

Parenting Stress of Chinese Mothers Living and Child-Rearing in Japan and Related Factors

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Abstract

Background: Parenting stress causes physical and psychological problems for mothers during child-rearing and negatively impacts the growth and development of their children. We assumed that Chinese mothers living in Japan would experience particularly high levels of parenting stress and difficulty because they had to leave the environment in which they were born and raised in a different language and culture. **Objective:** The objective is to identify the actual situation and related factors of parenting stress among Chinese mothers in Japan. **Methods:** From July to October 2021, an online, anonymous, self-administered questionnaire was administered to the mothers of children aged 6 months to 5 years, and the data from 93 mothers were statistically analyzed. **Results:** Mothers in the study had one (45.2%) or two (45.2%) children in their care, and 23.7% of the mothers' husbands were Japanese. The average score of total PSI-SF-15 of the mothers in this study was slightly higher than that of mothers raising children in China. Additionally, "I think it is a shame not to practice Chinese customs", "I feel that Chinese customs are not respected", "the number of children with diagnosed diseases", "Social Support Rating Scale (SSRS) total score" and "father's nationality" influenced the parenting stress of the mothers in this study. **Conclusion:** In order to reduce parenting stress among Chinese mothers in Japan, it is necessary to respect and support the practice of Chinese customs, create an environment in which it is easy to discuss children's illnesses, and educate mothers to promote the use of social support.

Keywords

Parenting Stress, Chinese Mothers in Japan

1. Introduction

In Japan, one of the top priorities in the Sukoyaka Oyako 21 (Healthy Parenting 21) is to provide close support for parents experiencing difficulties in raising their children [1]. Moreover, with the recent increase in the number of foreign residents in Japan, the need for childcare support for foreign residents has been stressed [2].

To alleviate the labor shortage and depopulation, Japan has promoted the immigration of foreigners to Japan. Further, the number of foreign residents in 2019 increased to 31,187,179, an increase of 1,085,077 from the previous year and accounting for 2.47% of Japan's total population [3]. In particular, Chinese people comprise the largest group, accounting for 49.5% of the total foreign resident population [4]. Among foreign residents in Japan, women of parenting age between 20 and 44 years account for 55.1% of the total number of women, of which 56.1% are Chinese residents [4]. Further, the number is expected to increase in the future. Additionally, it has been reported that the parenting stress of Chinese mothers in Japan is higher than that of Japanese mothers or Chinese mothers raising children in China [5], and it is urgent to consider support measures for Chinese mothers in Japan.

In previous studies on parenting stress, it has been shown that maternal characteristics, such as the mother's age [6], employment status [7], social support, such as how much support is available for parenting, and child characteristics, such as the child's personality [8] [9], affect parenting stress. Although there have been few studies focusing on Chinese mothers living in Japan, it has been reported that they are more likely to suffer from the distress of raising their children in a culture different from that of China [10] [11]. Furthermore, the distress leads to parenting stress, and even if they would no longer have problems in daily conversation in Japanese, they would still have difficulties in reading and writing. For instance, delays in getting ready for school because they cannot read letters from kindergarten and their distress can affect their parenting. In China, about 80% of grandparents are involved in raising their grandchildren. Nevertheless, it is difficult for Chinese mothers to receive social support from their parents when raising children in Japan because Chinese grandparents cannot obtain visas [11]. Moreover, even if they can get visas, they cannot stay in Japan for more than three months [12].

In light of these considerations, it is predicted that the factors related to parenting stress among Chinese mothers in Japan have a different structure from those of Japanese mothers. Nonetheless, to the best of our knowledge, there has been no study of the factors related to parenting stress among Chinese mothers in Japan.

Thus, this study aimed to identify the actual situation and related factors of parenting stress among Chinese mothers who have infants over six months old. Furthermore, by identifying the factors related to parenting stress among Chinese mothers in Japan, this study will provide a framework to consider suppor-

tive measures for Chinese mothers in Japan to cope with parenting stress.

2. Methods

2.1. Participants

2.1.1. Research Participants

Chinese mothers living in Japan who are raising children aged 6 months to less than 6 years old in Japan.

2.1.2. Recruitment Criteria

- 1) The participant must reside in Japan at the time of the survey.
- 2) The participant must identify themselves as Chinese.
- 3) The participant must be rearing a child between the ages of 6 months and 6 years. If there is more than one child, the youngest child must be between the ages of 6 months and 6 years.

