Factors related to the mental health of postpartum mothers: focusing on the relationship between child-rearing stress and self-efficacy

Miyuki SEKI¹ and Kiyoshi SAKUMA²

We aimed to determine the relation between child-rearing stress and self-efficacy as factors related to postnatal depression; this will facilitate healthy child development and provide maternal support, thus decreasing the incidence rate of postnatal depression.

We used the Edinburgh postnatal depression scale (EPDS) and the General Self-Efficacy Scale (GSES) to assess maternal mental health and self-efficacy, respectively. Eleven child-rearing stress categories were specified based on a previous research. Of 865 mothers up to 4 months post-delivery, 459 (52.1%) responded; 415 valid responses were analyzed.

Eighty-eight mothers (21.2%) had EPDS scores of 9 or more and 192 mothers (46.2%) had “low” or “somewhat low” GSES points. GSES was significantly low (p<0.001) in the EPDS 9 or more group, and child-rearing stress points were significantly high (p<0.001), confirming the relationship between GSES and child-rearing stress as factors related to EPDS. The high EPDS group experienced intense child-rearing stress due to lack of child-rearing confidence; this is attributed to declining birth rates and increasing nuclearization of families that result in many women without any child-rearing experience. This significantly influences maternal mental health. As mental health support for mothers, early support by home visits is a critical plan element. Examining not only their mental health status but details of their child-rearing stress and confidence in childcare is considered to provide effective support.

Key words: mental health of mothers, postnatal depression, child-rearing stress, self-efficacy

I Introduction

The frequency of postnatal depression is said to be approximately 10%-15%¹², and is an important issue in perinatal mental health. Furthermore, there have been more than a few cases where postnatal depression has led to attachment disorder or abuse. Evidence that it has a negative effect on children’s growth and development has mounted¹⁴, and in order to lessen the burden of child rearing and housework on mothers, husbands and other family members need to make household adjustments such as those regarding their jobs. As maternal mental health does not just affect mothers but also effects their spouses and other family members, it is an important issue.

Postnatal depression is the most common mental health issue during the perinatal period, and pre-

¹ Saitama Prefectural University
² Gerontology Association Research Society
ventive measures are a crucial issue for the administration of health. Therefore, in Japan, there are four main sections in the national campaign for maternal and child health through to 2014 “Healthy Parents and Children 21,” and in one of those sections, “Maintaining safety and comfort in pregnancy and childbirth and support for sterility,” a lowered incidence rate of postnatal depression is given as a health standard indicator. Against this backdrop, the incidence rate of postnatal depression was 13.4% in 2001. It reached 12.8% in 2005, setting the desired value into a further decreasing trend. Because of this, municipal bodies that conduct screening using the Edinburgh postnatal depression scale (EPDS)5,6 and provide support to mothers with a high risk of postnatal depression are also on the increase.

Furthermore, according to the analysis of investigations conducted in Osaka7 and Hyogo8, modern mothers do not have experience raising children, and it is also easy for them to become isolated from their community. For this reason, they have no confidence in their child-rearing ability. Harada9 believes that confidence in child-rearing is related to the mental health of mothers and that having little experience of raising children is linked to child-rearing stress, thus illustrating that child-rearing support is an important issue.

In addition, according to the Ministry of Health, Labour and Welfare10, the number of abuse consultations increases every year, and the number of child abuse consultations during 2009 was reported to be the highest ever at 44,210. As the decreasing birth rate and the nuclearization of family progress, it is predicted that child rearing in this age will become increasingly difficult. Therefore, we aimed to investigate factors connected to postnatal depression, which is becoming a serious modern health issue, and conducted an investigation into its relation to child-rearing stress. Confidence in child rearing was measured with self-efficacy, and its connection was studied. Clarification of concrete factors related to postnatal depression, and the analysis of support for mothers are needed to reduce the incidence rate of postnatal depression are important measures that will lead to the facilitation of healthy growth and development of children.

II Methods

1. Investigation methods

We distributed anonymous questionnaire surveys in the municipalities within prefecture A to mothers up to 4 months after delivery and collected the responses via postal mail.

The survey area had a population of approximately 130,000 people as of January 1, 2011. In addition, Live births in 2011 was 1,200. The 2011 birth rate of 9.2 is slightly higher than the national average of 8.3. Total fertility rate is 1.4, similar to the national average of 1.39. The city had a relatively young population with the proportion of residents ≥65 years old being 16.3%, compared with the national average of 22.1%11.

