
Mother-related parenting stress						
No home visit	15.0 (4.0)	14.7 (4.2)	-0.30	-1.19 to 0.59	Reference	
Home-visit service for newborn only	17.1 (4.2)	16.8 (5.1)	-0.27	-1.24 to 0.71	0.72	-0.53 to 1.98
Home-visit project for all infants only	15.1 (4.5)	14.4 (4.5)	-0.65	-1.20 to -0.11	-0.55	-1.56 to 0.45
Both home-visit projects	16.9 (3.6)	15.7 (4.5)	-1.27	-2.59 to 0.05	-0.70	-2.09 to 0.70
p for ANOVA	0.001	0.004	0.50			
Social trust						
No home visit	2.40 (0.81)	2.52 (0.76)	0.11	-0.02 to 0.24	Reference	
Home-visit service for newborn only	2.29 (0.93)	2.58 (0.79)	0.27	0.07 to 0.46	0.15	-0.05 to 0.35
Home-visit project for all infants only	2.75 (0.76)	2.82 (0.79)	0.06	-0.03 to 0.16	0.06	-0.10 to 0.22
Both home-visit projects	2.30 (0.79)	2.32 (0.77)	0.02	-0.16 to 0.20	-0.12	-0.34 to 0.10
p for ANOVA	<0.001	<0.001	0.14			
Sense of security						
No home visit	2.93 (0.64)	2.89 (0.75)	-0.04	-0.20 to 0.11	Reference	
Home-visit service for newborn only	2.97 (0.78)	2.95 (0.74)	-0.02	-0.20 to 0.17	0.11	-0.09 to 0.31
Home-visit project for all infants only	3.04 (0.67)	3.14 (0.63)	0.10	0.01 to 0.20	0.11	-0.05 to 0.27
Both home-visit projects	2.68 (0.67)	2.73 (0.79)	0.05	-0.14 to 0.23	-0.08	-0.30 to 0.14
p for ANOVA	0.025	0.002	0.35			
	Before (N, %)	After (N, %)	Difference (%)	95% CI		
Perceived emotional support scale from others (score 8+)						
No home visit	61 (69.3)	66 (75.9)	4.7	-3.3 to 12.6	Reference	
Home-visit service for newborn only	43 (70.5)	48 (76.2)	6.8	-2.7 to 16.3	1.97	0.61 to 6.38
Home-visit project for all infants only	110 (74.8)	118 (81.4)	7.7	0.8 to 14.5	1.35	0.52 to 3.51
Both home-visit projects	29 (70.7)	33 (78.6)	10	0.3 to 19.7	2.01	0.50 to 8.18
p for χ^2 test	0.80	0.74	0.89			

Values in bold are significant at the $p=0.05$ level.

*Adjusted for mother's age, working status when pregnant, child's sex, child's age (week), preterm, number of children at home, type of house, city, duration of years living in the current city, living with relatives, subjective socioeconomic status, parenting stress scale at 1 month, social trust at 1 month, sense of security at 1 month, perceived emotional support from others at 1 month (score 8+ or not). ANOVA, analysis of variance.

for Newborns initially had lower social trust levels (at 1–2 months), while social trust among mothers visited by trained community staff in Home Visit Project for All Infants was higher. Regarding sense of community security, mothers who received visits under Home Visit Project for All Infants showed a significant increase in sense of security. Although sense of security tended to improve among mothers who participated in the home-visit program conducted by trained community staff, the estimates were not significantly higher than the group receiving no home visit, suggesting that the observed increase among mothers receiving home visits by trained community staff might be due to confounds.

The score on the perceived emotional support scale was higher at follow-up among mothers who received Home Visit Project for All Infants or both home-visit programs in comparison with the baseline (ie, pair-analysis), suggesting that trained community staff are viable candidates for providing emotional support, although comparison with the no-home-visit group was not significant in the multivariate model. It has been speculated that

emotional support, rather than structural support, exerts a more powerful impact on parenting behaviour.¹⁶ Further randomised controlled trials are required to investigate whether home visits by professionals or trained community staff result in an increase in emotional support.