2.1.3. Sample Size

The sample size was calculated using G-power. In multiple regression analysis, the sample size was 87 for effect size 0.5, power 0.8, and significance level < 5%.

2.2. Method of Investigation

From July to October 2021, Chinese mothers living in Japan who met the inclusion criteria via SNS (WeChat, an app commonly used in China) were asked to participate in this survey.

2.3. Composition of the Questionnaire and Survey Items

The questionnaire includes basic characteristics of mothers, such as age, educational level, occupation and employment status, working hours, years in Japan, Japanese language proficiency level, health status, concerns, time spent raising the youngest child, time spent raising all children, and time spent on household chores; as well as basic household characteristics, such as the father's nationality, his age, household income, presence of persons other than children and the father living together, presence of persons cared for by the mother and time required for the care, and the husband's participation time in childcare. For children, six items including age, gender, presence of diagnosed disease and name of the diagnosis, frequency of hospital visits, need of care other than those of the daily life, such as medication management and time required for the care, as well as a free-text question for other concerns about the child were analyzed. Regarding mothers with more than one child, responses to each item were obtained for each child. Further, the responses for the youngest child and those for other siblings were analyzed separately.

The Chinese version of the Social Support Rating Scale (SSRS) [13] was used to determine the status of support from family members and social support from outside the family. Additionally, to capture the mothers' perceptions of the family members' support, we added an item asking the mothers' satisfaction with the

family support.

Parenting stress was measured using the Parenting Stress Index Short Form 15 items (hereafter referred to as PSI-SF-15), a shortened version of the Parenting Stress Index (hereafter referred to as PSI) created based on Abidin's [14] model.

Regarding the distress of living in a different culture, we created seven items with reference to the questionnaire of [5], which measures what kind of stressors Chinese mothers perceive in the hospital immediately after childbirth by living in a different culture.

All the questionnaires were written in Chinese. The questionnaire was pre-tested on Chinese mothers in Japan to confirm their surface validity, content validity, and reliability of some scales.

2.4. Method of Analysis

First, descriptive statistics were conducted for each basic characteristic, social support, distress of living in a different culture, and the total PSI-SF-15 score. Next, Pearson's product-moment correlation analysis was conducted for the total PSI-SF-15 score and each variable. Then, multiple regression analysis was performed using the stepwise method. The variables for which the product-moment correlation value was $p < 0.2$ as the explanatory variables and the total PSI-SF-15 score as the dependent variable.

Statistical analysis software SPSS version 26.0 for Mac was used. The significance level was set at 5%.

2.5. Ethical Considerations

This study was conducted with the approval of the research ethics review by the Medical Ethics Committee of the University of Tsukuba. Furthermore, the participants were informed that they were free to participate in the study, and that the information would be carefully handled so that individuals would not be identified when it was published in academic papers.

3. Results

The questionnaire was distributed to a group (500 people) to which many Chinese mothers in Japan belong using WeChat, and responses were received from 111 people. Of these, responses from 18 people in which important information was missing due to incorrect or incomplete answers were excluded. Responses from 93 people were included in the analysis (valid response rate: 83.8%).

3.1. Variables

3.1.1. Basic Characteristics of Mothers, Households, and Children Are Shown in Tables 1(a)-(c), Respectively

In terms of the mothers' proficiency level of the Japanese language, 6.5% of the mothers reported "difficult to communicate", 17.2% reported "greeting level", 52.7% reported "daily conversation level", and 23.7% reported "fluent". "Difficult to communicate" and "greeting level" were considered the beginner level,

Table 1. (a) Basic characteristics of the mothers; (b) Basic household characteristics; (c) Basic characteristics of children.

		(a)	
		n	%
		mean ± SD	
Age	20s	5	5.4
	30s	75	80.6
	40s	13	14.0
Educational level	junior high school	10	10.8
	high school	13	14.0
	junior college/technical college	15	16.1
	university/graduate school	55	59.1
Occupation	company employee	27	29.0
	self-employee	four	4.3
	part-time employee	22	23.7
	full-time housewife	40	43.0
Working hours (week)	Less than 20 hours	42	45.2
	20 - 29 hours	16	17.2
	30 - 39 hours	18	19.4
	40 hours or more	17	18.3
Years in Japan	Less than 3 years	5	5.4
	3 - 4 years	15	16.1
	5 - 9 years	28	30.1
	More than 10 years	45	48.4
Japanese language proficiency level	Difficult to communicate	6	6.5
	Greeting level	16	17.2
	Daily conversation level	49	52.7
	Fluent	22	23.7
Health status	good	82	88.2
	bad	11	11.8
Concerns	yes	12	12.9
	no	81	87.1
Time spent raising the youngest child (h)	weekday	11.0 ± 8.1	
	weekend or holiday	17.4 ± 7.7	
Time for housework (h)	4.2 ± 3.4		

Note: N = 93.

