Development of the Assessment Scale of the Father’s Readiness for Child-Rearing

Kiyomi Decker¹, Taeko Watanabe² and Toshiko Matsushita³

1. Kyushu University of Nursing and Social Welfare, 888, Tomio, Tamana-shi, Kumamoto 865-0062, Japan
2. College of Nursing, Shukutoku University, 675, Nitona-cho, Chuo-ku, Chiba-shi, Chiba 260-8703, Japan
3. School of Medicine Nursing Course, Yokohama City University, 22-2, Seto, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0027, Japan

Abstract: Objective: The objective of this study is to create a Self-Assessment Scale of the Father’s Readiness for Child-Rearing to measure the father’s readiness for child-rearing as a caregiver, and to examine the scale’s reliability and validity. Method: (1) Through a review of the literature, we created an interview guide, with seven couples, or 14 people, as subjects, and we conducted semi-structured interviews on the father’s state of readiness for child-rearing at three points in time: at pregnancy, within one month after delivery, and less than one year after birth, and prepared a questionnaire for preliminary research on fathers. (2) We conducted a pilot study of 100 fathers using the above-mentioned questionnaire and examined the questionnaires’ content and validity. The statistical results of the questionnaire were examined by nursing researchers and were amended to complete the questionnaire used in this survey. We asked 950 fathers to cooperate in this survey and examined the questionnaires’ content and validity. Results: A total of 286 questionnaires were returned (a collection ratio of 30.1%), out of which 271 valid responses were analyzed. Through factor analysis, we extracted five factors from the Self-Assessment Scale of the Father’s Readiness for Child-Rearing and obtained 14 items. The five factors were, (1) favorable feelings about the family, (2) negative feelings, (3) self-awareness, (4) changes in awareness, and (5) learning. The Cronbach α coefficient for the entire scale was 0.78. Considerations: The Self-Assessment Scale of the Father’s Readiness for Child-Rearing was thought to consist of the four factors of (1) favorable feelings about the family, (2) negative feelings, (3) changes in awareness, and (4) knowledge acquisition. The reliability of the scale was confirmed because the α coefficient of the entire scale was 0.75. The scale developed in this study was supported by its reliability and validity and indicated its potential for use as an assessment tool in promoting the father’s involvement in child-rearing. We believe that it is useful to utilize educational programs and the like after measuring the state of the father’s readiness for child-rearing. Conclusion: The Self-Assessment Scale of the Father’s Readiness for Child-Rearing, which measures the father’s readiness for child-rearing and was prepared for this study, was supported by its reliability and validity and was shown to contribute to understanding the father’s state of readiness for child-rearing. It is hoped that it will promote the father’s involvement in child-rearing and be widely used in medical facilities and in general.

Key words: Father, child-rearing readiness, reliability, validity.

1. Introduction

During the period of high industrial growth after post-war reconstruction, fathers were required to perform long hours of hard work, and many fathers were unable to play a role in socializing children during child-rearing [1]. Entering the second half of the 20th century, urbanization and changes to the social structure occurred, ushering in the age of gender role awareness wherein the male works outside the home and the woman works inside, and mothers became responsible for child-raising on their own, and the roles of father and mother changed [2]. The fathers’ absence from the discipline and education of children is seen as a problem, and the fathers’ role itself has been called into question.

Becoming a parent is not something that people are inherently prepared for, and both mothers and fathers...
develop parental awareness through experience that prepares them to become parents [3]. As her own physical experience, the mother can be aware of the growth of the fetus and child, and nurture her own motherhood. However, a father has said, “I can only feel the fetus with my five senses such as my sight, hearing, and touch, so my experience is different from that of the mother. Therefore, it’s difficult for the father to have an awareness, and only about half of men develop an awareness of becoming a father” [4]. Furthermore, due to the drastically changing social structure, the role of the father is tremendously needed, and a new father role is required where father image model exists. At the same time, there are fathers who experience difficulty and impatience with child-rearing [1]. Fathers who grew up in an environment with no father model and were responsible for their own lives and their communities are now confused about their own roles [1].

