

Current Status of Sexual Health in Korean Mothers Residing in Japan (*Zainichi* Mothers)

Chie Koh^{1,2,*}, Hiroya Matsuo²

¹Graduate School of Nursing, Osaka Prefecture University, Osaka, Japan

²Graduate School of Health Sciences, Kobe University, Kobe, Japan

Email address:

tsubaki@nursing.osakafu-u.ac.jp (C. Koh)

*Corresponding author

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Abstract: This study aimed to clarify the influence of traditional values and gender identity on sexual health among mothers in the Korean population living in Japan (*zainichi*). A cross-sectional survey was completed by 117 *zainichi* mothers aged 20–45 years in 2017. The questionnaire assessed participants' characteristics, views on marriage/ pregnancy/ childbirth, reproductive health, domestic violence, and housework and childrearing burdens. We also evaluated traditional value, sex role attitudes, marital satisfaction, and trust, hope, and satisfaction regarding the Japanese and *zainichi* communities. Most *zainichi* mothers were satisfied with their pregnancy (96.3%) and childbirth (98.2%) timing, but the actual number of children was below the desired number of children. Of all participants, 10.0%, 25.0%, and 33.3%, respectively, reported dissatisfaction with decision-making regarding contraception, abortion, and divorce, and most participants reported a housework burden that was “strong” (46.5%) or “very strong” (14.7%). Women's sexual health was associated with traditional values, gender role attitudes, marital satisfaction, and living in Koreatown. Ethnic school experience, hope for marriage, hope for a boy, and pressure for a boy were significantly associated with traditional values. *Zainichi* Korean mothers' wishes regarding contraception, abortion, and divorce are not respected. Many do not achieve their ideal number of children, and they are generally responsible for housework and childrearing. Traditional values, gender role attitudes, and marital satisfaction influence *zainichi* mothers' sexual health. Midwives and nurses should provide information and training about sexuality, and facilitate childcare support resources in the *zainichi* Korean community.

Keywords: Sexual Health, Cultural Characteristics, Confucianism, Gender Identity, Mothers

1. Introduction

Registered foreign residents in Japan account for 1.8% of the overall Japanese population [1]. Approximately 20% of all foreign residents are South Korean nationals [1]. Most Koreans in Japan (commonly referred to in Japanese as *zainichi*) settled in Japan through a special historical circumstances, do not have a communication gap, and receive the same maternal and child healthcare services as Japanese people [2]. Population composition and maternal and child health statistics for *zainichi* Koreans are similar to those of Japanese people [1, 2]. However, *zainichi* Korean society has a strong traditional gender identity that is based on Confucianism [2]. Traditional values have been reported

to be stronger among *zainichi* youth than in Japanese or South Korean youth [3]. In traditional Asian cultures, women play the major role in child rearing and are the primary caregivers in the home care setting [4, 5]. Inoue et al. reported that husbands may be unwilling to participate in housework, and thus women have to work at home for their family after finishing their paid work day [6]. Therefore, Confucian values may also influence sexual health among *zainichi* women. Koh et al. reported that unmarried Japanese, South Korean, and *zainichi* couples had positive feelings toward marriage and new family planning, whereas they experienced several sources of anxiety related to Confucian values and problems stemming from their different nationalities and roots [7]. However, no report has demonstrated whether traditional values and gender identity

affect sexual health (i.e., reproductive health and work-life balance) among *zainichi* mothers, who are particularly prone to housework and childrearing burdens [8]. Therefore, this study examined traditional values, egalitarian sex role attitudes, marital satisfaction, and views on community and sexual health (e.g., marriage/pregnancy, domestic violence, and housework/childrearing burden) among *zainichi* mothers. Furthermore, the present study discussed whether traditional values, gender identity, and marital satisfaction influenced sexual health in this population.

2. Subjects and Methods

2.1. Study Design and Sample

A cross-sectional survey was used in this study. In total, 117 childrearing *zainichi* mothers aged 20–45 years were enrolled in this study. The present authors distributed 316 questionnaires between May and July, 2017. First, the authors explained the purpose of the study to representatives of local *zainichi* mother and child groups. Next, the authors distributed questionnaires to members of groups that held childcare meetings. Completed questionnaires were returned individually by mail. Snowball sampling methods were used in combination with the above approach to *zainichi* mother and child groups. This study defined *zainichi* mothers as those who were born and raised in Japan, but have roots in Korea.

2.2. Measurements

2.2.1. Questionnaire

The questionnaire covered participants' characteristics (age, nationality, generation, partner's background, number of children, occupational style, household annual income, the ratio of women's income, experience of ethnic school in Japan, place of residence, and living in Koreatown or not), views on marriage/ pregnancy/ childbirth, reproductive health, domestic violence, and housework and childrearing burdens.