2. Subjects of the investigation

The period of the investigation was from December 2008 to March 2010. The subjects of the investigation were 865 mothers up to 4 months after delivery.

3. Content of the survey

(1) Attributes of the subjects

We asked subjects to answer regarding their attributes such as number of births, family composition, employment status, and their age.

(2) Child-rearing stress

With the “child-rearing stress scale” (for use of 6 months after delivery) by Sato et al.12 as a standard, and on the basis of the condition of the infants...
up until 4 months old, we conducted a field survey of public health nurses and an investigation of child-rearing stress categories. We set up 11 categories and received four grades of responses regarding to the extent of stress felt (from 1: “not at all” 2: “slightly” 3: “considerably” 4: “extremely”). We calculated total points based upon rough points attributed to the four grades of answers (from 1 to 4). Total scores ranged from 11 to 44 points. Scores were given out of a total of 44 points. A higher score indicated greater child-rearing stress.

(3) Maternal mental health

We used EPDS for assessing the mental health of mothers. EPDS requires answers to be chosen from 4 possibilities in 10 question categories. EPDS has 10 question categories. Each of these categories has 4 possible answers from which one answer can be chosen. Each possible answer is given a score of 0–3 points. Total points are then calculated and postnatal depression screening is conducted. Total scores range from 0 to 30 points. It is a questionnaire used both within and outside of Japan, with a total of 30 points. In Japan, scores of over 9 points are screened as postnatal depression.

(4) Self-efficacy

We used the General Self-Efficacy Scale (GSES) developed by Sakano et al. for assessing mothers’ self-confidence in child rearing. There were 16 general self-efficacy questions, and a “Yes” or “No” answer was required for each, with a total of 16 points. The yes/no answers are given scores of 0 or 1 points and the total score calculated is the GSES score. Total scores range from 0 to 16 points.

GSES scores are divided into 5 grades using the total scores from 16 categories. In adult females, 0–3 points is considered low, 4–7 points as somewhat low, 8–10 points as normal, 11–14 points as somewhat high, and 15–16 points as high. A higher score indicates greater self-efficacy.

The 16 GSES categories can be divided into 3 subscales: “behavioral assertiveness” (7 categories), “apprehension regarding failure” (5 categories), and “social position of competence” (4 categories). “Behavioral assertiveness” is made up of 7 categories including people who are introverted, those who find it difficult to behave assertively, and those who deal with everything assertively. Total scores range from 0 to 7 points. “Apprehension regarding failure” is made up of 5 categories including those who often feel anxious that things may not turn out well when they go to do something and those who are bothered by even small failures for longer than other people. Total scores range from 0 to 5 points. “Social position of competence” is made up of 4 categories including those who have greater ability than their friends and those who feel that they are strong enough to make a contribution to the world. Total scores range from 0 to 4 points.

4. Methods of analysis

We calculated the ratio of the number of responses regarding the attributes, EPDS scores, and GSES scores of subjects. We then investigated their relationship with attributes and EPDS scores. Family composition of the subjects was classified into two groups depending on whether or not subjects were part of a nuclear family. They were also classified into two groups depending on whether or not they were employed or unemployed. We then conducted a t test. Experience giving birth was classified into four groups: once, twice, three times, four or more times. The mothers’ age was classified into five groups: ≤24 years old, 25–29 years old, 30–34 years old, 35–39 years old, ≥40 years old. We then conducted a one-way analysis of variance (one-way ANOVA). An EPDS score of ≥9 is screened as postnatal depression. Hence, we separated subjects into two groups—those with EPDS scores of ≥9 and those with EPDS scores of <9—and investi-
gated child-rearing stress points and GSES scores using a t test. We tested the homogeneity of variance for the analysis of the t test and one-way ANOVA.

We used SPSS (Ver. 19) for statistical analysis and considered a significant level for both measurements to be 5%.

5. Ethical considerations

We received the approval of the Saitama Prefectural University Ethical Committee. We attached a survey request in which we gave an overview of our research and stated that cooperation of mothers with the survey was voluntary, that no disadvantages would occur if they did not cooperate with the survey, and that their anonymity would be preserved. We considered their replying to the survey form as their consent.

III Results

1. Attributes of the subjects

Of the 459 responses (52.1% of response rate) we received, we analyzed the 415 valid responses.

The attributes of the subjects are shown in Table 1. The mean age of the mothers was 30.3±5.0 (18–45) years. Regarding their experience giving birth, it was the first time for 191 women (46.0%) and the second time for 154 women (37.1%). Regarding family composition, 350 women (84.3%) were part of a nuclear family. Two hundred ninety-three women (70.6%) were not employed.

