Study on parenting efficacy and parenting stress of mothers with Infants

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INTRODUCTION

On March 11, 2020, the World Health Organization declared the outbreak of the novel coronavirus infection a global pandemic. The Covid-19 pandemic has a huge impact all over the world, resulting in border closures, travel bans, social and medical collapses, and school suspensions. In this crisis, infants and childcare departments are not free to go to school, and caregivers support children from stress more than ever. Infants and toddlers develop very rapidly. The interaction within various environments experienced by infants will significantly impact their development process during this period and have a positive impact on their growth [1]. Among these various environments, infants develop trust and attachment based on their interactions with their primary caregiver. The relationships they form during this period will play a crucial role in their emotional and social development later on as children.

Mothers accept the role and process of parenting after pregnancy and childbirth and have difficulty adapting to, assimilating, and controlling their new lives. In addition, in Korea, the mother is the primary caregiver and is part of the nuclear family, so the burden of parenting the part of women due to the increase in women’s social advance-
ment and the burden of women playing their role as a caregiver and a housewife.

Parenting refers to the general attitude or behavior experienced while raising a child. The parenting attitude of a mother, who is a primary caregiver, refers to the relationship between parents and children, which influences children’s social and emotional intelligence characteristics. For example, it has been reported that a mother’s stable and positive perception of her infant and affectionate attitude are linked to stable mother-to-child interactions.

Perceived stress in everyday life in performing a parent role is referred to as parenting stress [2]. Recently, the stress on raising children has been increasing due to changes in the composition and structure of the family. Raising children is accompanied by parental responsibility and burden, which add to one’s psychological and economic burden, as well as physical fatigue caused by domestic labor. In addition, one cannot afford to live a personal life, leading to a crisis of identity loss [3]. As a result, it has been reported that stress in the child’s upbringing can cause difficulties in the family system and directly or indirectly affect child development [4].

A study conducted on the parenting stress of ordinary infants and mothers found that parenting stress was perceived to be above average, and the lethargy and stress of mothers added to the aggression of mothers, which negatively affects the development of children. Furthermore, mothers with low parenting stress are expected to form positive parent-child relationships for their children. In contrast, mothers with high parenting stress cannot efficiently manage their infant’s behavior and are expected to have difficulty forming positive relationships.

Parenting efficacy was defined as parents’ psychology, attitude, and belief in a child’s ability to perform behaviors related to desired development [5]. Parenting effectiveness is being able to adapt to the role of parents and stay motivated to manage difficulties related to child-rearing. It can be seen as a cognitive characteristic that plays a decisive role in child-rearing [6].

The higher the effectiveness of parenting, the warmer and more positive the attitude toward infants, and the more flexible and consistent behaviors they have depending on the situation, such as helping them solve problems well [7]. On the other hand, mothers tend to be coercive and controlling [8]. This mode of parent-child interaction influences parents’ sense of efficacy, which is essential in terms of their child’s development or growth.

As such, parenting efficacy and parenting attitude are important to infant development. Therefore, this study seeks to determine the relationship between the parenting stress and parenting effectiveness of infants and toddlers. Based on this, basic data shall be provided in parents’ education related to the parenting of infants and toddlers. The specific purposes of this study areas follows:

First, what is the parenting effectiveness of a mother with infants and children?
Second, how is the parenting stress of a mother with infants?
Third, what is the difference between parenting efficacy and parenting stress according to the subject’s characteristics?
Fourth, what is the correlation between parenting efficacy and parenting stress?

**METHODS**

**Research subject**

To examine the effectiveness and stress of mothers with infants and children, a study was conducted on 61 mothers who gave birth in 2014 to 2018. General information about the subjects is presented in Table 1.

| Category          | Subjest (%) |
|-------------------|-------------|
| Child Gender      |             |
| Boy               | 32 (52.5)   |
| Girl              | 29 (47.5)   |
| Child’s birth year|             |
| 2014              | 9 (14.8)    |
| 2015              | 17 (27.9)   |
| 2016              | 16 (26.2)   |
| 2017              | 12 (19.7)   |
| 2018              | 7 (11.5)    |
| Mother’s age      |             |
| 30 s              | 42 (68.9)   |
| 40 s              | 34 (53.1)   |
|                   | 2 (3.3)     |
| Education level   |             |
| High school       | 12 (19.7)   |
| College           | 12 (19.7)   |
| University        | 34 (54.1)   |
| Graduate school   | 14 (23.0)   |
| Employment Status |             |
| Yes               | 33 (54.1)   |
| No                | 28 (45.9)   |
| Total             | 61          |
Research eools

Parenting efficacy
The parenting efficacy questionnaire of this study was used as a modified supplement to the questionnaire of Bang [1]. The composition of the questionnaire consisted of a total of 36 questions, seven questions of communication efficacy, seven questions of health efficacy, six questions of study guidance efficacy, seven questions of discipline efficacy, and nine questions of parental role efficacy. Each question should be answered on a 1–5 Likert scale from ‘Not at all = 1 point’ to ‘Often true = 5 points’. Information on parenting efficacy questionnaires is given in Table 2.