Participation in home-visit programs decreased parenting stress, but the reduction might be attributable to a time effect because the reduction is not significant in comparison with that in mothers who received no home visit. The low intensity of the home-visit program (at most, twice in the first 4 months) was likely insufficient to adequately deal with maternal stress. It has been reported that an intense home-visit program, such as the Nurse Family Partnership program (1 h 15 min home visits, 23 times on average until the child's second birthday), showed significant improvement (ie, reduction) in levels of dysfunctional caregiving concentrated among mothers with low levels of psychological resources.¹⁷ In contrast, other results from randomised controlled trials showed that home-visit programs did not reduce parenting stress. For example, it has been reported

that parenting stress was not reduced among American Indian mothers who participated in a home-visit program (1-h home visits, 25 times) when the infant was 2–12 months of age.¹⁵ Other statewide home-visit programs also showed no effect on maternal mental health.¹⁸ Nonetheless, provision of information on infant crying in the first few months of age, which is a partial cause of maternal stress,¹⁹ might reduce abusive head trauma in infants²⁰ because an infant's cry is a major trigger of abusive head trauma.^{21–22} Recent randomised controlled trials revealed that providing educational material on infant crying led to significant changes in knowledge and behaviour and the reduction of abusive head trauma.^{23–24} Thus, home-visit programs for mothers with infants in the first few months should include education on how to deal with infant crying.

Our study had several limitations. First, the home-visit programs were not assigned randomly. Although we adjusted for known covariates, unmeasured confounding factors such as home environment²⁵ or personality might have influenced the association. Further study is warranted, including randomised controlled trials, to investigate the effectiveness of home-visit programs on maternal stress and social capital. Second, the parenting stress scale is supposed to be used for infants who are 6 months of age; thus, the scale might not be appropriate to measure parenting stress in mothers with infants who are 1–4 months of age. However, the items used in this scale were considered to match with those of parents with infants who were 1–4 months of age. Further studies are required to validate the use of the parenting stress scale for parents with younger infants. Third, the duration of follow-up (2–3 months) might be too short to evaluate the change in the social capital. A longer duration of follow-up might show a different effect. Further study is warranted to investigate the effect of home-visit programs with a longer follow-up duration. Fourth, although this was a population-based survey, only 37% of the eligible population responded to the follow-up survey. Unfortunately, the participants were identified from the birth records, which included only the name and address of the newborn, and thus, a comparison of relevant characteristics between respondents and non-respondents at baseline is not possible. Thus, selection bias cannot be avoided, which limits the generalisability of the findings. Further, we only know whether the subjects received

the home-visit program from the follow-up questionnaire, and thus, we could not test whether 'exposure' to the home-visit program was associated with response to the follow-up questionnaire. However, the response rate was not likely to be differential with respect to what type of program they received because the comparison between respondents and non-respondents to the follow-up questionnaire showed no significant difference on covariates. In addition, we included only mothers who delivered infants between August and November 2009, but there might be a seasonal variation on the impact of home-visit programs.

Despite these limitations, we found that home-visit programs have potential to reduce parenting stress and increase the social capital. Although not statistically significant, we found an association between the frequency of home visits and reduction in parenting stress. The type of visitor (ie, public health nurses, midwives or trained community staff) needs to be chosen carefully. Further randomised controlled trials are required to determine the appropriate frequency of home visits and to identify the most suitable person to conduct home-visit programs.

In conclusion, home-visits programs implemented once or twice by public health nurses or trained community staff for mothers with infants were not associated with substantial reductions in maternal stress and increase in social trust. Further research in the form of randomised controlled trials is required to confirm the effectiveness of intensive home-visit programs.

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Contributors TF conceived research design, data analysis and wrote first draft. KN conceived research design and collected data. MO, TS and IK provided professional comments and edited the final manuscript.

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Competing interests None.

Patient consent We used questionnaire and fill out of the questionnaire was considered consent, which was approved by Ethics Committee at National Institute of Public Health.

Ethics approval This study was approved by the Ethics Committee at the National Institute of Public Health.

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What is already known on this subject

- ▶ A home-visit program can be an effective intervention to address maternal parenting stress.
- ▶ No study investigated the effectiveness of home-visit program on maternal parenting stress and social capital simultaneously.

What this study adds

- ▶ The home-visit program for mothers with infants once or twice showed no substantial reduction in maternal parenting stress and no substantial increase in social trust in Japan.
- ▶ Further research in the form of randomised controlled trials is required to confirm the effectiveness of intensive home-visit programs.