2.2.2. Traditional Values

Traditional values were evaluated with the Traditional Values Scale [9]. This scale comprises seven items: "Ancestors should be respected," "The eldest son should look after his parents," "A wife should follow her husband," "A marriage that parents oppose should not occur," "You should follow a senior opinion," "A son is necessary to continue lineage," and "Men should work outside and women should be in the home." Responses are on a 4-point Likert scale from "Strongly agree" to "Strongly disagree" (maximum 28 – minimum 7). These items correspond with Confucian traditional values, and are used to compare values in the East Asian region. A higher score reflects more traditional values. Cronbach's reliability coefficient for the Traditional Values Scale was 0.80 in this study.

2.2.3. Sex Role Attitudes

Sex role attitudes were evaluated using the 15-item short-form of the Scale of Egalitarian Sex Role Attitudes [10].

This scale measures equality attitudes regarding sexual roles. Each item is evaluated on a 5-point Likert scale from "Strongly agree" to "Strongly disagree" (maximum 75 – minimum 15). Higher scores reflect more egalitarian sex role attitudes, and lower scores reflect traditional attitudes. Cronbach's reliability coefficient for this scale was 0.88 in this study.

2.2.4. Marital Satisfaction

Marital satisfaction was evaluated with the Japanese version of the Quality Marriage Index [11]. This scale consists of six items: "We have a satisfactory married life," "My relationship with my husband is very stable," "Our marital relationship is strong," "I feel happy because of my relationship with my husband," "I really feel that my husband and I are like members of the same team," and "I think that all of my marital relationship is happy." Each item is evaluated on a 4-point Likert scale from "Quite true" to "Not at all true" (maximum 24 – minimum 6). A higher score indicates greater satisfaction with the marital relationship. Cronbach's reliability coefficient for the Quality Marriage Index was 0.95 in this study.

2.2.5. Cognition of Community (Trust, Hope, and Satisfaction)

This questionnaire included items that investigated how much trust, hope, and satisfaction the participant had with regard to the Japanese and *zainichi* Korean communities. We evaluated participants' cognition of their Japanese and *zainichi* Korean communities using a 4-point Likert scale ("Not at all" to "Very much"). During the analyses, we classified participants into two groups: a low group comprising responses of "Not at all" and "Not so much," and a high group comprising responses of "Somewhat" and "Very much." The results for the two groups were compared.

2.3. Data Analyses

First, questionnaire items were checked using simple tabulation. Scores for scales evaluating participants' traditional values, sex role attitudes, and marital satisfaction are presented as means \pm standard deviations, range, and median. Differences in the distribution of characteristics between the two groups were tested using chi-square tests. Whether traditional values, sex role attitudes, and marital satisfaction affected sexual health (views on marriage, pregnancy, childbirth, and domestic violence) were examined by using the Mann-Whitney U test, Kruskal-Wallis test, t-test, and Welch's method, after testing the normality of the data. The relationship between various characteristics and the actual and ideal number of children were using the Mann-Whitney U test and Kruskal-Wallis test. All statistical analyses were performed with IBM SPSS Version 24 for Windows. Statistical significance was expressed as *p*-values, with *p*-values <0.05 considered significant.

2.4. Ethical Considerations

This study was approved by the Ethical Committee of

Kobe University Graduate School of Health Sciences (Approval no. 601). The researchers explained the purpose of this study and the principles of ethics to the participants before they enrolled the survey. Informed consent was obtained from all participants included in the study.

3. Results

3.1. Participants' Characteristics

Table 1 shows participants' characteristics. Participants' mean age was 37.3 ± 4.5 years (range 23–45 years) and the median was 37 years. South Korean nationals accounted for 85.5% of participants, and 93.5% were 3rd generation *zainichi* Korean. In total, 69.8% of participants had *zainichi* husbands and 69.3% had more than two children. In addition, 63.2% of participants had experienced an ethnic school in Japan, and 35.1% lived in Koreatown.

Table 1. Characteristics of Participants (N=117).

