A Study of Gender Equality Awareness and Childbirth Will to College Students

Miok Kim¹⁾

Abstract

The purpose of this study was to investigate gender equality and childbirth will to college students, and to identify the relationship between the two variables and factors affecting childbirth will. For this study, a survey was conducted on 100 male and female college students attending university in Busan from March 29 to April 5, 2019. Collected data were analyzed by frequency and percentage, mean and standard deviation, independent T-test, one-way ANOVA, and Pearson correlation analysis. As a result of the study, the average gender equality and willingness to give birth to college students was 271 points and 2.98 points respectively. In the difference according to the general characteristics, the patriarchal male-centered values of female students were higher than those of male students, and the intention to give birth was higher. As a result of the correlation analysis of the two variables, the childbirth will showed a statistically significant correlation with patriarchal family view ($r=-.227$, $p=.050$), male-centered social view ($r=.261$, $p=.009$), gender-equal society view ($r=-.227$, $p=.023$). The results of this study can be used as a resource for policy, public relations, and education contents to overcome the low birth rate problem by examining the thoughts of college students on childbirth as future parents.

Keywords: College Students, Gender Equality, Childbirth Will, Low Birth Rate

1. Introduction

Recently, awareness of gender equality and low birth rate have emerged as social issues. Gender equality does not have sexist consciousness about the abilities, attributes and roles of women and men, free from prejudice against a particular sex, and does not endorse or adopt discriminatory acts against women's rights and human rights. It is also an attitude that recognizes the need for institutions and policies to correct gender discrimination in society, not only [1]. According to the World Economic Forum, In 2011, Korea's Gender Equality Index ranks 107th out of 135 countries in the world, and this low gender equality consciousness appears in male and female college students. It has been reported to recognize that there are many discriminations. It has been reported that female students experience more negative emotions than male students and recognize that there is more discrimination due to the disadvantages of being a woman in everyday life.

Received(May 13, 2020), Review Result(1st: June 30, 2020, 2nd: August 19, 2020), Accepted(September 25, 2020)

1) (Professor) 48520 Dept. Nursing, TongMyong Univ., Sinseon-ro, Nam-gu, Pusan, Korea
email: citycoco@hanmail.net

College students belong to the later stages of adolescence, and it is time to prepare for choosing a spouse, establishing a mature human relationship through intimacy and communication[2][3]. Without understanding and accepting gender differences, it is difficult to form such intimacy and often suffer from communication conflicts[4]. In order to understand the problem of gender differences, it is necessary to respect gender as it is and have gender equality consciousness that both men and women have the same potential and should be treated equally. The cultivation of gender equality awareness is one of the important developmental tasks for college students, and it is most important to form the right values and attitudes toward gender equality because college students are preparing to take a role in the home and society.

Korea has a total fertility rate of 1.2, which is the world's lowest level and a serious problem for our society. It is difficult to bring about the attitude and behavioral change of the public agenda for childbirth through short-term public relations or the development of existing policies to overcome the low birth rate phenomenon[5]. In order to change the public awareness of the low birth rate, an essential and integrated approach to the birth problem is needed. Women of childbearing age need to understand the willingness to give birth, and future fertility youths must share social awareness[6][7]. In general, people with high awareness of gender equality have a high self-concept and positive interpersonal relationships, so they tend to cope reasonably and flexibly in a problem situation[8]. Studies must be conducted on childbirth will because family members can gain respect for human rights and mental stability through marriage. Among previous studies on gender equality consciousness and willingness to give birth, the study of Gap-sun Kim and Hyo-jeong Lee[9] was the only study that investigated the effects of gender equality consciousness on the willingness to give birth as a mediating effect in college students. In relation to this, most of the cases are aimed at unmarried and married women, and the thesis specifically targeting college students is incomplete.

Therefore, the purpose of this study was to examine the gender equality consciousness of college students in the provisional fertility period in relation to the low fertility rate, and to find out how these specific aspects of gender equality consciousness correlate with the will of childbirth.