2. Distribution of EPDS scores

EPDS is shown in Table 2. Of the 415 mothers, 88 women (21.2%) had 9 points or more. According to the period in which their answers were given, 14 (25%) out of 56 mothers had EPDS scores of 9 or more one month after giving birth, and 50 (22.1%) out of 226 mothers had EPDS scores of 9 or more two months after giving birth. Three months after giving birth, 19.1% had EPDS scores of 9 or more, and 13.0% had EPDS scores of 9 or more four months after giving birth. The mean EPDS score was 5.3±4.7 (range, 0–26). In the EPDS score distribution, the average value tended to be bigger than the median value in all ages in months. This clarified the existence of the high EPDS scorers as a characteristic of the target group.

3. The relationship between EPDS scores and subjects’ attributes

We used a t test to compare whether or not subjects were part of a nuclear family and whether or not the mothers were employed in order to investigate the relationship between attributes and EPDS. Table 3 shows the results. As EPDS scores for mothers who were part of a nuclear family were 5.4±4.7 and scores for mothers whose grandparents lived with them were 5.1±4.5, no significant results were observed. With regard to mothers’ employment, as mothers who were employed...
scored 5.1±4.6 and mothers who were not employed scored 5.4±4.8, no significant results were observed (Table 3).

We classified subjects into four groups regarding their experience giving birth—those who had given birth once, twice, three times, and four or more times—and conducted one-way ANOVA. We then conducted Tukey’s multiple comparison test as equal variance was confirmed with ANOVA. Resulting EPDS scores were 5.8±4.9 for mothers who had given birth once, 4.8±4.0 for mothers who had given birth twice, 5.3±5.3 for mothers who had given birth three times, and 5.8±6.1 for mothers who had given birth four or more times. No significant results were observed from the multiple comparison results. We classified the age of the mothers into five groups (≤24 years old, 25–29 years old, 30–34 years old, 35–39 years old, and ≥40 years old) and conducted one-way ANOVA. As ANOVA confirmed that variance was not equal, we conducted a multiple comparison using Dunnett’s method. This resulted in EPDS scores of 6.3±4.8.
for mothers ≤ 24 years old, 5.6±5.4 for mothers 25–29 years old, 4.9±3.8 for mothers 30–34 years old, 5.0±4.9 for mothers 35–39 years old and 6.4±4.9 for mothers ≥ 40 years old. No significant results were observed as a result of the multiple comparison test (Table 3).

4. Distribution of GSES points

GSES is shown in Table 4. The mean GSES score value was 8.1±3.8 (range, 0–16). Analyzing GSES point distribution based upon the five groupings of Sakano et al. (2008), “somewhat low” (4–7) was the most common, with 135 women (32.5%) in the group. The second most common was “normal” with 105 women (25.3%) in the group. However, the percentage of women having “low” (0–3) and “somewhat low” (4–7) was 192 women (46.2%).

5. The relationship between EPDS and child-rearing stress

The mean of child-rearing stress points was 17.5±5.0 (11–44). We divided subjects into two groups—those with EPDS scores of 9 or more and those with EPDS scores less than 9—and then conducted a comparison of child-rearing stress points using a t test. The results are shown in Table 5. On the t test of the total points of the 11 categories of child-rearing stress, the mean score of the group with EPDS scores of 9 or more was significantly higher (p<0.001) at 19.7±6.5, compared with the mean score of the group with EPDS scores less than 9 (16.9±4.3). The results of a comparison conducted using a t test on the 11 child-rearing stress subcategories when subjects were divided into two groups—those with EPDS scores of 9 or more and those with scores less than 9—showed that in 8 out of 11 items, the mean score of the group with EPDS scores of 9 or more was significantly higher.

6. The relationship between EPDS and self-efficacy

With the subjects divided into two groups—those with EPDS scores of 9 or more and those with scores less than 9—we conducted a comparison with GSES and a t test. The results are shown in Table 6. On the t test with the total points of the 16 GSES questions, the group with EPDS scores of 9 or more was significantly lower (p<0.001), at 6.4±3.8, compared to the group with EPDS scores less than 9, which was 9.5±3.7. With the three GSES subscales as well, when subjects were divided into two groups—those with EPDS scores of 9 or more and those with scores less than 9—the results of a comparison via t test were that the two subscales “behavioral assertiveness” (p<0.001) and “apprehension regarding failure” (p<0.001) were significantly lower in the group with EPDS scores of 9 or more compared with the group with EPDS scores less than 9.