		(b)	
		n	%
		mean ± SD	
Father's nationality	China	71	76.3
	Japan	22	23.7

Continued

Father's age	20s	1	1.1
	30s	61	65.6
	40s	26	28
	50s	5	5.4
Household income (yen)	Less than 1,000,000	2	2.2
	1,000,000 to 2,999,999	6	6.5
	3,000,000 to 4,999,999	34	36.6
	5,000,000 to 6,999,999	24	25.8
	7,000,000 to 8,999,999	15	16.1
	9,000,000 to 10,999,999	4	4.3
	11,000,000 or more	8	8.6
Number of persons other than children and the father living together	Zero	84	90.3
	1	7	7.5
	2	1	1.1
	3	1	1.1
There is someone in mother's care	Yes	86	92.5
	No	7	7.5
Husband's participation time in childcare (h)	weekday		2.4 ± 3.2
	weekend or holiday		7.8 ± 7.0

Note: N = 93.

(c)

	n	%	mean ± SD
Number of children	1	42	45.2
	2	42	45.2
	3	9	9.7
The number of children the mother cares about	0	74	79.6
	1	15	16.1
	2	3	3.2
Number of children with diagnosed diseases	0	77	82.8
	1	12	12.9
	2	2	2.2
	3	1	1.1
	No answer	1	1.1
Number of children in the mother's care	0	80	86.0
	1	9	9.7
	2	2	2.2
	3	1	1.1
	No answer		

Continued

Frequency of hospital visits for all children (years)			2.7 ± 9.6
	male	43	46.2
Gender of the youngest child	female	48	51.6
	no answer	2	2.2
Youngest child's age in months			37.3 ± 18.5
Concern about the youngest child	no	79	84.9
	yes	14	15.1
The youngest child has a diagnosed disease	no	82	88.2
	yes	11	11.8
Care for the youngest child	no	81	87.1
	yes	11	11.8
	No answer	1	1.1
Frequency of hospital visits for the youngest child (years)			2.3 ± 9.2

Note: N = 93.

“daily conversation level” was considered the intermediate level, and “fluent” was considered the advanced level.

Regarding the basic characteristics of the family, 76.3% of the fathers were Chinese, and 23.7% were Japanese.

Regarding the characteristics of the children, 45.2% of the mothers had one child, 45.2% had two children, 9.7% had three children. The number of children with diagnosed diseases was 0 in 82.8% of the mothers, 1 in 12.9%, 2 in 2.2%, 3 in 1.1%, and no data in 1.1%. Further, 15.1% of the mothers responded that their youngest children were a concern, 16.1% responded that they were concerned with one child, and 3.2% responded that they were concerned about two children. The reasons for their concern about their children, according to the responses to the free-text question, regarded the children's “deteriorating health”, “lack of concentration”, “selfishness” among others.

3.1.2. Social Support

The SSRS total score is shown in **Table 2**. The mean SSRS total score was 35.12 (SD = 6.32; Range = 19 - 54), the mean objective support score was 8.08 (SD = 2.60; Range = 4 - 14), the mean subjective support score was 19.94 (SD = 4.08; Range = 10-29), and the support utilization score was 7.11 (SD = 1.98; Range = 3 - 12). The SSRS total scores showed a normal distribution. Cronbach's alpha coefficient was 0.949 for the SSRS total score, 0.981 for the objective support score, 0.612 for the subjective support score, and 0.599 for the support utilization score.

The mean total score of satisfaction with support from family was 30.16 (SD = 11.10; Range = 10 - 40).

Table 2. Social support.

	mean \pm SD	range
SSRS total	35.12 \pm 6.32	19 - 54
Objective support	8.08 \pm 2.60	4 - 14
Subjective support	19.94 \pm 4.08	10 - 29
Support utilization	7.11 \pm 1.98	3 - 12
The total score of satisfaction with family support	30.16 \pm 11.10	10 - 40

Note: N = 93.