2. Method

2.1 Subject and Data Collection

The subjects of this study were male and female college students attending a university located

in Busan, who wanted to participate voluntarily after explaining the purpose and method of the study. In the lecture room for data collection, After signing consent, students who wished to participate filled out a structured questionnaire for data collection. The data collection period was from March 29 to April 5, 2019, and a total of 100 copies were used for the final analysis, excluding 8 copies with unsuccessful responses among a total of 108 copies.

2.2 Instruments

2.2.1 Gender Equality Awareness

The tool of Jang Yu-hwa[10], which was developed by revising and supplementing the Korean male gender equality test (KGES-A) for youth developed by the Korea Women's Development Institute, was used. The tool consists of 20 questions, 12 about gender equality consciousness at home and 8 questions about gender equality consciousness in the society. For the measurement, the 5-point Likert scale was used from 1 point meaning "Not at all" to 5 points meaning "Always." In the study of Jang Yu-hwa, Cronbach's α was .804 for the patriarchal family view, .768 for the gender equality family view, .695 for the male-centered society view, and .813 for the gender equality view. Cronbach's α for the entire tool was .755. In this study, Cronbach's α was .878 for the patriarchal family view, .863 for the gender equality family view, .752 for the male-centered society view, and .813 for the gender equality view.

2.2.2 Childbirth Will

Lee Se-young's tool was used to measure the childbirth will [11]. This tool was produced with reference to the questionnaire that was used in several studies-National Institute of Health and Social Affairs, national marriage and childbirth trend survey, a study on the direction childbirth incentive policy[12], a study on the acceptance of childbirth incentive policy[13], a study on factors affecting childbirth will [14]. The tool consists of 16 questions on the personal aspect, three questions on family, four questions on economic terms, and three questions on policy terms. Questions 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 were reversed. Cronbach's α , a measure of tool reliability, was .801 in the study of Lee Se-Young and .719 in this study.

2.3 Data Analysis

The collected data were analyzed using SPSS WIN/PC 25.0 as follows.

(1) The general characteristics of the subjects and characteristics related to the childbirth will were analyzed by descriptive statistics.

(2) The degree of gender equality awareness and the childbirth will were analyzed by means and standard deviation.

(3) The difference in the gender equality awareness and the childbirth will according to the general and related childbirth characteristics of the subjects were analyzed by independent t-test, one-way ANOVA, and post-test by Scheffé test.

(4) The correlation between gender equality awareness and childbirth will was analyzed by Pearson's correlation.

3. Results

3.1 General Characteristics of Subjects

The general characteristics of the study subjects are shown in [Table 1]. The age of the subjects was 49% over 20 years old, 51% under 20 years old, and 50 men (50%) each had the same sex ratio, and first graders (39%) were the most common, followed by second graders (26%) and third graders (6%). The second child was the most common at 44%, the first 33%, and the only child 13%. In terms of parents' economic activities, 67% were dual-income families, 26% relied on the father's income, 4% relied on the mother's income, and 3% of parents did not engage in economic activities. Religion was 61% non-religious, 16% Buddhist, 12% Catholic, and 11% Christian.

[Table 1] General Characteristics

Characteristics	Categories	N (%)	%
Age	> 20	51	51
	≤ 20	49	49
Sex	Male	50	50
	Female	50	50
Grade	1st	39	39
	2nd	26	26
	3rd	6	6
	4th	29	29
Order of child	Only child	13	13
	1st child	33	33
	2nd child	44	44
	3rd child	8	8
	4th child and on	2	2
Economic activity of	Dual-income	67	67

parents	Father	26	26
	Mother	4	4
	None	3	3
Religion	Christianity	11	11
	Catholic	12	12
	Buddhism	16	16
	No religion	61	61

3.2 General Equality Awareness and Childbirth Will

The average score was 2.71 points for gender equality awareness of the subjects. In terms of sub-areas, the average score was 3.83 points for the patriarchal family view, 1.85 points for the gender equality family view, 3.90 points for the male-centered social view, and 1.59 points for the gender equality social view. The gender equality value score was relatively low compared to the average score of male-centered patriarchal values. The average score of the childbirth will was 2.98 points, and the economic aspect was the highest at 3.49 points among sub-areas, followed by 2.98 points of personal aspect, 2.96 points of family aspect, and 2.33 points of policy aspect [Table 2].