Today, with a new image of the father being sought, one must become a parent to understand the situation of men who are fathers responsible for providing care and child-rearing [1]. At the same time, in order to promote the father’s involvement in child-rearing, we need to know how the father perceives himself in terms of parenting and child-rearing, and define what kind of child-rearing behavior is required. When a father becomes a parent and faces challenges in child-rearing, he assesses his parent’s behavior and attitudes, takes a closer look at his own situation, and improves and adjusts his behavior. In addition, understanding the father’s readiness, we can provide not only a caregiving approach, but caregiving according to the father’s readiness, which leads to the father’s support for child-rearing.

Child-rearing means protecting children’s lives, helping them to develop physically and mentally, promoting their health and raising them so they adapt to society, and the father’s awareness of the role of child-rearing has a major impact on that [5]. In Japan, where the number of children is declining and the number of nuclear families is increasing, child-rearing support for the father is an urgent issue. By clarifying these issues, we hope to contribute to improving the quality of child-rearing.

2. Research Objective

The development of the Assessment Scale of the Father’s Readiness for Child-Rearing; can be used to assess and improve the quality of the fathers’ child-rearing readiness, and verify its reliability and validity.

3. Conceptual Definition of Terms

The father’s readiness for child-rearing refers to “a state in which the father treats his children and their mother with affection, and with awareness as a father and recognizing his role, he gains a close relationship to them, and positively views child-rearing, and acquires the required knowledge and skills.”

4. Research Method

4.1 Elucidation of Concepts Expressing the Father’s Thoughts and Behavior about Child Rearing

The concepts in this study were reviewed from Reference [6]. Semi-structured interviews were conducted with seven male fathers and the concepts were extracted from the obtained data. As a result, the nine concepts of “feeling when pregnancy was discovered], “parent’s attachment to child”, “participation in parenting classes”, “awareness of becoming a parent”, “thoughts about child-rearing”, “thoughts about children”, “parents’ role”, “change in marital relationship”, “desire to be present at childbirth”, and 44 questions were created that represent the father’s thoughts and actions regarding child-rearing. Each question employs the five-step Likert Method, and the options are “Strongly agree (5 points)”, “Somewhat agree (4 points)”, “Neutral (3 points)”, “Don’t much agree (2 points)”, “Don’t agree at all (1 point)”. In addition, a meeting of experts was held to examine the validity of the content, to make it
easy for the respondents to understand and answer the questions.

4.2 Creation and Scaling of Questions

4.2.1 Pilot Study

A pilot study was conducted on 100 men who became fathers for the very first time, using the scale reviewed at the experts’ meeting. As a result, 56 out of 57 respondents (98%) answered all the questions, and one respondent gave no responses. The questions were revised to remove those questions that have responses that are focused on specific options, and 24 questions were selected.

4.2.2 The Survey

We conducted an anonymous survey using a mailed self-administered questionnaire conducted to examine the reliability and validity of the scale based on the scale, which was carefully selected and prepared in the pilot study.

(1) Data collection method

In the Kanto and Kansai regions, we requested cooperation in our research via letters written to health centers that hold a parenting class at least once a month, 116 hospitals, clinics, and mother-child health research groups. We collected and distributed by mail 950 copies of requests, questionnaires, and return envelopes through five approved hospitals, clinics, 10 health centers and mother-child health research groups. The data collection period was from February to September 30th, 2016.

(2) Analysis method

Item analysis included the performing of (1) simple tabulation of frequency distribution graphs, average values, and standard deviations, (2) examination of changes in $\alpha$ coefficient when each question is excluded, (3) calculation of the correlation coefficient between items, (4) item-total correlation, and (5) exploratory factor analysis using SPSS statistical software (Ver. 24.0). Next, we examined the degree of model conformance using confirmatory factor analysis with AMOS (Ver. 24.0), a structural equation model software. In the examination of reliability, Cronbach’s $\alpha$ coefficient was calculated to verify internal consistency. In examining validity, we adopted criterion-related validity and construct validity in order to statistically examine the scale’s validity.

4.3 Ethical Consideration

In conducting this survey, we explained the research objective, method, significance, confidentiality, that it was possible to cooperate or not cooperate with the research through requests to hospitals, clinics and facility managers and the heads of nursing departments, and obtained consent for research cooperation. The explanation of this survey to the father, who is the subject of this study, was made in writing and verbally, and the replies were voluntary. This research was approved by the ethics committee of the university to which the researchers belong.