IV Discussion

1. Relationship between mothers’ mental health and attributes

Eighty-eight women (21.2%) had EPDS scores of 9 or more, and a trend was seen where that ratio stayed high until two months after delivery. In the survey by Ebine et al. (2008), which used 691 mothers receiving their one month postpartum check-up as subjects, 131 women (19.0%) had EPDS scores of 9 or more. In the survey by Kaneko et al. (2015), which
used mothers in one month after delivery as subjects, 24 out of 164 women (14.6%) had EPDS scores of 9 or more. In addition, in the survey by Fujita et al.\(^\text{16}\), which used mothers in one month after delivery as subjects, 22 out of 103 women (21.4%) had EPDS scores of 9 or more. Furthermore, in the survey by Yoshida et al.\(^\text{17}\), which used 3,370 mothers within 120 days after delivery as subjects, the ratio of EPDS scores of 9 or more was 19.2% for 0–28 days after delivery. It was 13.6% for days 29–56, 11.5% for days 57–84, and 9.0% for days 85–120. Although slight discrepancies in EPDS scores can be seen when the results of these surveys are compared, a trend of EPDS scores being high in the earlier postpartum period is exhibited and the same trend was also seen in this study.

Current support given to mothers and their children is determined by Article 10 of the Maternal and Child Health Law regarding health guidance.

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### Table 5 The relation of EPDS to child-rearing stress categories (n=415)

<table>
<thead>
<tr>
<th>Category</th>
<th>EPDS score &lt; 9</th>
<th>EPDS score ≥ 9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean standard</td>
<td>mean standard</td>
</tr>
<tr>
<td></td>
<td>deviation</td>
<td>deviation</td>
</tr>
<tr>
<td>Total points of 11 categories of</td>
<td>16.9 4.3</td>
<td>19.7 6.5</td>
</tr>
<tr>
<td>child-rearing stress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Subcategories)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crying during the night</td>
<td>1.5 0.7</td>
<td>1.8 0.9</td>
</tr>
<tr>
<td>Violent crying</td>
<td>1.8 0.8</td>
<td>2.1 0.9</td>
</tr>
<tr>
<td>Not stopping crying once they start</td>
<td>1.6 0.8</td>
<td>1.9 1.0</td>
</tr>
<tr>
<td>Crying when they are left alone</td>
<td>1.7 0.8</td>
<td>2.0 1.0</td>
</tr>
<tr>
<td>Refusing to drink breast milk or</td>
<td>1.2 0.5</td>
<td>1.3 0.7</td>
</tr>
<tr>
<td>formula</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not sleeping well</td>
<td>1.6 0.6</td>
<td>2.0 0.9</td>
</tr>
<tr>
<td>Inconsistent sleeping time</td>
<td>1.6 0.7</td>
<td>1.9 0.9</td>
</tr>
<tr>
<td>Eczema</td>
<td>1.6 0.8</td>
<td>1.9 1.0</td>
</tr>
<tr>
<td>Diarrhea/Constipation</td>
<td>1.4 0.7</td>
<td>1.5 0.8</td>
</tr>
<tr>
<td>Crying without reason</td>
<td>1.6 0.7</td>
<td>2.0 0.9</td>
</tr>
<tr>
<td>Diaper rash</td>
<td>1.3 0.6</td>
<td>1.4 0.7</td>
</tr>
</tbody>
</table>

1) t-test.  
** : P<0.01, *** : P<0.001, ns : no significant difference.

### Table 6 The link between EPDS and GSES (n=415)

<table>
<thead>
<tr>
<th>Category</th>
<th>EPDS score &lt; 9</th>
<th>EPDS score ≥ 9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean standard</td>
<td>mean standard</td>
</tr>
<tr>
<td></td>
<td>deviation</td>
<td>deviation</td>
</tr>
<tr>
<td>Total points of 16 categories</td>
<td>9.5 3.7</td>
<td>6.4 3.8</td>
</tr>
<tr>
<td>(Subscales)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral assertiveness</td>
<td>3.6 2.0</td>
<td>2.9 2.0</td>
</tr>
<tr>
<td>Apprehension regarding failure</td>
<td>3.4 1.5</td>
<td>2.0 1.4</td>
</tr>
<tr>
<td>Social position of competence</td>
<td>1.5 1.3</td>
<td>1.4 1.4</td>
</tr>
</tbody>
</table>