Parenting stress
The parenting stress questionnaire in this study was used as a modified complement to Oh & Yeon [9]. The composition of the questionnaire consisted of four areas: five questions on physical stress, eight questions on external control, five questions on emotional stress, four questions of internal conflict, and a total of 22 questions. Each question was asked to be answered on a 1–5 Likert scale, with seven rearranged to inverse questions. Thus, the higher the parenting stress score, the higher the stress level measured. Information on parenting stress questionnaires is given in Table 3.

Research procedure
It guided mothers with infants born between 2014 and 2018 on the purpose of the study, how to answer questions, and conducted a Google Mobile survey from June 1 to June 5, 2020. A total of 64 questionnaires were answered through the survey, and the results of 61 responses were finally subjected to analysis, except for dual responses and three insincere responses.

Results process
Statistics were processed using IBM SPSS 22.0 for analysis of results. Frequency analysis was conducted to identify the general characteristics of the subjects in the study, while descriptive statistical analysis was used to identify the effectiveness of parenting and the degree of parenting stress. Subsequently, differences in parenting efficacy and stress depending on the subject’s characteristics were conducted in t-test and one-way ANOVA. Finally, Pearson correlation analysis was used to determine the correlation between parenting efficacy and parenting stress.

RESULTS

Parenting efficacy of a mother’s
The analysis results on the degree of maternal efficacy are as shown in Table 4. Parenting efficacy averaged 3.83 ± 0.46 out of 5. Among the areas of parenting efficacy, health efficacy was the highest with 4.00 ± 0.48, followed by communication efficacy with 3.94 ± 0.51, study guidance with 3.83 ± 0.50, and discipline efficacy with 3.79 ± 0.52. The effectiveness of parental roles was the lowest at 3.57 ± 0.53.

Parenting stress of a mother’s
The results of the analysis of the mother’s parenting stress levels are presented in Table 5. Parenting stress averaged 2.82 ± 0.58 out of 5. Among the areas of parenting stress, emotional stress was the highest at 3.13 ± 0.65, followed by external control at 2.94 ± 0.74, and physical stress at 2.79 ± 0.79. Internal conflict was the lowest at 2.40 ± 0.81.

Table 2. Parenting efficacy item information

| Category               | Item          | N  |
|------------------------|---------------|----|
| Communication efficacy | 3, 7, 12, 16, 21, 23, 34 | 7  |
| Health efficacy        | 2, 6, 11, 15, 20, 25, 30 | 7  |
| Study Instruction efficacy | 8, 17, 22, 27, 31, 35 | 6  |
| Discipline efficacy    | 13, 18, 19, 26, 28, 32, 36 | 7  |
| Parent role efficacy   | 1, 4, 5, 9, 10, 14, 24, 29, 33 | 9  |
| Total                  |               | 36 |

Table 3. Parenting stress item information

| Category               | Item          | N  |
|------------------------|---------------|----|
| Physical stress        | 7, 14, 20, 21*, 22 | 5  |
| External control stress | 10, 11, 12, 13, 15, 16*, 17*, 18* | 8  |
| Mental stress          | 1, 2, 6, 9*, 19* | 5  |
| Internal conflict stress | 3, 4*, 5, 8  | 4  |
| Total                  |               | 22 |

*Reverse item.

Table 4. Parenting efficacy descriptive statistics results

| Category               | M     | SD  |
|------------------------|-------|-----|
| Communication efficacy | 3.94  | 0.51|
| Health efficacy        | 4.00  | 0.48|
| Study Instruction efficacy | 3.83  | 0.50|
| Discipline efficacy    | 3.79  | 0.52|
| Parent role efficacy   | 3.57  | 0.53|
| Total                  | 3.83  | 0.46|
Parenting efficacy and parenting stress according to the characteristics of the subject

Parenting efficacy according to the characteristics of the subject

In order to examine the difference in the sense of parenting efficacy according to the characteristics of the subject, the degree of parenting efficacy was analyzed depending on the gender of the child, the birth year of the child, the age of the subject, the educational background of the subject, and the occupational status of the subject. The results of this comparison are shown in Table 6.