5. Results

We received 286 copies (recovery rate: 30.1%) of the returned questionnaires, and 271 copies that answered all of the questions about depression included in the analysis.

5.1 Background of Subjects

The average age of the father was 34.3 years (21 to 64 years of age), and the average length of marriage was two years and six months (six months to 18 years). The academic background of the subjects was as follows: 158 undergraduates (58.3%), the majority, followed by 39 postgraduates (14.4%). The occupation of the subjects was 201 company employees (74.2%) and 32 government employees (11.8%). Also, 236 (87.1%) of the targets were nuclear families (Table 1).

5.2 Preparation of the SSFRC Scale

The total score for the scale was a maximum of 112, a minimum of 47, for an average of 88.27 (SD 0.64), and a median of 89. The normality of the total score distribution was verified to be normal by performing a
Shapiro-Wilk test. Since we confirmed that the Item-Total correlation was abnormal, Spearman’s product-moment correlation coefficient was calculated, and items below 0.2 were targeted for deletion. As a result, we obtained the following table.

Table 1 Characteristics of the father’s background.

| Item                              | Headcount | n = 271 (%) |
|-----------------------------------|-----------|-------------|
| **Age**                           |           |             |
| Less than 29 years old            | 66        | 24.4        |
| 30-34                             | 89        | 32.8        |
| 35-39                             | 60        | 22.1        |
| Over 40 years old                 | 56        | 20.7        |
| **Age of marriage**               |           |             |
| Less than 2 years                 | 123       | 45.4        |
| 2-4 years                         | 103       | 38          |
| Over 5 years                      | 138       | 16.6        |
| **Brothers and Sisters**          |           |             |
| One                               | 93        | 34.3        |
| Two                               | 86        | 31.7        |
| Three                             | 64        | 23.6        |
| Other                             | 28        | 10.3        |
| **Educational background**        |           |             |
| Junior high school                | 4         | 1.5         |
| High school                       | 35        | 12.9        |
| Technical school                  | 33        | 12.2        |
| University                        | 158       | 58.3        |
| Graduate school                   | 39        | 14.4        |
| Other                             | 2         | 0.7         |
| **Employment status**             |           |             |
| Company employee                  | 201       | 74.2        |
| Self-owned business               | 18        | 6.6         |
| Student                           | 1         | 0.4         |
| Government workers                | 32        | 11.8        |
| Farming                           | 4         | 1.5         |
| Other                             | 15        | 5.5         |
| **Age of pregnancy**              |           |             |
| Less than 15 weeks                | 20        | 7.4         |
| Less than 16-27 weeks             | 106       | 39.1        |
| Less than 28-35 weeks             | 119       | 43.9        |
| Other                             | 26        | 9.6         |
| **Housemate**                     |           |             |
| Nuclear family                    | 236       | 87.1        |
| Stepfamily                        | 35        | 12.9        |
| **Pregnant status**               |           |             |
| Spontaneous pregnancy             | 234       | 86.3        |
| Artificial pregnancy              | 34        | 12.5        |
| Other                             | 3         | 1.1         |
| **Contact with little kids**      |           |             |
| Yes                               | 221       | 81.5        |
| No                                | 49        | 18.1        |
| Other                             | 1         | 0.4         |
| **Mother’s class**                |           |             |
| Number of participants            |           |             |
| 0                                 | 129       | 47.6        |
| 1                                 | 82        | 30.3        |
| 2                                 | 39        | 14.4        |
| 3                                 | 12        | 4.4         |
| Over 4                            | 9         | 3.3         |
| **Child care consultant**         |           |             |
| Presence                          | 227       | 83.8        |
| Unknown                           | 37        | 13.7        |
| Absence                           | 7         | 2.6         |
| **Leave own child at a nursery**  |           |             |
| Yes                               | 200       | 73.8        |
| Unknown                           | 45        | 16.6        |
| No                                | 22        | 8.1         |
| Other                             | 4         | 1.5         |
| **Birth father**                  |           |             |
| Strict                            | 80        | 29.5        |
| Friendly                          | 104       | 38.4        |
result, the correlation coefficient between the score of each item and the total score of all items was 0.32 to 0.58 ($p < 0.01$), and no items were deleted.