Characteristics	Categories	n	(%)
Age	20s	6	(5.1)
	30s	73	(62.4)
	40s	38	(32.5)
Nationality	South Korea	100	(85.5)
	North Korea	8	(6.8)
	Japan	8	(6.8)
	Others	1	(0.9)
Generation (N=109)	2nd	4	(3.7)
	3rd	102	(93.5)
	4th	3	(2.8)
Partner's background (N=106)	Zainichi Korean	74	(69.8)
	South Korean	6	(5.7)
	Japanese	26	(24.5)
	One	36	(30.7)
Number of children	Two	58	(49.6)
	Three	18	(15.4)
	Four	5	(4.3)
	Regular employee	46	(39.3)
Occupational style	Non-regular employee	33	(28.2)
	Self employed	8	(6.8)
	Housewife	28	(23.9)
	Others	2	(1.8)
Household annual income (N=115)	Under 2 million yen	12	(10.5)
	2–4 million yen	33	(28.7)
	4–6 million yen	28	(24.3)
	6 million yen or more	42	(36.5)
The ratio of women's income (N=114)	0%–20%	52	(45.6)
	20%–40%	30	(26.3)
	40%–60%	19	(16.7)
	60%–80%	4	(3.5)
Experience of ethnic school in Japan (N=114)	80%–100%	9	(7.9)
	Yes	74	(63.2)
	No	43	(36.8)
Place of residence (N=112)	Kanto area	11	(9.8)
	Kansai area	92	(82.1)
	Others	9	(8.1)
Living in Koreatown or not (N=114)	Yes	40	(35.1)
	No	74	(64.9)

Note. Zainichi Korean= Person who was born and raised in Japan, but has roots in Korea

3.2. Traditional Values, Sex Role Attitudes, Marital Satisfaction, and Cognition of Community

3.2.1. Traditional Values

Table 2 shows participants' traditional values scores. Most (93.2%) participants agreed that "Ancestors should be respected," but only 14.7% agreed that "A wife should follow her husband" and 17.2% agreed that "Men should work outside and women should be in the homes." The mean traditional values score was 15.0 ± 3.5 (range: 7–25).

Table 2. Traditional Values (N=116).

Items	Responses	n	(%)
Ancestors should be respected	Strongly agree	38	(32.8)
	Agree some extent	70	(60.4)
	Disagree some extent	4	(3.4)
	Strongly disagree	4	(3.4)
The eldest son should look after his parents	Strongly agree	5	(4.3)
	Agree some extent	22	(19.0)
	Disagree some extent	61	(52.6)
	Strongly disagree	28	(24.1)
A wife should follow her husband	Strongly agree	1	(0.9)
	Agree some extent	16	(13.8)
	Disagree some extent	42	(36.2)
	Strongly disagree	57	(49.1)
A marriage that parents oppose should not occur	Strongly agree	6	(5.2)
	Agree some extent	33	(28.4)
	Disagree some extent	61	(52.6)
	Strongly disagree	16	(13.8)
You should follow a senior opinion	Strongly agree	5	(4.3)
	Agree some extent	39	(33.6)
	Disagree some extent	60	(51.7)
	Strongly disagree	12	(10.4)
A son is necessary to continue lineage	Strongly agree	1	(0.9)
	Agree some extent	19	(16.4)
	Disagree some extent	55	(47.4)
	Strongly disagree	41	(35.3)
Men should work outside and women should be in the home	Strongly agree	2	(1.7)
	Agree some extent	18	(15.5)
	Disagree some extent	41	(35.4)
	Strongly disagree	55	(47.4)

3.2.2. Sex Role Attitudes

For egalitarian sex role attitudes, the mean score was 57.6 ± 9.3 (range: 31–75), the median was 59, and the most frequent values were 48, 51, 56, and 59.

3.2.3. Marital Satisfaction

For marital satisfaction, the mean score was 18.3 ± 4.2 (range: 6–24), the median was 18, and the most frequent value was 18.

3.2.4. Cognition of Community

The results for the participants' cognition (trust, hope, and satisfaction) of the Japanese and *zainichi* Korean communities were as follows. In terms of trust, 56.3% of participants trusted ("Very much" and "Somewhat" responses) the Japanese community, whereas 75.2% reported trust of the *zainichi* community. We also found that 44.9% had hope ("Very much" and "Somewhat" responses) related to the Japanese community and 51.4% had hope related to the *zainichi* community. Finally, 52.2% reported satisfaction ("Very much" and "Somewhat" responses) with the Japanese

community and 58.8% reported satisfaction with the *zainichi* community. The following results compare differences in the cognition of the Japanese and *zainichi* communities by whether or not the participant lived in Koreatown. The percentage of participants who expressed hope for the *zainichi* community was significantly higher among those living in Koreatown than in those not living in Koreatown ($p=0.014$). The percentage of participants with trust in the *zainichi* community was also higher in the group living in Koreatown than in those not living in Koreatown ($p=0.054$).