3.1.3. The Distress of Living in a Different Culture

Items related to the distress of living in a different culture are shown in **Table 3**. The largest number of respondents (41.9%) answered that they had difficulty learning Japanese. Further, 19.4% answered that they felt sorry that they could not practice Chinese customs, 26.9% answered that they had been discriminated against because they were Chinese, 15.1% answered that Chinese customs were not respected, and 15.1% answered that their child had been discriminated against.

3.2. Parenting Stress

The total score and sub-scores of the PSI-SF-15 scale are listed in **Table 4**. The mean total score of PSI-SF-15 was 36.35 (SD = 9.04, Range = 15 - 61), the mean score of “parental distress” was 13.83 (SD = 3.63, Range = 5 - 20), the mean score of “parent-child dysfunctional interaction” was 9.56 (SD = 3.41, Range = 5 - 21), and the mean score of “difficult child” was 12.97 (SD = 4.16, Range = 5 - 25).

The mean scores for each question on the PSI-SF-15 scale ranged from 1.74 to 3.27, with the highest scoring items being 3.27 ± 1.08 for “13. There are some things that my child does that bother me” in the “difficult child” domain, followed by 3.15 ± 1.03 for “2. I feel that I cannot do most of the things I want to do after having a child” and 3.04 ± 1.19 for “5. I cannot enjoy things as much as I used to” in the “parental distress” domain. The total PSI-SF-15 scores showed a normal distribution. The Cronbach’s alpha coefficient was 0.876 for the total PSI-SF-15 score, 0.733 for parental distress, 0.853 for parent-child dysfunctional interaction, and 0.836 for difficult children.

3.3. Relationship between Each Variable and Parenting Stress

Pearson’s product moment correlation coefficients with the total PSI-SF-15 scores were calculated, and the variables that were found to be highly correlated were the following.

Japanese language proficiency level ($r = -0.248$, $p = 0.016$) from the mother’s basic characteristics, father’s nationality ($r = -0.160$, $p = 0.126$) and the number of persons other than children and the father living together ($r = -0.261$, $p =$

Table 3. Distress of living in a different culture.

		n	%
I am having a hard time learning Japanese.	no	54	58.1
	yes	39	41.9
Japanese food is not to my taste and sometimes unbearable!	no	89	95.7
	yes	4	4.3
I am sometimes confused because my ideas are different from the guidance of experts (medical staff, childcare workers, etc.)	no	84	90.3
	yes	9	9.7
I think it is a shame not to practice the traditional holiday customs (such as eating zongzi (dumplings) during Dragon Boat Festival and celebrating Chinese New Year) as we do in China.	no	75	80.6
	yes	18	19.4
I have been discriminated against because I'm Chinese.	no	68	73.1
	yes	25	26.9
My country's customs are not respected.	no	79	84.9
	yes	14	15.1
My child has been discriminated against because they are Chinese (or their mother is Chinese)	no	79	84.9
	yes	14	15.1

Note: N = 93.

Table 4. (a) Parenting stress; (b) Questions on the PSI-SF-15.

(a)		
	Mean ± SD	Range
Total PSI-SF-15	36.35 ± 9.04	15 - 61
Parental distress	13.83 ± 3.63	5 - 20
Parent-child dysfunctional interaction	9.56 ± 3.41	5 - 21
Difficult child	12.97 ± 4.16	5 - 25

Note: N = 93.

(b)		
	Mean ± SD	Range
1. After I had a child, I could not try new and different things.	2.52 ± 1.02	1 - 5
2. I feel that I can hardly do what I want to do after having a child.	3.15 ± 1.03	1 - 5
3. I often feel regret or discomfort buying clothes for myself.	2.56 ± 1.02	1 - 5
4. I always feel like I cannot have fun when I go to a party.	2.56 ± 0.96	1 - 5
5. I do not enjoy things as much as I used to.	3.04 ± 1.19	1 - 5
6. My child rarely does anything that pleases me.	2.04 ± 0.79	1 - 4
7. I sometimes feel that my child does not like me and does not want to be around me.	1.74 ± 0.75	1 - 5
8. My child does not laugh as much as I thought they would.	1.83 ± 0.89	1 - 4
9. My child cannot do as much as I had hoped.	1.98 ± 0.94	1 - 5

Continued

10. My child takes a long time to get used to new things and does not do them easily.	1.97 ± 0.90	1 - 5
11. I think my child is very grumpy and cries easily.	2.13 ± 1.01	1 - 5
12. I think my child is emotional and always in a bad mood.	2.33 ± 1.10	1 - 5
13. My child does some things that concern me a lot.	3.27 ± 1.08	1 - 5
14. My child reacts very strongly to something unpleasant.	2.56 ± 1.08	1 - 5
There are some things that my child does that bother me a lot.	2.68 ± 1.09	1 - 5

Note: N = 93.