Factor analysis was performed using the principal factor method and promax rotation. In determining the number of factors, a criterion with an eigen value of 1 or more was established, items with a factor loading of 0.35 were selected and not met, and 14 items were finally extracted with four factors. The 14-point factor correlation coefficient was 0.06 to 0.50. Factor 1 consisted of four items, Factor 2 consisted of three items, Factor 3 consisted of five factors, and Factor 4 consisted of two items. The content of the four-factor items was examined at the experts’ meeting, and the first factor consisted of items related to favorable feelings about the family and was named “favorable feelings about the family”. The second factor consisted of negative feelings about things when becoming a parent, and was named “negative feelings”. The third factor consisted of items related to changes in awareness of becoming a parent, and was named “changes in awareness”. The fourth factor consisted of items to learn about child-rearing, such as attending prenatal classes and parenting classes, and was named “knowledge acquisition” (Table 2).

### 5.2.1 Examination of Reliability

The entire scale and the Cronbach’s $\alpha$ coefficient of each factor were calculated, and the scale’s internal consistency was examined. The $\alpha$ coefficient for the SSFRC scale was 0.75 and that for each subscale ranged from 0.62 to 0.83 (Table 3).

### 5.2.2 Examination of Validity

(1) Criterion-related validity

For the criterion-related validity, we used the “positiveness scale for child-rearing” of the “maternity readiness scale” [7] and confirmed the correlation coefficient between the scale score and the lower scale score. As a result, the first factor was “favorable feelings

| Item                                                                 | F1     | F2     | F3     | F4     | Communality |
|----------------------------------------------------------------------|--------|--------|--------|--------|-------------|
| As a parent, I want to play with my children and go shopping with them. | 0.880  | 0.055  | 0.007  | -0.165 | 0.702       |
| I want to always respect my children.                                 | 0.752  | 0.080  | -0.125 | 0.074  | 0.514       |
| I want to raise our children jointly as husband and wife.            | 0.692  | 0.000  | -0.127 | 0.164  | 0.491       |
| I feel joy and excitement about the birth of my child.               | 0.674  | -0.101 | 0.171  | -0.062 | 0.592       |
| I feel anxious about becoming a parent.                               | 0.055  | 0.954  | 0.036  | -0.007 | 0.893       |
| I worry about how to treat my child after birth.                      | -0.052 | 0.725  | 0.088  | 0.025  | 0.543       |
| I am bewildered as to whether I can become a parent.                  | 0.054  | 0.698  | 0.005  | 0.025  | 0.480       |
| Knowing I was going to become a father, I became more patient.        | -0.092 | 0.088  | 0.748  | -0.039 | 0.484       |
| I feel a sense of responsibility as a parent when I hear, see, or feel.| 0.104  | -0.090 | 0.631  | 0.079  | 0.546       |
| During my wife’s pregnancy, people said that the atmosphere has changed, and my feeling has changed. | -0.197 | 0.089  | 0.555  | 0.009  | 0.262       |
| I realized I am a father after I learned of my wife’s pregnancy.      | 0.143  | -0.198 | 0.495  | 0.092  | 0.449       |
| I think a lot about the prenatal training of my child.                | 0.073  | 0.129  | 0.473  | -0.057 | 0.240       |
| It is better to participate in mothering or parenting classes as a couple. | -0.058 | -0.008 | -0.027 | 0.782  | 0.567       |
| I would like to visit the facility where my wife is to give birth.     | 0.111  | 0.084  | 0.082  | 0.532  | 0.398       |

**Table 2** 14 factor structure items of the DSFRC.
about the family”, the second factor was “negative feelings”, the third factor was “changes in awareness”, the fourth factor was “knowledge acquisition”, and the correlation to the “positiveness scale for child-rearing” was confirmed at 0.52 (p < 0.01), -0.36 (p < 0.01), 0.41 (p < 0.01), and 0.30 (p < 0.01), respectively, indicating the validity of the criteria (Table 4).