3.3. Factors Related to Traditional Values, Sex Role Attitudes, and Marital Satisfaction

Traditional values scores were significantly higher in participants with experience of an ethnic school than in those without such experience ($p=0.011$), and in participants with *zainichi* husbands than in those with Japanese husbands ($p=0.033$). Scores for sex role attitudes were significantly lower in the group with experience of an ethnic school than in those without this experience ($p=0.002$). There was a significant difference in sex role attitude scores between participants who reported the ratio of the woman's income in the family as 0%–20% and 80%–100% ($p=0.015$). There was a correlation between marital satisfaction scores and percentage of housework burden ($p=0.001$).

3.4. Sexual Health

3.4.1. Views on Marriage, Pregnancy, and the Sex of Children

This questionnaire included items that investigated participants' hope and pressure for marriage, pregnancy, a boy, and a girl. We evaluated participants' hope and pressure for these items using a four-point Likert scale (ranging from "Not at all" to "Very much"). During the analyses, we classified participants into two groups: a low group responding "Not at all" or "Not so much" and a high group responding "Somewhat" or "Very much." Ninety-two point two percent of the participants hoped for marriage, and 94.8% hoped for pregnancy. The percentage of participants who hoped for a boy (44.7%) was lower than the percentage who hoped for a girl (68.1%). However, pressure for a boy (32.5%) was higher than pressure for a girl (16.4%).

3.4.2. Satisfaction with Decision-Making on Sexual Health Issues

The questionnaire included items that measured how satisfied the participants were with their decision-making regarding pregnancy, contraception, childbirth, abortion, marriage, and divorce. We evaluated participants' satisfaction on these items using a four-point Likert scale (ranging from "Not at all" to "Very much"), or no experience. During the analyses, we classified participants into two groups: a low group responding "Not at all" or "Not so much" and a high group responding "Somewhat" or "Very much." Those with

no experience were excluded. Most *zainichi* mothers reported being satisfied with their timing of pregnancy (96.3%) and childbirth (98.2%). Although almost 90% of the participants had no experience of abortion or divorce, the percentages of participants who were dissatisfied with decision-making regarding contraception, abortion, and divorce were 10.0%, 25.0%, and 33.3%, respectively.

3.4.3. Contraception Methods

Contraception methods ($n=96$, multiple answers) were condoms (42.7%), coitus interruptus (20.5%), no contraception (17.9%), rhythm method (6.8%), other methods (4.3%), and intrauterine contraceptive devices (3.5%). No participants used oral contraceptives (0.0%).

3.4.4. Actual and Ideal Number of Children

On average, participants had 1.93 ± 0.80 (range 1–4) children. Among *zainichi* mothers, the ideal number of children was 2.48 ± 0.63 (range 1–4). Reasons why *zainichi* mothers did not want another child (multiple answers) were age (53.2%), economic situation (41.6%), balance with work (31.2%), and strong burden of childrearing (29.9%).

3.4.5. Housework and Childrearing Burden

Many participants reported burdens for housework ($81.5\% \pm 17.2\%$; range 5–100) and childrearing ($78.7\% \pm 14.1\%$; range 50–100), with a majority (46.5%) reporting their housework burden was "Strong." In addition, 14.7% of participants reported a "Very strong" burden and 34.5% a "Not so strong" burden; only 4.3% reported they had no burden. In contrast, a majority of participants (42.2%) reported their childrearing burden was "Not so strong," with "Very strong," "Strong," and "Not at all" reported by 7.8%, 39.7%, and 10.3% of participants, respectively.

3.4.6. Anxiety About Childrearing and Support

A majority of participants (54.8%) reported "Strong" anxiety about childrearing and 4.4% reported "Very strong," anxiety, whereas 38.2% reported "Not so strong" anxiety and 2.6% reported no anxiety about childrearing. Most (94.7%) participants had childrearing support from their husband (66.2%), mother (27.4%), mother-in-law (4.8%), or another child (1.6%).

3.5. Factors Related to Sexual Health

Table 3 shows factors related to sexual health. Scores for traditional values were significantly higher in participants that had hoped for marriage, hoped for a boy, and experienced pressure for a boy than in those without ($p=0.007$, $p<0.001$, $p=0.002$, respectively). Scores for sex role attitudes were significantly lower in participants that had hoped for a boy than in those that had not hoped for a boy ($p=0.017$). Marital satisfaction scores were significantly lower in those that had experienced domestic violence than in the group without such experience.

Table 3. Relation between Traditional Values, Sex Role Attitudes, Marital Satisfaction and Sexual Health.