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病院で把握される虐待症例における個人的・社会的要因の解明に関する研究

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研究要旨

【目的】病院で把握される虐待症例は重症例が多く、属性や所見に関する個人的・社会的要因を解明することが求められている。重症例として注目されるのは3歳未満の死亡事例の4分の1をしめる虐待による頭部外傷である。虐待による頭部外傷は、生後2・3か月にピークがあることが知られているが、日本においては生後7・9か月においても一度ピークがあることが報告されている（Fujiwara et al, Pediatrics, 2008）が、その要因についてはわかっていない。そこで、本研究では成育における虐待対策チームのデータベース（SCAN データベース）を用いて、セカンドピークの要因について調べることを目的とした。

【方法】症例は、2002年3月～2011年2月までの10年にSCANデータベースに登録された虐待による頭部外傷のうち、月齢が36か月未満の児を対象とした（N=38）。属性（性別、生活保護の有無）、CT所見、眼科所見、受傷機転の説明を比較した。

【結果】0・5か月にファーストピークがあることも確認されたが、6・12か月においてセカンドピークがあることも確認された。ファーストピーク群（N=15）とセカンドピーク群（N=22）を比較したところ、セカンドピーク群は時期の異なる急性硬膜下血腫が多かった。また、ファーストピーク群は脳浮腫が多かった。性別、生活保護、眼科所見に差はなかった。セカンドピークの受傷機転の説明では、転倒、特に転んで後頭部を打った、という説明が多かった。

この結果から、セカンドピークの虐待による頭部外傷は、転倒を機に親が受診することで発見されていることがわかった。6・11か月の頭部外傷による受診においては、慎重な問診により虐待による頭部外傷を把握することが重要であることが示唆された。

A. 研究目的

国立成育医療研究センターでは病院が開院した2002年から子ども虐待防止委員会のもとに、子ども虐待対応チーム（Suspected Child Abuse and Neglect ; SCAN チーム）が形成されて、虐待に組織的に対応してきた。その一環として、SCAN チームで扱ったケースのデータベースを構築した。

一方、病院で把握される虐待症例は重症例が多く、属性や所見に関する個人的・社会的要因を解

明することが求められている。重症例として注目されるのは3歳未満の死亡事例の4分の1をしめる虐待による頭部外傷である。虐待による頭部外傷は、生後2・3か月にピークがあることが知られているが、日本においては生後7・9か月においても一度ピークがあることが報告されている（Fujiwara et al, Pediatrics, 2008）が、その要因についてはわかっていない。そこで、本研究では国立成育医療研究センターのSCAN データベースを用いて、セカンドピークの要因について調

べることを目的とした。

B. 研究方法

症例は、2002年3月～2011年2月までの10年に国立成育医療研究センターのSCANデータベースに登録された虐待による頭部外傷のうち、月齢が36か月未満の児を対象とした。属性（性別、生活保護の有無）、CT所見、眼科所見、受傷機転の説明を比較した。

（倫理面への配慮）

既存の情報であるSCANのデータベースから個人情報を除いた形で必要項目を抽出し、統計情報のみを扱った。（国立成育医療研究センター診療情報の2次利用申請中）

C. 研究結果

年齢分布を図1に示す。2・3か月にファーストピークがあることも確認されたが、6・11か月においてセカンドピークがあることも確認された。

ファーストピーク群とセカンドピーク群の性別と生活保護を比較したところ、いずれも生活保護世帯はなく、有意差はなかった（表1）。また、CT所見を比較したところ、セカンドピーク群は時期の異なる急性硬膜下血腫が多かった。また、ファーストピーク群は脳浮腫が多かった（表2）。眼科所見に差はなかった（表3）。

セカンドピークの受傷機転の説明では、転倒、特に転んで後頭部を打った、という説明が多かった。

D. 考察

北米（Barr et al, Child Abuse & Neglect, 2006; Lee et al, JDBP, 2007）およびヨーロッパ（Talvik et al, Acta Paediatrica, 2008）では必ず確認される2・3か月の月齢における虐待による頭部外傷のピークがあることは本邦でも確認された。一方、これまでの報告同様、乳児期後半にももう一つのピーク（セカンドピーク）があることがわかった。