The difference in the effectiveness of raising children by gender was 3.84 ± 0.47 points for raising a girl and 3.82 ± 0.46 points for raising a boy, but there was no statistically significant difference. Depending on the birth of a child, 4.18 ± 0.48 points were raised in 2014, 3.91 ± 0.40 points for a child born in 2016, 3.70 ± 0.47 points for a child born in 2017, and 3.68 ± 0.47 points for a child born in 2018, but there was no significant difference. Differences in the age of mothers were 3.86 ± 0.46 points for mothers in their 30s and 3.75 ± 0.47 points for mothers in their 40s and older, but they were not statistically significant. Finally, the mother’s academic background was 3.83 ± 0.46 for graduate school or higher, 3.82 ± 0.40 for professional scholars, 3.77 ± 0.44 for bachelor’s degree, and 3.46 ± 0.27 for high school graduation, showing no significant statistical differences. Depending on whether a mother has a job or not, 3.91 ± 0.51 points were attributed to those who have a job, and 3.73 ± 0.38 points were ascribed to those who have high parenting effectiveness, but the difference was not statistically significant.

Parenting Stress According to the Characteristics of the Subject

The results of comparing the differences in parenting stress according to the characteristics of the subjects are presented in Table 7. The difference in parenting stress depending on the gender of the child was 2.84 ± 0.60 points for raising a boy and 2.79 ± 0.57 points for raising a girl, but it was not a statistically meaningful difference. For children born in 2017, the statistical difference was 3.13 ± 0.60 and 2.85 ± 0.80 for boys and girls, respectively; for children born in 2014, 2.81 ± 0.20 and 2.80 ± 0.48; for children born in 2015, 2.61 ± 0.61; for chil-
dren born in 2016, the difference was not significant. Depending on the mother’s age, there was a difference of 2.82 ± 0.55 points for those in their 40s or older and 2.82 ± 0.61 points for those in their 30s. The difference between mothers’ educational backgrounds was 2.98 ± 0.26 points for high school graduation, 2.85 ± 0.59 points for professional bachelors, 2.85 ± 0.57 points for bachelor’s degree, and 2.70 ± 0.67 points for graduate school or higher, but it was not statistically significant. Depending on whether a mother had a job or not, 2.88 ± 0.51 points were garnered by those unemployed, and 2.76 ± 0.64 points those who had high parenting stress when they had no job, but there was no statistically meaningful difference.

Parenting efficacy and parenting stress according to the characteristics in the subject

The overall correlation between parenting efficacy and parenting stress

The results of the analysis of the overall correlation between parenting efficacy and parenting stress are shown in Table 8. There was a significant maladaptive correlation \( r = -0.603 \) between parenting efficacy and parenting stress \( p < 0.01 \).

### Table 8. The overall correlation between parenting efficacy and parenting stress

| Parenting efficacy | Parenting stress |
|--------------------|------------------|
| Parenting efficacy | 1                |
| Parenting stress   | -0.603*          |

* \( p < 0.01 \).

Correlation between parenting efficacy and parenting stress sub-regions

To identify the correlation between child-rearing efficacy and child-rearing stress, the correlation between communication efficacy, health efficacy, child-learning guidance, child discipline, parental efficacy, and parenting stress was analyzed, along with the correlation between physical stress, external control, emotional stress, and internal conflict. The results are presented in Table 9.

There were significant static correlations between sub-regions within parenting efficacy \( p < 0.01 \). There was no significant correlation between external control and internal conflict between parenting stress sub-regions, but there was a significant static correlation among all parenting stress sub-regions other than this \( p < 0.01 \).

Looking at the correlation between the sub-region of parenting efficacy and the sub-region of parenting stress, communication efficacy was significant in the order of internal conflict \( r = -0.647 \), emotional stress \( r = -0.490 \), and physical stress \( r = -0.284 \).