(2) Construct validity

Exploratory factor analysis was conducted on the structure concept of the SFRC scale on 24 items, excluding items deemed inappropriate in the item analysis. In this process, there were 10 items consisting of items 4, 7, 8, 9, 18, 19, 20, 22, 23, and 24 for which a ceiling effect was confirmed. Therefore, we confirmed that there was abnormal distribution in the histogram, and response bias was confirmed using the frequency distribution table. As a result, the replies were highly biased toward “strongly agree”, but it was confirmed that the frequency distribution could be seen in other replies, so the items were not deleted and the 14 items of the four factors were finally extracted.

Furthermore, in order to examine the relationship between the structure concepts, we examined the degree of model conformance with confirmatory factor analysis using SPSS AMOS (Ver. 24.0). The validity of the SFRC components and factor structure was verified by calculating the model fit index GFI (Goodness-of-Fit Index), AGFI (Adjusted GFI), CFI (Comparative Fit Index), and RMSEA (Root Mean Square Error of Approximation). For GFI, AGFI, and CFI, the closer the value is to 1, the better its fit to the data [8, 9]. Each question was made an observation variable, and four structure concepts were established. As a result, the chi-square was 166.42, p < 0.001, GFI = 0.92, AGFI = 0.88, CFI = 0.92, and RMSEA = 0.07 (Table 5). RMSEA exceeded the recommended value of 0.05, but was 0.1 or less, so although there were some problems with the data fit of the model, the result

| Characteristic number | 3.77 | 2.47 | 1.66 | 1.1 |
|-----------------------|------|------|------|-----|
| Contributing rate (%) | 23.48| 14.99| 8.48 | 4.19|
| Cumulative contribution ratio (%) | 23.48| 38.47| 46.95| 51.14|

Table 3 Spearman’s rank-correlation coefficient for DSFRC of 4 subscales, DSFRC of total score and childcare scale.

|          | F1          | F2          | F3          | F4          | Total score | F5 (Childcare scale) |
|----------|-------------|-------------|-------------|-------------|-------------|----------------------|
| F1 (Favorable feeling about the family) | 1           |             |             |             |             |                      |
| F2 (Negative feelings)             | -0.150*     | 1           |             |             |             |                      |
| F3 (Change of awareness)           | 0.361**     | 0.021       | 1           |             |             |                      |
| F4 (Knowledge acquisition)         | 0.272**     | 0.081       | 0.360**     | 1           |             |                      |
| Total score                       | 0.443**     | 0.524**     | 0.751**     | 0.561**     | 1           |                      |
| F5 (Childcare scale)              | 0.523**     | -0.363**    | 0.414**     | 0.303**     | 0.253**     | 1                    |

** p < 0.01, * p < 0.05 (2-tailed test).

Table 4 DSFRC of subscale, descriptive statistics of total score, Cronbach’s alpha of the explained variance (n = 271).

|                      | Item’ number | Alpha factor | Average | SD  | Minimum | Median | Maximum |
|----------------------|--------------|--------------|---------|-----|---------|--------|---------|
| Favorable feelings  | 4            | 0.82         | 18.88   | 2.37| 4       | 10     | 20      |
| Negative feelings   | 3            | 0.83         | 7.64    | 3.78| 3       | 8      | 15      |
| Change of awareness | 5            | 0.71         | 16.70   | 5.20| 5       | 13     | 25      |
| Knowledge acquisition| 2            | 0.62         | 8.12    | 1.95| 2       | 6      | 10      |

Table 5 The goodness- of- fit model.

|                  | χ²   | df  | CMIN/DF | GFI  | AGFI  | RMSEA |
|------------------|------|-----|---------|------|-------|-------|
| 4 factors of model (14 items) | 166  | 71  | 2.34    | 0.92 | 0.88  | 0.07  |
was judged to be acceptable, and this was made the final model.

6. Considerations

6.1 About the Scale’s Reliability

The α coefficient of all 14 items on the SSFRC scale was 0.75, and the four subscales ranged from 0.62 to 0.83. If the α coefficient is a numerical value of 0.7 or more, it is said that the scale’s internal consistency is high [10], and an α coefficient of 0.7 is used as a criterion for determining the internal consistency of the scale. “Knowledge acquisition”, a subordinate scale of the SSFRC scale, was 0.72 or less at 0.62, but the α coefficient was 0.7 or more for the scale as a whole, so we believed that reliability was obtained.