0.011) from the household's basic characteristics, care for the youngest child ($r = 0.209$, $p = 0.046$) and the number of children with diagnosed illnesses ($r = 0.269$, $p = 0.010$) and the number of children in care ($r = 0.289$, $p = 0.005$); from social support, SSRS total score ($r = -0.335$, $p = 0.001$) and total score of satisfaction with family support ($r = -0.302$, $p = 0.03$); and from the distress of living in a different culture, "I am sometimes confused because my ideas are different from the guide of experts guidance" ($r = 0.250$, $p = 0.016$) and "I think it is a shame not to be able to practice Chinese customs" ($r = 0.404$, $p < 0.001$) and "I feel that Chinese customs are not respected" ($r = 0.385$, $p < 0.001$) and "My child has been discriminated against" ($r = 0.238$, $p = 0.022$) were extracted.

3.4. Factors Associated with Parenting Stress (Table 5)

In terms of factors associated with parenting stress, five variables were extracted, including "I think it is a shame not to be able to practice Chinese customs" ($\beta = 0.292$, $p = 0.001$), "I feel that Chinese customs are not respected" ($\beta = 0.270$, $p = 0.003$), the number of children with diagnosed illnesses ($\beta = 0.257$, $p = 0.003$), SSRS total score ($\beta = -0.249$, $p = 0.006$), and father's nationality ($\beta = -0.229$, $p = 0.009$). There was no multicollinearity among the factors with a multiple correlation coefficient of 0.642, a coefficient of determination of 0.413, and an adjusted coefficient of determination of 0.379 (VIF = 1.022 - 1.133).

4. Discussion

The parenting stress of 93 Chinese mothers in Japan and its related factors are discussed below in the order shown in the results.

4.1. Variables

4.1.1. Basic Characteristics of Mothers

Eighty-eight (94.6%) of the mothers in this study were in their 30s or older. The age of the mothers in this study tended to be older than the target populations of the two previous studies, [15]'s study of Chinese mothers in Japan and [16]'s study of mothers of infants in China. Additionally, 80.6% of the mothers in this study were in their thirties. Further, they belonged to the generation raised under the "One-Child Policy" that started in 1979 in China. A Chinese paper has

Table 5. Factors associated with the total PSI-SF-15 score.

	B	β	p-value	VIF
I think it is a shame not to practice Chinese customs.	6.654	0.292**	0.001	1.096
I do not think Chinese customs are respected.	6.807	0.270**	0.003	1.118
Number of children with diagnosed diseases	4.443	0.257**	0.003	1.022
SSRS Total Score	-0.363	-0.249**	0.006	1.133
Nationality of the child's father (Chinese = 0, Japanese = 1)	-4.939	-0.229**	0.009	1.088
Multiple correlation coefficient (R)	0.642			
Coefficient of determination (R ²)	0.413			
Adjusted (adjusted R) ²	0.379			

Note: N = 93; *p < 0.05; **p < 0.01.

shown that under this policy, a child grows up with excessive attention from their parents, lacks experience in interacting with their siblings, and the parents tend to lack skills in raising their child [17].

A total of 43.0% of respondents chose “full-time housewife” as their occupation, which was almost the same as the percentage in the study by [15], lower than the study by [9], higher than the study by [18] on mothers raising infants in China and the study by [16] on mothers of infants in China. These results indicate that it is difficult for Chinese mothers living in Japan to find a job and, consequently, childcare is currently left to the mother alone.

The level of education showed that the mothers in this study tended to have a higher level of education than the study by [19] on primary caregivers of infants in China and the study by [7] on mothers of infants in Japan.

4.1.2. Basic Characteristics of the Household

Compared to the study by [15], the proportion of Chinese fathers was similar, but the age of the fathers was higher.

The proportion of nuclear families was 90.3%, higher than a previous study [18]. More than 90% of the mothers in this study did not rely on their parents or siblings but only their spouses and themselves, suggesting that childcare was a great burden for them.