その要因として考えられるのは、日本だけにみられることから以下の2つの日本の特徴に起因している可能性が考えられた。①部屋の狭さや添い寝の習慣から乳児期に虐待による頭部外傷（Abusive Head Trauma）のきっかけとして最も多いとされる泣き声への反応が多い可能性、②日本ではCT検査が多用されているために見つかりやすい可能性、である。①に関しては、乳児期後半に夜泣きが始まり、添い寝を多くし、部屋も狭い日本ではストレスが高じやすく虐待にいたっている可能性が考えられる。②に関しては、位相の異なる出血が見られることが多いことから、繰り返される揺さぶりによって慢性硬膜下出血となって出血しやすい状況がある中での揺さぶりや激しい転倒等による出血がきっかけで発見されることがあり、その時期の発見が増えているのではないかと考えられた。

E. 結論

日本においては、他の国と異なり、虐待による頭部外傷は発生しやすい月齢において2つのピークがあることが確かめられた。セカンドピークの要因については今後さらに詳しく検討することが必要であるが、そのトリガーを明らかにし、それに応じた対策を考案することが急務であることがわかった。

F. 健康危険情報

特になし

G. 研究発表

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- 3) Okuyama M., Nishizawa S. : Five Year Child Abuse Death Review In Japan, The 25th Annual San Diego International Conference on Child and Family Maltreatment. San Diego California USA. 2011.1