6.2 Content Validity

The procedure for verifying the contents’ validity comprehensively captures the concepts to be measured whether or not each item that constitutes the scale belongs to the framework of the content to be measured in the process of the scale’s development. In addition, we incorporate the views of experts and people engaged in related work to confirm whether the content was selected with bias or not. We show that the content’s validity has been obtained because the scale was developed through these series of research processes.

6.3 Construct Validity

The first factor in the construct concept of the SSFRC’s tentative draft of the subscale was “favorable feelings about the family”. It consists of items that pertain to “child-rearing”, “thoughts about children”, and the “parents’ role”. It also suggested that the father expressed his feelings of acceptance of the new family as a husband showing affection for child and wife as a father, such as his feelings about the new family, the development of positive feelings as a father, and positiveness about child-rearing.

The second factor was “negative feelings”, which consists of items pertaining to “becoming a parent”, “thoughts about children”, and the “parents’ role”. This represented a state of conflict in the developmental stage of becoming a father, as the father experienced internal conflict while taking on the role of a new parent.

The third factor was “changes in awareness”, which consists of items pertaining to “thoughts about pregnancy”, “feelings about hearing the child’s heart-beat, ultrasound, and fetal movement”, “becoming a parent”, and “thoughts about children”. It became clear that awareness as a father develops from within the self, such as self-growth as a father, a sense of responsibility as a parent, the actual feeling of becoming a parent, and concern for the fetus.

The fourth factor was “knowledge acquisition”, which consists of items pertaining to “mothering” classes or parenting classes”. As a specific behavior of the parental role, it became clear that the behavior of the father, who is trying to proactively collect information and acquire knowledge about the birth of the child, has changed.

Next, we confirmed the validity of this component and factor structure using confirmatory factor analysis, and verified a model of secondary factor analysis in which the SSFRC was placed as the top factor affecting the four factors extracted by exploratory factor analysis. From the higher-order factor of the SSFRC, the standardized variables showed and supported a significant difference of -0.06 to 0.98 (p < 0.001) from the latent variables of “favorable consideration toward family”, “negative feelings”, “change of awareness”, and “knowledge acquisition”. In addition, although there are some problems with the data suitability of the model, since the values of other GFIs are favorable, there is little divergence between the model and the data. As this result was within acceptable limits, this was taken as the final model.

6.4 Criterion-Related Validity

We calculated the correlation coefficient between
the scale’s total score and factor score for the “positiveness scale for child-rearing” that measures awareness and feelings about childcare work, and examined the criterion-related validity. Next, we verified the normality of the total points for positiveness toward child-rearing and the total points for the SSFRC, and confirmed that the distribution was abnormal. Therefore, as a result of calculating Spearman’s rank correlation coefficient, we confirmed that the first factor of “favorable feelings about the family”, the second factor of “negative feelings”, the third factor of “change of awareness”, and the fourth factor of “knowledge acquisition” scored 0.52 ($p < 0.01$), -0.36 ($p < 0.01$), 0.41 ($p < 0.01$), and 0.30 ($p < 0.01$) on the positiveness scale for child-rearing, respectively. In particular, a strong correlation was confirmed between the first and third factors. There was a negative correlation between the second factor and the “positiveness scale for child-rearing”.

The criterion-related validity had a weak correlation of 0.25 ($p < 0.01$) between the total score and the “positiveness scale for child-rearing”. The SSFRC consisted of items that the father positively viewed for child-rearing, and the positiveness scale for child-rearing included seven out of 15 items with negative content. Therefore, we speculated that the positive viewing of the second factor of the SSFRC might have resulted in a low relevance to the positiveness scale for child-rearing. Yamada et al. [11] stated, “Not only was there evidence of a high correlation with external criteria (convergent evidence), there was also evidence of actually low correlation with criteria that are apparently unrelated (discriminatory evidence)”. For this reason, when compared with external criteria, the correlation between the subscales was either high or low depending on how the subscales were viewed, but even if low, it is considered discriminatory evidence. This was thought to be discriminatory evidence, and it was believed that a certain validity of the SSFRC was assured. Because the correlations of data changes depend on how the subscales are viewed, issues remain regarding how to view “negative feelings”, so further studies are needed.