Although husbands in this study participated in childcare for an average of 2.44 hours on weekdays and 7.81 hours on weekends and holidays, it was clear that husbands were devoting more time to childcare compared to the results of [20]. There was no significant association between the nationality of the husband and the amount of time spent participating in childcare. Two reasons for the high level of husbands' participation in childcare were speculated. One is that husbands may be aware that their Chinese wives have difficulty raising children in Japan, and they may be trying to be more cooperative, talking to and taking care of the child. The other is that the survey period coincided with the recent

COVID-19 pandemic, and the husbands' participation in childcare may have increased due to their reduced working hours.

4.1.3. Basic Characteristics of Children

As in the previous study by [15], most of the mothers in this study were raising one or two children. It was found that the greater the number of children with diagnosed diseases, the higher the parenting stress among mothers, which was similar to the results of a study of mothers with chronic diseases in Japan [21], a study of parents with bronchial asthma in China [22], and studies of parents with disabled children [23] [24].

4.1.4. Social Support

The mean SSRS total score of 35.12 ± 6.32 of the mothers in this study was lower than the total score of 38.36 ± 6.02 of the mothers without postpartum depressive tendency [25] living in China. In particular, the scores of objective support and support utilization were low. A survey of foreign residents [26] showed that "the difficulty of obtaining information transmitted by public institutions" was the cause of the low level of support utilization in Japan among foreign permanent residents. In mainland China, information and consultation services about social support are rare. Therefore, it is inferred that the mothers in this study are not positive about using social support for parenting in Japan and think they should manage it within the family or relatives. As reported in studies [10] [11] [15] [36], which investigated Chinese mothers in Japan, Chinese mothers in Japan are in an isolated parenting situation where they cannot obtain parenting support from their parents in China.

4.1.5. Parenting Stress

Parental distress was the highest (13.83 ± 3.6) of the three subscale scores, followed by the difficult child (12.97 ± 4.16) and parent-child dysfunctional interaction (9.56 ± 3.41). The mean scores in a study of [27] were parental distress (11.29 ± 3.08), difficult child (13.06 ± 3.69), and parent-child dysfunctional interaction (9.90 ± 3.32), and compared to the present study, parental distress was slightly higher in the mothers in the present study. The parental distress score indicates the degree of regulation, social isolation, depression, and guilt caused by the parenting role. Because the mothers in this study were Chinese residents in Japan who had a heavy burden of raising their infants in isolation from their parents in Japan, where they were not born and raised, the degree of regulation, social isolation, depression, and guilt caused by the parental role was high. They felt particularly stressed in this domain.

4.1.6. Distress of Living in a Different Culture

As for the distress of living in a different culture, the most common response was that they had difficulty learning Japanese (41.9%). The second most common response was that they had experienced discrimination because they were Chinese (26.9%). In a study of Chinese students in Japan [28], refusal of part-time

jobs, harassment, and denial of nationality were raised as forms of discrimination. Nevertheless, the mothers in this study also experienced discrimination in interpersonal processes of parenting and in application procedures. According to their responses to the free-text question, they suffered similar forms of discrimination. It is reported that about 80% of the foreign residents do not know about the consultation service regarding discrimination and human rights [26]. In order to alleviate their suffering, it is necessary to fully inform them about the consultation service regarding discrimination and human rights as they live in a different culture.

4.2. Factors Associated with Parenting Stress

“I think it is a shame not to be able to practice Chinese customs” ($\beta = 0.292$, $p = 0.001$) and “I feel that Chinese customs are not respected” ($\beta = 0.270$, $p = 0.003$) were most strongly associated with increased parenting stress among the mothers in this study. The hypothesis that negative thoughts while living in a different culture can increase parenting stress has been substantiated in a similar study of foreign mothers in South Korea [29]. The inability to practice customs affects family cohesion, harmony, and the mother’s identity [30]. It leads to the dilemma of not being able to pass on her native culture to her children [31]. Additionally, the inability to practice customs reduces the opportunity to interact with relatives, affecting mothers’ parenting stress by leaving parenting anxiety unalleviated and unresolved.

A study [32] has shown that the lack of respect for customs can easily lead to conflicts, misunderstandings, and communication difficulties between mothers and staff in medical institutions, nursery schools, kindergartens, and other settings. Furthermore, it has been shown that Chinese mothers in Japan feel a bilateral cultural dilemma due to the lack of respect for the culture of their home country [31]. Additionally, they experience difficulties due to the inability to adapt past experiences and coping behaviors fostered in China to Japan [10], indicating that the lack of respect for their culture significantly impacted the mothers’ parenting stress in this study.