Items	Traditional values			Sex role attitudes			Marital satisfaction		
	n	Average rank	p-value	n	Mean \pm SD	p-value	n	Average rank	p-value
Hope for marriage	Yes 107	60.94	0.007**	105	57.21 \pm 9.35	0.146	7	41.14	0.311
	No 9	29.44		9	61.56 \pm 7.81		96	52.79	
Pressure for marriage	Yes 50	58.24	0.942	49	58.57 \pm 10.10	0.311	46	52.07	0.984
	No 66	58.70		65	56.78 \pm 8.61		57	51.95	
Hope for pregnancy	Yes 110	57.95	0.444	108	57.81 \pm 9.31	0.210	99	52.40	0.487
	No 6	68.67		6	53.00 \pm 8.05		4	42.00	
Pressure for pregnancy	Yes 56	58.60	0.976	54	57.98 \pm 9.67	0.642	51	54.30	0.430
	No 60	58.41		60	57.16 \pm 8.98		52	49.74	
Hope for a boy	Yes 54	70.17	<0.001***	53	55.34 \pm 10.18	0.017**	49	53.72	0.570
	No 62	48.34		61	59.48 \pm 8.02		54	50.44	
Pressure for a boy	Yes 39	72.31	0.002**	38	56.79 \pm 9.17	0.537	37	49.38	0.497
	No 77	51.51		76	57.93 \pm 9.17		66	53.47	
Hope for a girl	Yes 80	60.73	0.284	79	57.00 \pm 9.68	0.315	73	51.72	0.880
	No 36	53.54		35	58.80 \pm 8.32		30	53.54	
Pressure for a girl	Yes 20	71.65	0.053	20	57.20 \pm 11.17	0.853	19	51.26	0.904
	No 96	55.76		94	57.63 \pm 8.90		84	52.17	
Respect for contraception preference	Yes 81	45.22	0.421	80	58.19 \pm 9.35	0.926	73	42.83	0.003**
	No 10	52.30		9	56.89 \pm 8.67		7	16.21	
DV1; To be kicked or beaten	Yes 10	52.00	0.520	10	56.80 \pm 8.42	0.790	7	23.36	0.007**
	No 106	59.11		104	57.62 \pm 9.40		96	54.09	
DV2; Important things are broken on purpose	Yes 5	51.30	0.623	5	60.80 \pm 7.00	0.426	4	31.13	0.147
	No 111	58.82		109	57.40 \pm 9.37		99	52.84	
DV3; Ignored	Yes 9	54.67	0.720	9	54.56 \pm 11.95	0.315	8	40.56	0.251
	No 107	58.82		105	57.81 \pm 9.04		95	52.96	
DV4; To rant	Yes 10	54.95	0.725	10	59.40 \pm 7.97	0.512	10	24.05	0.002**
	No 106	58.83		104	57.38 \pm 9.41		93	55.01	
DV5; Mail or phone checked	Yes 12	51.75	0.490	12	62.42 \pm 7.98	0.056	11	28.27	0.005**
	No 103	58.73		101	56.99 \pm 9.33		91	54.31	
DV6; The relationship is restricted	Yes 12	60.54	0.823	12	57.92 \pm 9.77	0.887	9	31.28	0.027*
	No 104	58.26		102	57.51 \pm 9.27		94	53.98	
DV7; Do not provide living expenses	Yes 10	56.75	0.863	10	57.70 \pm 9.56	0.958	5	6.80	<0.001***
	No 106	58.67		104	57.54 \pm 9.30		98	54.31	
DV8; Forced to have sex	Yes 12	44.96	0.138	12	59.42 \pm 7.44	0.465	9	30.72	0.023*
	No 104	60.06		102	57.33 \pm 9.48		94	54.04	

Statistical analysis: Mann–Whitney U test and Kruskal–Wallis test

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The actual number of children among participants who lived in Koreatown was significantly higher than in those that did not live in Koreatown ($p=0.014$). The actual number of children was significantly lower among participants that were regular employees than those who were non-regular employees

($p=0.028$), self-employed ($p=0.023$), and housewives ($p=0.043$). Household annual income, housework and childrearing burdens, anxiety about childrearing, and actual number of children were not correlated (Tables 4 and 5).

Table 4. Factors Related to the Actual Number of Children.

Items	Responses	Number of children			
		n	Average \pm SD	Average rank	p-value
Living in Koreatown or not (N=114)	Yes	40	2.15 \pm 0.74	67.03	0.014*
	No	74	1.80 \pm 0.78	52.35	
Occupational style (N=115)	Regular employee	46	1.70 \pm 0.79	46.90	0.029*
	Non-regular employee	33	2.09 \pm 0.84	62.70	
	Self employed	8	2.13 \pm 0.64	73.43	
	Housewife	28	2.07 \pm 0.77	61.11	
Household annual income (N=115)	Under 2 million yen	12	1.92 \pm 0.79	60.68	0.540
	2–4 million yen	33	2.03 \pm 0.81	61.00	
	4–6 million yen	28	1.79 \pm 0.79	50.33	
	6 million yen or more	42	1.95 \pm 0.80	55.82	
Housework burden (N=116)	very strong	71	2.00 \pm 0.78	61.10	0.065
	not strong	45	1.82 \pm 0.83	50.33	
Childrearing burden (N=116)	very strong	55	1.95 \pm 0.78	58.81	0.542
	not strong	61	1.92 \pm 0.82	55.35	
Anxiety about childrearing (N=114)	very strong	68	1.94 \pm 0.75	56.59	0.969
	not strong	46	1.91 \pm 0.88	56.37	

Statistical analysis: Mann–Whitney U test, Kruskal–Wallis test

* $p < 0.05$

Table 5. Relation between Occupational Style and the Actual Number of Children.