1) t-test.  
** : P<0.01, *** : P<0.001, ns : no significant difference.
for expectant and nursing mothers, and/or their spouses, and infant or the guardian of the infant. Furthermore, in Article 11 of the same law, it is written that guidance will be given through visits to newborns that require health guidance. In addition, guidance visits for premature infants are determined in Article 19 of the same law. In April 2009, the Child Welfare Act was partially revised in order to provide adequate services to households requiring support with infant home visit services. Visits to all households in which there is an infant up to 4 months after delivery are conducted and the physical and mental situation as well as the nurturing environment of the parents and children must be grasped and advices should be offered. This is done along with listening to any type of worries and concerns and providing information regarding child-rearing support. Because these postpartum visits are being carried out in the early postpartum period, they will enable early recognition of the mental health needs of mothers and lead to helpful support.

In regard to the relationship between EPDS scores and basic attributes, there was no significant difference in EPDS scores among difference in family structure, employment status, experience in childbirth, and mother’s age. Harada\(^1\) discovered in an investigation of 820 participants that child-rearing anxiety and confusion heightened depressive feelings among primiparous women, mothers who were pregnant for the first time. An investigation by Nakatani et al.\(^1\) on 166 participants reported that mothers’ depression and child-rearing experience were not related. O’Hara et al.\(^2\) found that child-rearing anxiety and support (or its absence) accumulated as stress, which contributed to the downturn of mental health.

In addition, Sato et al.\(^3\) reported that mental health level and stress were related and that stress was related to experience in child birth and family support. A study of mothers 1 month after childbirth reported that mothers who had little support from their family felt strong negative emotions toward their child, thus indicating an association between low support from family and child-rearing anxiety and a sense of burden\(^4\). This study did not find a relationship between EPDS scores and basic attributes; however, family support and child-rearing experience may affect child-rearing anxiety stress, thus influencing mothers’ mental health. Further investigation is needed for the related causes of child-rearing stress, and it is also critical to gather research on stress factors and their degree of influence on mothers’ mental health by conducting qualitative research such as interviewing mothers with high EPDS scores.

### 2. Mothers’ self-efficacy

Furthermore, regarding self-efficacy, the mean GSES score was 8.1 ± 3.8 (0–16). The sum of mothers in the “low” (0–3) and “somewhat low” (4–7) groups was 192 (46.2%), with a high ratio of women showing a “low” trend. Sakano et al.\(^5\) indicated that the mean GSES score of adult females was 9.1 ± 3.93. In addition, it was reported in the survey conducted by Sasaki et al.\(^6\) which used 541 women receiving 3–4 month checkups as subjects, that the mean GSES score was 8.8 ± 3.8, with 205 of all women (37.9%) receiving less than 7 points.

Self-efficacy is expecting and being confident that one can manage things well, which brings about assertive behavior. Therefore, we speculate that those with low self-efficacy have feelings of anxiety regarding future prospects and are raising their children with low confidence. During this period, the main factors for such low self-efficacy include the mother herself not having adequately physically recovered and not being able to get enough sleep.
Child rearing in the first four months is a period with stress specific to unstable rhythms in the child’s daily life such as waking up many times during the night due to the infant’s crying and feeding. Low self-efficacy during the postnatal period suggests that this is a sensitive period for mothers feeling depressed by even negligible matters. It is therefore critical to investigate the means of support that will increase confidence in mothers, such as words of encouragement and what kind of help is needed.

3. Relationship between mothers’ mental health and child-rearing stress and self-efficacy

We conducted an investigation into the connection between child-rearing stress and GSES as factors related to EPDS. Firstly, regarding its relationship with child-rearing stress, the child-rearing stress points of the group with EPDS scores of 9 or more were significantly higher than the group with EPDS scores less than 9 points. Furthermore, the mean score of child-rearing stress points in the group of EPDS scores of 9 or more was significantly higher in 8 out of 11 child-rearing stress subcategories. This survey made the connection between EPDS and child-rearing stress apparent. However, regarding the child-rearing stress categories, because we used mothers up to four months after delivery as subjects for our survey, many categories related to children crying, including crying during the night and not stopping crying, are created. More than the child not stopping crying and crying during the night, to mothers who have little experience looking after children, not getting enough sleep themselves, not knowing the reason why their child is crying, and not knowing how to comfort the child are background factors for child-rearing stress. They also appear to have an effect on the mental health of the mothers.