The number of children with diagnosed diseases ($\beta = 0.257$, $p = 0.003$) was associated with higher parenting stress among the mothers in the study. Mothers’ parenting stress of sick children is higher than that of mothers raising healthy children [21]. Additionally, foreign mothers raising sick children in a foreign country face greater parenting stress due to various factors such as difficulty in receiving information and assistance, difficulty in integrating into the local community [33], difficulty in using services [34], language barriers [11], and lack of interpreters [35].

The fact that the father’s nationality was Japanese lowered the mothers’ parenting stress in this study ($\beta = -0.229$, $p = 0.009$). One study [36] found that Chinese wives living in Japan with Japanese husbands often take on housework and childcare, and it is difficult for them to receive support from their in-laws.

However, in the present study, Chinese mothers living in Japan with Japanese husbands had significantly lower parenting stress. This was because, by relying on their Japanese husbands, the Chinese mothers could easily collect and use the information on childcare policies and services in Japan, which made it easier for them to have a vision for parenting and feel secure.

The SSRS total score ($\beta = -0.249$, $p = 0.006$) was associated with lower parenting stress among the mothers in this study. The results were similar to those reported in the article [33], which showed that interactional support, emotional support, and help reduced parenting stress among foreign mothers in Japan, and in the article [37], which showed that fathers' participation in child-rearing reduced parenting stress among mothers. These findings suggest that for foreign mothers raising children away from their home country, having a partner with whom they can go out together and share their concerns about parenting is an important factor in improving their psychological health. Although many Chinese mothers in Japan would like to use Japanese nursery schools, they have difficulties using them [15]. They know about but do not use supportive programs such as lifestyle counseling services and exchange events [34]. In mainland China, information and consultation services about social support for childcare are rare, and because of this, Chinese people tend to be less active in seeking social support [10]. The mothers in this study are possibly not active in using social support for their children's care but rather think that it should be handled within the family. In the future, it is necessary to provide mothers with information about services and supports, to inform them about how to use them in detail, and to educate them about the need to change their minds and seek social support.

4.3. Implications for Nursing Practice

The mothers in this study were distressed that their own culture and customs were not respected. The findings suggest that it is important for nurses to respect Chinese residents' traditional customs and lifestyles in Japan, such as postpartum confinement and 100th-day celebration, and support them, their husbands, and families to carry out these customs. Furthermore, in fostering respect for cultural diversity, it is considered important to provide opportunities for students to think about patient cases such as inpatient treatment and outpatient visits of foreign nationals in Japan in basic medical and nursing education institutions, including opportunities to receive introductory training regarding the native customs of foreign nationals in Japan in medical institutions. Moreover, it is important to assess and advise them on what they say and do by understanding and respecting their customs.

Chinese residents in Japan are not always active in seeking social support and believe that they should deal with things within the family and relatives rather than looking outside for social support. Therefore, it is necessary to educate them so that they can use social support more actively. In concrete terms, it is

necessary to disseminate information on how to use the programs and contact information on the websites and applications that Chinese people frequently access, such as Chinese diplomatic missions in Japan and Chinese friendship associations in Japan.

Our findings suggest that, in order to provide an environment in which Chinese mothers in Japan can consult with experts about their children's illnesses, information on hospitals and clinics should be posted in an easy-to-read format. Further, consultation services should be available online or by telephone. Specifically, it is necessary to provide information using plain Japanese and visually appealing photographs of children's symptoms and set up a multilingual consultation service. Nurses should also introduce parents to support groups and family associations for each child's illness.

If the fathers are not Japanese, the mothers are assumed to suffer a lack of information and support even more. Further, it is desirable to consider providing nursing and health services in a careful and highly individualized manner and educate the mothers to seek support outside the home actively.

4.4. Limitation of the Study

Since this study recruited research subjects from the WeChat group, it cannot be said that it was a group representing general Chinese mothers in Japan. In addition, since this survey was carried out under the Covid-19 pandemic, it is speculated that going out and refreshment of mothers and children were restricted, mothers spent more time with their children, and parenting stress tended to increase.

Furthermore, the question about the distress of living in a different culture did not fully distinguish between the distress of child-rearing and the distress of living in Japan itself. Therefore, it was possible that they were mixed.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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