H. 知的財産権の出願・登録状況

1. 特許取得

特になし

2. 実用新案登録

特になし

3. その他

特になし

図1 成育医療センター2002年から2011年における36か月未満の虐待による頭部外傷事例(N=38)の年齢分布

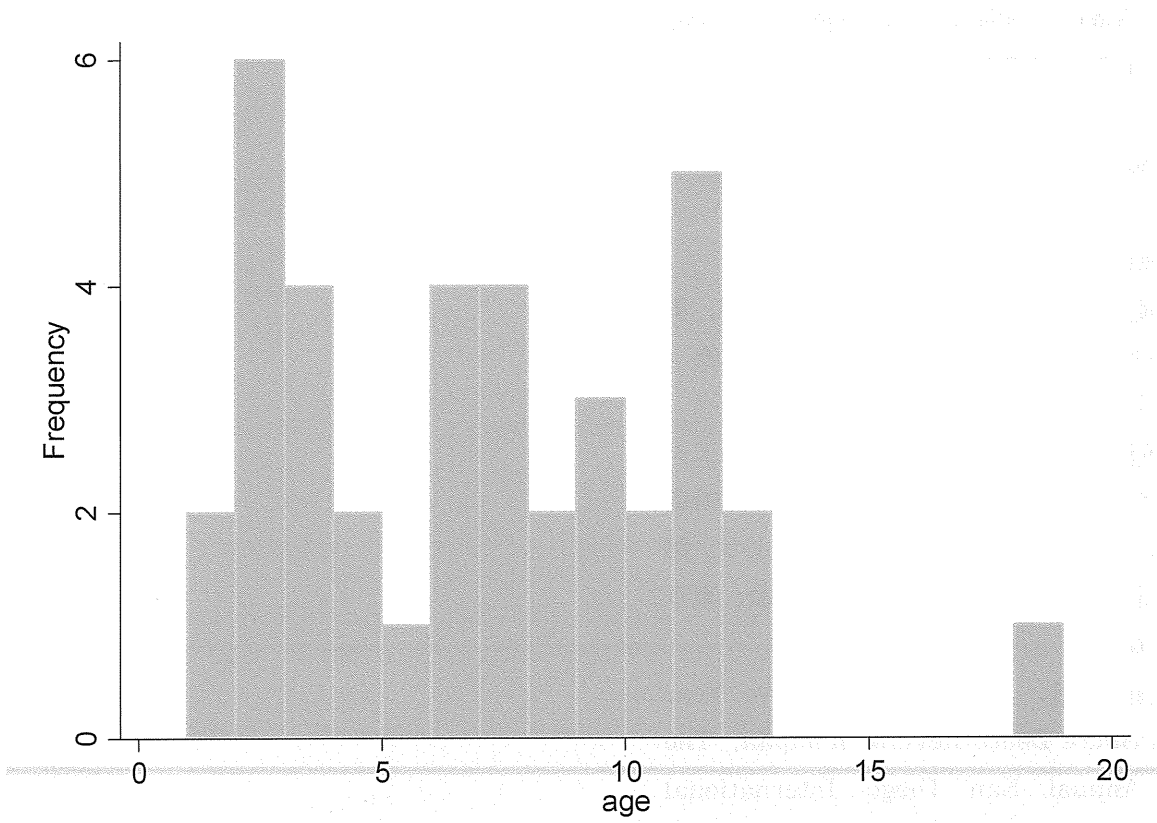


表1 属性の比較

		第1ピー ク群 (N=15) (n, (%))	第2ピー ク群 (N=22) (n, (%))	P (Fisher's exact test)
性別	男の子	9(60.0)	19(86.4)	0.118
	女の子	6(40.0)	3(13.6)	
生活保護	あり	0(0)	0(0)	NA
	なし	15(100)	22(100)	

表2 CT所見の比較

		第1ピー ク群 (N=15) (n, (%))	第2ピー ク群 (N=22) (n, (%))	P (Fisher's exact test)
頭部 CT	皮下血腫	2(13.3)	0(0)	0.16
	頭蓋骨骨折	3(20.0)	1(4.6)	0.28
	硬膜外血腫	1(6.7)	2(9.1)	<1.00
	急性硬膜下血腫	8(53.3)	13(59.1)	0.75
	時期の異なる急性硬膜下血腫	2(13.3)	9(40.9)	0.14
	脳室内腔拡大	1(6.7)	4(18.2)	0.63
	慢性硬膜下血腫	3(20.0)	7(31.8)	0.48
	硬膜下水腫	4(26.7)	8(36.4)	0.72
	くも膜下血腫	1(6.7)	2(9.1)	<1.00
	脳浮腫	7(46.7)	4(18.2)	0.08
	軸索損傷	1(6.7)	0(0)	0.41
	脳萎縮	2(13.3)	2(9.1)	<1.00

表3 眼科所見の比較

		第1ピー ク群 (N=15) (n, (%))	第2ピー ク群 (N=22) (n, (%))	P (Fisher's exact test)
網膜出血	なし	7(46.7)	8(36.4)	0.9
	片眼	2(13.3)	3(13.6)	
	両眼	6(40.0)	11(50.0)	

病院で把握される虐待症例における個人的・社会的要因についての研究

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研究要旨

病院で虐待症例を把握するに当たり、虐待を見逃さずに疑うことができ、虐待かどうかの医学的評価を行うことができ、院外各機関と連携できることが必要である。そのために、虐待対応を、医者個人の消耗的な取り組みから、何人もの専門家が配属されたシステムの対応に置き換え、集約して対応することが必要であり、それにより、医療機関として発揮できる専門性は増し、データの蓄積は新たなエビデンスを生み出すはずである。地域の虐待医療対応上の対応・連携の中心として Child Protection Team (CPT)を位置づけ、①その構築を進めていくためのガイド②既に CPT が機能している病院が、成長戦略を練るための自己評価用ガイド③行政機関と医療機関が虐待医療地域連携ネットワークを構築する上でのガイド となりうるガイドの作成を試みた。ガイドは CPT の要素を 21 に分け、各々 3つの STEP で概説している。豊富な実例集も掲載しており、CPT を新たに構築する際に有用となりうる資料と、行政と医療機関とで議論を進めるきっかけとなる資料も載せている。

本ガイドが様々な目的別に使われると共に、CPT の役割のありようを地域で議論するきっかけとなることも期待される。

A. 研究目的

我が国でも虐待の通告は近年増加し、社会的関心も高まっているが、通告経路別割合で医療機関からの通告割合は、いまだに約 4%とほとんど変わりはない。通告が増加しているとはいえ、小児人口での比率でいうと約 0.3%程度であり、米国の約 5%と比すると、通告を行うことが社会全般に一般的となっているとは言いがたい。

重症事例が治療のために訪れ、最後の砦となりうる医療機関においても、通告に伴う不利益性への懸念が、「虐待でない可能性がいくつあろうが虐待である可能性が一つでもあれば、子どもの安全のために行動すべし」という観念論を凌駕することは、何ら不思議ではない。