Occupational style	Actual number of children			
	n	Average \pm SD	Average rank	p-value
Regular employee	46	1.70 \pm 0.79	35.14	0.028*
Non-regular employee	33	2.09 \pm 0.84	45.77	
Regular employee	46	1.70 \pm 0.79	25.28	0.023*
Self-employed	8	2.13 \pm 0.64	38.29	
Regular employee	46	1.70 \pm 0.79	33.48	0.043*
Housewife	28	2.07 \pm 0.77	43.00	
Non-regular employee	33	2.09 \pm 0.84	19.42	0.461
Self-employed	8	2.13 \pm 0.64	22.64	
Non-regular employee	33	2.09 \pm 0.84	30.52	0.785
Housewife	28	2.07 \pm 0.77	29.39	
Self-employed	8	2.13 \pm 0.64	20.50	0.311
Housewife	28	2.07 \pm 0.77	16.72	
Statistical analysis: Mann-Whitney U test				* $p < 0.05$

4. Discussion

This study on the current status of sexual health among *zainichi* Korean mothers demonstrated that women's decisions on pregnancy and childbirth were generally respected, despite difficulties regarding contraception, abortion, and divorce decisions (e.g., appropriate contraception methods were not selected); the ideal number of children not actually being achieved; and large housework and childrearing burdens for women. Furthermore, traditional values, gender role attitudes, marital satisfaction, and whether participants lived in Koreatown influenced women's sexual health.

The *zainichi* Korean population is experiencing population aging and declining birthrates similar to the wider Japanese population [1, 2]. More than 90% of participants in this study were 3rd generation *zainichi* Korean, which is consistent with the fact that many of the wider *zainichi* Korean population are in this generation. In addition, 63.2% had experienced attending an ethnic school. In the group with ethnic school experience, traditional value scores were significantly higher and sex role attitude scores significantly lower (more traditional), and significantly more women reported their partner had the same *zainichi* Korean background. Traditional Confucian values and ethnic consciousness among *zainichi* Koreans are likely to become strong after ethnic school experience at school age.

This study found that participants' decision-making was not respected in terms of reproductive health areas such as contraception, abortion, and divorce. Condoms and coitus interruptus were the most frequently selected contraceptive methods, whereas few women reporting being able to use intrauterine contraceptive devices and none reporting being able to use oral contraceptives if they wished. Worldwide, the use of intrauterine contraceptive devices and oral contraceptives is greater than the use of condoms [12, 13]. Condoms are a male-based uncertain contraceptive method that may lead to unwanted pregnancy [14, 15]. Intrauterine and oral contraceptives are effective contraception methods that also have other benefits, and can be expected to

contribute to improving women's sexual health [16-18]. Therefore, it may be necessary for midwives and nurses to support *zainichi* mothers' family planning and to provide them with accurate information.

The current number of children among the participants was as small as the average number of completed births among Japanese couples and South Korean couples [19, 20]. Many participants had fewer than the ideal number of children, and were not satisfied with their current family size. The main reasons why *zainichi* mothers did not desire another child were age, economic situation, balance with work, and strong childrearing burden. *Zainichi* Korean society has experienced rising age at first marriage and first birth, as have Japanese and South Korean societies [21, 22]. Even if mothers desire to have more children, their age may mean they cannot become pregnant and may also make it difficult to care for their child. Therefore, it is necessary for midwives and nurses to support family planning and premarital counseling among *zainichi* women from a young age to help them achieve their ideal number of children.

Furthermore, regular employees had significantly fewer children than those in other occupational styles. Kobayashi et al. have also stated that regular employees are more burdens the housework and childrearing [23]. This study indicated that the percentages of the housework and childrearing burdens taken up by *zainichi* Korean mothers (81.5% and 78.7%, respectively) were higher than those of women in Japan and South Korea [23, 24]. Unconfident Japanese mothers were less attached to their babies and felt their husbands' help was limited [4]. Therefore, it may be important to hold workshops about housework and childrearing support for fathers who have strong consciousness of gender norms.