6.5 Potential Use of the Scale

Today, while it is said that fathers participate in child-rearing, child-rearing support for fathers is inadequate. Makino et al. [12] stated that “a scale for mothers that is also used for fathers is inappropriate in research on the fathers’ child-rearing”. Therefore, the SSFRC developed in this study has significance as one of the few scales for the fathers’ child-rearing, and was thought to be useful for guidance to support the fathers’ child-rearing as one form of data for healthcare workers on the fathers’ child-rearing readiness in prenatal classes.

7. Conclusions

(1) The SSFRC scale, which measures the fathers’ readiness to raise children, consists of four subscales and 14 questions.

(2) The SSFRC scale ensured the validity of this component and factor structure due to its reliability based on internal consistency, construct validity, and confirmatory factor analysis.

(3) It is desirable that we refine the representation of the SSFRC scale and evaluate and support the father in consultation and collaboration with healthcare professionals and midwives on the timing and support of this survey. In addition, a future task is to verify the reliability and validity of further scales by expanding the number of subjects and target areas.

(4) With the psychosocial environment for nurturing the qualities conducive to becoming a parent collapsing, support for preparing to become a parent is needed. It can be considered a useful scale that can help fathers prepare for child-rearing from the perspective of medical professionals and midwives.

8. Limitations and Challenges of This Research

In the SSFRC scale that was prepared in this study,
generalizations are limited because the subject of the survey is limited to fathers who participated in mothers’ classes and parenting classes in Kanto and Kansai. In particular, the problem of how to view high-scoring fathers still remains. In the future, the area of study will be expanded and a cross-sectional assessment will be performed to verify the practicality of the SSFRC scale.

Acknowledgments

We would like to extend our deep appreciation to the fathers who cooperated in our research, hospitals, which are research facilities, mother-child health research groups, clinics and health centers, and to the teachers and Yuka Sunaga who also cooperated in our research.

Note: This study was conducted thanks to a grant from the 2015 MEXT Grant-in-Aid for Scientific Research (Scientific C assignment number 15K01768).

References

[1] Miyamoto, T., and Fujisaki, H. 2008. “Trends in Research on Fathers with Infant Children in Japan.” Annual Bulletin of Institute of Psychological Studies 11: 57-66.
[2] Ohta, M. 2008. “Fathers, Fatherhood and Children: The Image of Modern Fathers through History.” Mother and Child Wellbeing around The World 65: 2-5.
[3] Miura, S., and Kato, N. 2004. “A Study on the Process of Becoming a Father for the First Time.” Journal of Ibaraki Maternal Health 24: 28-38.
[4] Tanaka, M., Fuse, Y., and Takano, M. 2011. “Awareness of Fatherhood: What Are the Factors to Realize in Being Fathers.” Maternal Health 52 (1): 71-7.
[5] Kawakami, A., and Ushio, R. 2008. “Factors about the Role Awareness for the Child Care of Father and the Support Stratagem.” The journal of Child Health 32: 496-503.
[6] Decker, K. 2016. “Concept Analysis of Father Consciousness in Childcare.” Journal of US-China Medical Science 13: 86-94.
[7] Aoki, M., and Matsui, Y. 1988. “Post Adolescents’ Development of Femininity, Study(II): Structure of Heterosexuality and Maternal Readiness.” Journal of Hokkaido University of Education 39: 85-94.
[8] Ishii, H. 2005. “I Want to Know the Statistical Analysis of this—How to Summarize Health, Nursing, Psychology, and Education Research.” Tokyo Bunkodo, 60-2.
[9] Toyota, H. 2007. Covariance Structure Analysis. AMOS Edition. Tokyo: Toyo Books, 18-9.
[10] Konishi, S. 2004. Psychological and Survey Data Analysis by SPSS and Amos. Tokyo: Tokyo Books, 30-155.
[11] Yamada, T., and Suzuki, M. 2017. Psychological Statistics by SPSS. Tokyo: Tokyo Books, 91-7.
[12] Makino, T., Kanaizumi, S., Izu, A., and Sakou, K. 2011. “Trends and Tasks in Research Concerning Father’s Childcare Maternal Nursing.” The Journal of Child Health 70 (6): 780-9.