Health efficacy was significantly correlated with internal conflict \( r = -0.491 \), emotional stress \( r = -0.336 \), and external control \( r = -0.304 \) but it did not show a significant correlation with physical stress. Learning guidance efficacy was significantly correlated with both internal conflict \( r = -0.489 \), emotional stress \( r = -0.428 \), physical stress \( r = -0.391 \), and external control \( r = -0.349 \), indicating that the higher the efficacy of learning guidance, the lower the parenting stress sub-region. The effectiveness of discipline was shown to be significant in the order of internal conflict \( r = -0.533 \), emotional

### Table 9. Correlation between parenting efficacy and parenting stress subregions

| CE | HE | LE | DE | PE | PS | EC | MS | IC |
|----|----|----|----|----|----|----|----|----|
| CE | 1  |    |    |    |    |    |    |    |
| HE | .718**| 1 |    |    |    |    |    |    |
| LE | .768**| .730**| 1 |    |    |    |    |    |
| DE | .759**| .784**| .894**| 1 |    |    |    |    |
| PE | .771**| .741**| .800**| .767**| 1 |    |    |    |
| PS | -.284*| -.252| -.391**| -.329**| -.447**| 1 |    |    |
| EC | -.240| -.304**| -.349**| -.277**| -.434**| .543**| 1 |    |
| MS | -.490**| -.335**| -.428**| -.429**| -.652**| .555**| .466**| 1 |    |
| IC | -.647**| -.491**| -.489**| -.533**| -.647**| .386**| .228| .671**| 1 |

CE, communication efficacy; HE, health efficacy; LE, learning guidance efficacy; DE, discipline efficacy; PE, parental role efficacy; PS, physical stress; EC, external stress; MS, mental stress; IC, internal conflict stress.

* \( p < 0.05 \), ** \( p < 0.01 \).
stress ($r = -0.429$), physical stress ($r = -0.329$), and extrinsic control ($r = -0.277$), indicating that the higher the effectiveness of discipline, the lower all the parenting stress sub-regions. Parental efficacy was indicated by emotional stress ($r = -0.652$), internal conflict ($r = -0.647$), physical stress ($r = -0.447$) and external control ($r = -0.434$), all showing significant mal-correlation. In particular, it was most deeply related to the overall parenting stress as the effectiveness of the parenting role increased.

**DISCUSSIONS**

This study would like to explore the relationship between the parenting stress and parenting effectiveness of infants and toddlers.

Among the areas of parenting efficacy, health efficacy was the highest with $4.00 \pm 0.48$, followed by communication efficacy with $3.94 \pm 0.51$, study guidance with $3.83 \pm 0.50$, and discipline efficacy with $3.79 \pm 0.52$. The effectiveness of parental roles was the lowest at $3.57 \pm 0.53$. Among the areas of parenting stress, emotional stress was the highest at $3.13 \pm 0.65$, followed by external control at $2.94 \pm 0.74$ and physical stress at $2.79 \pm 0.79$. Internal conflict was the lowest at $2.40 \pm 0.81$. Parents are stressed because they do not know or recognize properly how to respond to their children’s behavior to what they want, and when this experience continues, they are stressed by self-esteem. Song and Kim [10] that the more knowledge and information parents have, the less stress they have and the more effective they can carry out parenting.

There were no significant differences in parenting efficacy and parenting stress in the gender, birth year, mother’s age, education level, and employment of children. Although pre-existing studies showed that the younger the child was, the higher the stress turned out [11], while the younger the child was, the less stressed the child was, there was less significant difference between age and parenting stress [12]. In addition, there were no significant differences in education level, employment status, or occupational status as a result of recognizing differences in information about the mother’s general identification. This result is the same as the previous study’s [13]. In other words, depending on whether the mother has a job or not, it did not directly affect her parenting stress.

There was a significant correlation between parenting efficacy and parenting stress. Furthermore, looking at the correlation between the sub-region of parenting efficacy and the sub-region of parenting stress, communication efficacy was significant in the order of internal conflict ($r = -0.647$), emotional stress ($r = -0.490$), and physical stress ($r = -0.284$), showing no significant correlation with extrinsic control. These results are consistent with the result that the more stress parents perceive in raising infants, the less effective they are in raising them [10,14]. Based on these results, experiencing much stress when a mother raises an infant diminishes her confidence in her parenting ability, and this can negatively affect her child’s development in the future. In other words, parenting stress affects parents, and it can affect infant development, so more empirical studies should be conducted in the future.

This study has limitations in generalizing the results of this study, as it surveyed a limited number of people. However, it may be meaningful to use fundamental data to devise parent education programs to reduce stress and improve efficacy in infants and toddlers. Later studies will be required to determine the link between parenting stress and parenting efficacy in terms of long-term changes in children’s developmental stages.

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