In this study, hope for marriage, hope for a boy, and pressure for a boy were significantly higher among participants with strong traditional values, and hope for a boy was significantly higher in those with traditional sex role attitudes. Andrea et al. reported that while the reasons for son preference differ across cultures, it is rooted in the organization of society along patrilineal lines, and implementation of that preference depends in part on the strength and rigidity of patrilineal practices [25]. Traditionally, South Korean parents show a strong preference for a son for reasons such as old-age support, continuing the family line, and the practice of ancestor worship. However, son preference has declined significantly in recent year [25]. Compared to it, hopes and pressures for a boy remained strong among *zainichi* Koreans with strong traditional values. Furthermore, it became clear that pressure for a boy from people around participants was stronger than their own hope for a boy, which may also affect *zainichi* mothers' mental health.

Women in the group with low marital satisfaction reported their wishes regarding contraception were not respected. According to previous studies, even though women have wishes regarding contraception, contraceptive behavior is

influenced by their relationship with their partner [14, 26]. The relationship with a partner is particularly important for Japanese, South Koreans, and *zainichi* Koreans who actively use male-based contraceptive methods. Domestic violence was also a strong factor that lowered marital relationship satisfaction for couples.

In this study, the actual number of children among participants who lived in Koreatown was significantly higher than in those not living in Koreatown. In the group who lived in Koreatown, hope for the *zainichi* Korean community was significantly higher, and trust for the *zainichi* Korean community also tended to be higher, suggesting that childrearing support may be possible in the *zainichi* Korean community. It is difficult to maintain work-life balance in Japan and South Korea compared with the OECD average. *Zainichi* Korean mothers have also higher housework and childrearing responsibilities. Mothers who have young children are particularly burdened and need support [8]. However, community relationships are becoming weaker in Japan because of progression toward nuclear families. Moreover, working parents and parents' increasing age may mean that mothers find it difficult to obtain support from their own parents, from whom they previously expected the most childcare support. *Zainichi* Koreans have lived in Japan for many generations and formed communities, and resources for childcare support may exist in the community. As *zainichi* Korean mothers expressed hope and trust in the *zainichi* Korean community, it may be important for midwives and nurses to consider maintaining and managing people, places, and other elements of the *zainichi* Korean community that are resources for childcare support for these mothers. Daily stress may also be much higher among childrearing mothers with a high housework burden [4, 23]. Therefore, having reliable counselors and childcare support in the community may improve mothers' mental health and may also prevent child abuse.

There are two major limitations to this study: the small sample size and the bias of geographical area. However, this is the first report to demonstrate the current status of sexual health among Korean mothers residing in Japan. Therefore, additional research is needed to confirm our results regarding the sexual health in *zainichi* mothers.

5. Conclusion

This study shows that traditional values, gender role attitudes, marital satisfaction and community influence *zainichi* mothers' sexual health including contraception, abortion, and divorce decision-making, and housework and childrearing burdens (perceived as a strong burden). Therefore, it may be important for midwives and nurses to provide accurate information about sexuality to *zainichi* mothers, to hold workshops about housework and child rearing support for fathers who have a strong consciousness of gender norms, and to facilitate childcare support resources in *zainichi* Korean communities.

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Conflict of Interest

All authors declare that they have no conflict of interest.

References

- [1] Statistics Japan. Statistics on registration of foreign residents. Ministry of Justice; 2017 [cited 2018 Jan 4]. Available from: https://www.e-stat.go.jp/stat-search/files?page=1&layout=data_list&lid=000001196143.
- [2] Visocnik N. The Role of Religion in the Life of *Zainichi* Koreans in Japan. *Asian Studies*. 2016;4(1):229-243.
- [3] Tsubaki C, Machiura M, Saho M. The conditions of sex education, sex knowledge, traditional values, and the relations to sex behaviors among Korean college students living in Japan. *Maternal Health*. 2012;52(4):522-528.
- [4] Goto A, Vinh NQ, Tu VT, Phuc TH, Minh PN, Yabe J, et al. Maternal Confidence in Child Rearing: Comparing Data from Short-term Prospective Surveys Among Japanese and Vietnamese Mothers. *Matern Child Health J*. 2008;12(5): 613-619.
- [5] Nishigaki K, Kanamori Y, Ikeda M, Sugiyama M, Minowa H, Kamibeppu K. Changes in Mothers' psychosocial of technology-dependent children and adolescents at home in Japan: Acknowledgement of children's autonomy. *Asian nursing research*. 2016; 10: 100-105.
- [6] Inoue M, Nishikitani M, Tsurugano S. Female non-regular workers in Japan: their current status and health. *Industrial Health*. 2016; 54: 521-527.
- [7] Koh C, Matsuo H. Current situations and challenges concerning sexual health among unmarried couples composed of a mix of Japanese, South Korean nationals, and ethnic Koreans born in Japan (*zainichi*): a qualitative study. *Health*. 2017;9(1):14-24.
- [8] Jang SJ, Zippay A, Park R. Family leave for employed women: Interaction effects of gender discrimination and household responsibilities in South Korea. *Intern Social Work*. 2016;59(1):99-114.
- [9] Yoshino R. A time to trust in East Asia: a behaviormetric study on the sense of trust in East Asia Value Survey. *Behavioral metrology*. 2005;32(2):147-160.
- [10] Suzuki A. Construction of a short-form of the Scale of Egalitarian Sex Role Attitudes (SESRA-S). *Jpn J Psychol*. 1994;65(1):34-41.
- [11] Moroi K. Perception of equity in sharing of domestic labor. *Jpn J Fam Psychol*. 1996;10(1):15-30.
- [12] Joshi R, Khadilkar S, Patel M. Global trends in use of long-acting reversible and permanent methods of contraception: Seeking a balance. *Intern J Gyne and Obs*. 2015;131(1): 60-63.