子ども虐待とは極めて普遍的な事象であり、子どもの虐待とネグレクト症例に接していない病院はない。程度の差こそあれ、虐待されている子どもは日々医療機関を受診している。

「まさかね、でもそのくらいの根拠で通告しては・・・」という懸念を、個々の医師が持つことなく対応ができる仕組みが必要である。また明らかに通告が必要な虐待においても、医者個人の消耗的な取り組みから、何人もの専門家が配属されたシステムの対応に置き換え、集約して対応することで医療機関として発揮できる専門性は増し、データの蓄積は新たなエビデンスを生み出すはずである。

『病院内子ども虐待対応組織』（CPT: Child Protection Team）は、地域の虐待医療対応上の対応・連携の中心となりうるものである。そ

の設置率は、年々増加しているものの、それは小児専門研修施設・臓器提供施設に限定的な状況と思われ、一般病院においてはあまり設置は進んでいないものと推測される(2009年調査では、専門研修施設におけるCPT設置率が約40%であった一方、一般病院のCPT設置率は約5%程度であった。)

今回、地域の虐待医療対応上の対応・連携の中心としてCPTを位置づけ、

- ①その設置を進めていくためのガイド
- ②既にCPTが機能している病院が、成長戦略を練るための自己評価用ガイド
- ③行政機関と医療機関が虐待医療地域連携ネットワークを構築する上でのガイドとなりうるガイドの作成を試みた。

B. 研究方法

NACHRI(全米小児病院及び関連機関連合)の発行している『子ども虐待における小児病院の役割の定義づけ』を参照に、CPTの構成と機能を項目立て、また地域におけるその連携についても項目立てを行った。

また、読者の具体的なイメージの一助となるよう、程度の様々な規模、組織形態、機能形態の病院にメールアンケートにて、事例としての情報を提示していただくように呼びかけた。

(メールアンケート先は、実施期間が極めて限られていたことより、研究協力者と親交があり、事例モデルとして適していることがあらかじめ想定される病院を10か所程度ピックアップして行う形をとった。)

C. 研究結果

CPTの要素を1. 構成、2. 機能、3. 連携の3つに分け、計21要素を項目立てし、各々の項目を、3つのSTEPにわけ、ガイドを利用するものが自施設のCPTを評価し、成長戦略を練れるように試みた。

しかし、本ガイドは、CPTをまだ作るに至っていない施設への構築ガイド、ならびに行政機関が地域と協働してシステムを構築する上での

ガイドも兼ねるべきものとして想定しており、上記三つの機能をすべて持たせるために、「CPTのない病院にとっては詳細に過ぎる」、「CPTが既に十分に機能している病院にとっては冗長に過ぎる」、「行政機関にとっては医療機関向けの情報が多すぎる」、と思えるガイドになる可能性があり、目的別の活用法をそれぞれに分け概説すると共に、概要版を設け、理解の一助となるようにした。

CPTの実際の活動イメージをつかむうえで、実際に活動している病院の実例以上に参考になるものはない。事例集も極力各病院から得られたアンケート結果をあえて編集は行わず、そのまま掲載することにより、生の声を反映しているものとなるよう心掛けた。行政にとっては、普段触れることの少ない内容であると思われる。

そして資料編として、CPTを新たに構築するうえで有用となりうる資料や、行政と医療機関とで議論を進めるきっかけとなる資料も掲載した。

D. 考察

作成したDraft版の「医療機関ならびに行政機関のための病院内子ども虐待対応組織(CPT: Child Protection Team)構築・機能評価ガイド: ~連携促進の核としてのCPTを整備し発展させていくために~」を添付する。

総量は多くなったが、すべて読む必要はない「つまみ食い」が出来るガイドであると位置づけ、利用されるようになることが望ましいと考えている。そのような利用を通じ興味を抱いた医療関係者が、全編を通して読むことにより系統だった知識が得られるようにも、配慮している。

2008年の米国小児科学会のアンケートでは、“十分に補償がなされるのであれば、医師としての活動の10-20%を子ども虐待対応に費やす、虐待対応医師として活動するためのトレーニングを受けてもよい”と回答した医師は14.4%であった。本邦でも潜在的に協力してよいと考える医師は同程度以上にいるものと考えている。