In particular, while child-rearing brings joy after giving birth, it also appears to be a huge stress to mothers with little experience looking after children. Suzumiya et al.\(^ {23}\) reported that for those with high EPDS scores, the percentage of mothers who had negative feelings toward their baby was significantly high and showed a link with categories showing rejection of and anger towards their infants. In questions regarding the risk of abuse, the ratio of mothers for whom an abusive trend was suspected was 3.2% in the group with high EPDS scores, a frequency close to twice that of the group with low scores. In addition, Nishiumi et al.\(^ {24}\) indicated that mothers who perceived child-rearing stress factors had high anxiety scores. This also suggests that, in this period, being able to talk to somebody close to them is very important.

Next, we conducted an investigation into the connection with GSES. In comparison to the group with EPDS scores of 9 or more, the GSES of the group with EPDS scores less than 9 was significantly low. Regarding the three subscales of GSES as well, the results of a comparison of those with EPDS 9 or more and those with 9 points or less showed that in the two subscales “behavioral assertiveness” and “apprehension regarding failure,” the points of the group with EPDS scores of 9 or more were significantly lower than the group with EPDS scores less than 9. According to Kitamura\(^ {25}\), there are many causes of postnatal depression; he stated that the etiology cannot be limited to just one factor and that it encompasses a multitude of factors including the stress and nurturing experience of the mother, coping behavior, social disadvantages, character, and personality. In particular, child rearing becomes stressful for mothers with no experience looking after a child and this is related to GSES, where they appear to lose self-confidence. This also appears to immensely affect the mental health of mothers.
There appear to be various causes related to the perception of child-rearing stress and these include the presence or absence of support, the temperament of the child and financial stability. In order to encourage early detection and consultations for postnatal depression, it is very important during this period that there is a person close to the mother who can be turned to for advice. In addition to primarily administrative newborn visits and premature infant visits, it has been reported that support from close family members leads to a decreased child-rearing anxiety. In addition, rather than just having experts assist mothers with visits and consultations, it is important to promote support from people close to the mothers after they have given birth. This can include making friends at maternity courses held during pregnancy, encouraging the participation of fathers, and strengthening the family support system.

4. Policies and future prospects regarding mothers’ mental health

In this study, no relationship was found between EPDS scores and attributes; also, earlier studies did not find consistent results. However, influence on child-rearing anxiety and stress depending on support and childbirth experience is indicated by studies such as O’Hara et al. This study included many items related to “child’s crying” as details of stress. Furthermore, the participants in this study were limited to mothers with 4-month-old babies; therefore, it is difficult to state whether they have fully recovered physically. For these reasons, inability to handle their child’s crying may have caused stress and low self-efficacy in the mothers, which in turn might have influenced their mental health.

Although it is thought that there are many factors related to postnatal depression, if the staff of health organizations carry out mother and child visits in the early postpartum period and implement support, the mental health needs of mothers will become apparent earlier and it will become possible to support them in a timely manner. Furthermore, it will lead to even earlier awareness of mothers with a risk of attachment disorder towards and abuse of their children as symptoms of postnatal depression. Seki et al. conducted a study of mothers 4 months after childbirth and found that the negative emotions that mothers harbored toward their child had a negative impact on the child’s communication; this stresses the importance of support soon after childbirth. The types of jobs and positions (full-time or part-time) for the postpartum visits currently being carried out vary according to the municipality. It is extremely important that all municipalities grasp the characteristics and issues of their region in their support for postpartum mothers for the promotion of growth and development of children.

This study confirmed the importance of home visits at an early period after birth to support mental health in mothers. Thus, early intervention with mothers after birth and examination of the details of child-rearing stress and confidence are very crucial.

It appears that there were categories in which no relation was observed with EPDS scores because our survey only covered one survey field and the question sheet had a response rate of 53.1%. These were the limitations of this study. This study used mothers with infants of up to 4 months old as subjects. However, mothers' EPDS scores were high when their infants were up to 2 months old and therefore further investigations into the factors influencing the mental health of mothers need to take the age of the children into consideration. Future issues include widening the target area to conduct a comparison of regional characteristics and increasing the number of subjects for investi-
gation.

V Conclusions

In the present day, where there are many mothers with no experience raising children, child rearing is stressful and mothers lose their self-confidence. This appears to have an immense effect upon maternal mental health. Currently, in addition to the postpartum visits carried out by municipalities, it is crucial that health organization specialists encourage the promotion of support from people close to the mothers.

We believe that further investigations with increased number of subjects and target areas for the survey are necessary in the future.

References


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