- [13] UN, Department of Economic and Social affairs. World contraceptive patterns 2015. United Nations; 2015 [cited 2017 Oct 03]. Available from: <http://www.un.org/en/development/desa/population/publications/dataset/contraception/wcu2015.shtml>.
- [14] Kojo T, Ae R, Tsuboi S, Nakamura Y, Kitamura K. Differentials in variables associated with past history of artificial abortion and current contraception by age: Results of a randomized national survey in Japan. *J Obstet Gynaecol Re*. 2017;43(3):516–522.
- [15] Inoue K, Kelly M, Bateson D, Rutherford A, Stewart M, Richters J. Contraceptive choices and sexual health of Japanese women living in Australia: A brief report from a qualitative study. *Aust Fam Physician*. 2016;45 (7):523–527.
- [16] JFPA. The 7th survey report on life and consciousness of men and women. Japan Family Planning Association; 2015 [cited 2018 Jan 4]. Available from: <http://www.jfpa.or.jp/paper/main/000047.html>.
- [17] Buhling KJ, Zite NB, Lotke P, Black K. Worldwide use of intrauterine contraception: a review. *Contraception*. 2014; 89(3):162–173.
- [18] Bateson D, Kang S, Paterson H, Singh K. A review of intrauterine contraception in the Asia-Pacific region. *Contraception*. 2017; 95(1):40–49.
- [19] NIPSSR. Marriage and childbirth in Japan today, The fifteenth Japanese National Fertility Survey 2015. National Institute of Population and Social Security Research; 2017 [cited 2017 Oct 03]. Available from: http://www.ipss.go.jp/ps-doukou/j/doukou15/NFS15_reportALL.pdf.
- [20] MOGEF. Women's lives by statistics 2017. Ministry of Gender Equality and Family; 2017 [cited 2018 Jan 4]. Available from: http://www.mogef.go.kr/eng/pr/eng_pr_s101d.do?mid=eng001.
- [21] Kim H. Women's living in statistics 2017. Ministry of Gender Equality and Family; 2017 [cited 2017 Dec 1]. Available from: <http://www.mogef.go.kr/kor/skin/doc.html?fn=aa7bf854464b436093cdb31979b3af2f.hwp&rs=/rsfiles/201802/>.
- [22] Cabinet Office Japan. White paper for measures against declining birthrate 2017. Cabinet Office, Government of Japan; 2017 [cited 2017 Dec 1]. Available from: http://www8.cao.go.jp/shoushi/shoushika/whitepaper/measure/s/w-2017/29webhonpen/html/b1_s1-1-2.html.
- [23] Kobayashi M, Kobayashi M, Okumura T, Usui E. Sharing housework between husbands and wives: how to improve marital satisfaction for working wives in Japan. *IZA J Labor Policy*. 2016; 5(18): 1–15.
- [24] Daiwa House Industry. A survey on dual income couples' consciousness about "housework". Daiwa House Industry; 2017 [cited 2017 Oct 3]. Available from: http://www.daiwahouse.co.jp/column/lifestyle/dual_income/.
- [25] Andrea DB, Valeria H. Patrilineality, Son Preference, and Sex Selection in South Korea and Vietnam. *Population and Development Review*. 2017;43(1):1–29.
- [26] Masters NT, Morrison DM, Querna K, Casey EA, Beadnell B. Correlates of Young Men's Intention to Discuss Birth Control with Female Partners. *Perspect Sex Reprod Health*. 2017;49(1): 37–43.