[Table 2] Mean of Gender Equality and Childbirth Will

Variables	M±SD	Max	Min	Range
Gender equality	2.71 ± .32	1.60	3.40	1 ~ 5
Patriarchal family view	3.83 ± .88	1.60	5.00	1 ~ 5
Gender equality family view	1.85 ± .64	1.00	4.57	1 ~ 5
Male-centered social view	3.90 ± .78	2.00	5.00	1 ~ 5
Gender equality social view	1.59 ± .65	1.00	4.00	1 ~ 5
Childbirth will	2.98 ± .46	1.88	4.19	1 ~ 5
Personal aspect	2.98 ± .55	1.67	4.33	1 ~ 5
Family aspect	2.96 ± .77	1.00	5.00	1 ~ 5
Economic aspect	3.49 ± .78	1.00	5.00	1 ~ 5
Policy aspect	2.33 ± .60	1.00	4.00	1 ~ 5

3.3 Difference in Gender Equality Awareness According to General and Childbirth Related Characteristics

By examining the differences in gender equality awareness according to general characteristics, there was statistical significance in the gender ($t=-4.839$, $p<.001$), gender equality family view

($t=2.775$, $p=.007$), and male-centered social view ($t=-5.424$), $p<.001$), and gender equality social view ($t=3.266$, $p=.002$), showing statistically significant differences in all sub-areas. In other words, female students have higher average scores than male students for patriarchal family view and male-centered social view, and lower scores than males in gender equality family view and social view. In addition, the order of siblings showed a significant difference in the area of gender equality social view ($F=2.684$, $p=.036$), indicating that the score of gender equality social view in the 4th+child group was higher in other groups [Table 3].

[Table 3] Difference of Gender Equality according the General Characteristics

Characteristics	Categories	Patriarchal family view		Gender equality family view		Male-centered social view		Gender equality social view	
		M±SD	For t(p)	M±SD	For t(p)	M±SD	For t(p)	M±SD	For t(p)
Age	> 20	3.90±.86	782	1.74±.55	-1.772	4.00±.72	1.372	1.57±.68	-.254
	≤ 20	3.76±.90	(.436)	1.97±.70	(.079)	3.78±.83	(.173)	1.60±.62	(.800)
Sex	Male	3.45±.90	-4.839	2.02±.73	2.775	3.52±.74	-5.424	1.79±.65	3.266
	Female	4.22±.66	(<.001)	1.68±.49	(.007)	4.27±.63	(<.001)	1.38±.60	(.002)
Grade	1st	3.95±.83		1.78±.56		4.05±.64		1.49±.54	
	2nd	3.77±.95	.588	1.96±.55	1.803	3.91±.72	1.780	1.78±.77	1.458
	3rd	3.50±.96	(.624)	2.33±.98	(.152)	3.33±.88	(.156)	1.79±.55	(.231)
	4th	3.80±.88		1.75±.65		3.78±.93		1.50±.69	
Order of child	Only child ^a	3.63±.94		2.20±.61		3.71±.92		1.75±.77	
	1st child ^b	3.69±.79		1.76±.48		3.81±.75		1.65±.70	2.684
	2nd child ^c	3.96±.92	1.270	1.84±.76	1.900	4.00±.77	1.346	1.49±.56	(.036)
	3rd child ^d	4.22±.87	(.287)	1.57±.35	(.117)	4.15±.53	(.259)	1.28±.47	a,b,c,d<e
	4th child and on ^e	3.20±.28		2.35±.10		3.00±.35		2.75±.00	
Economic activity of parents	Dual-income	3.79±.87		1.88±.69		3.83±.77		1.65±.69	
	Father	3.94±.86	.299	1.79±.55	.664	4.06±.79	.756	1.45±.59	1.598
	Mother	3.65±.99	(.826)	2.03±.24	(.576)	3.62±.43	(.522)	1.81±.42	(.195)
	None	4.06±1.44		1.42±.37		4.08±1.37		1.00±0.00	
Religion	Christianity	4.07±.93		1.81±.85		4.09±.89		1.34±.77	
	Catholic	3.56±.86	.761	1.95±.38	.192	3.70±.74	.483	1.64±.58	.165
	Buddhism	3.72±.76	(.519)	1.82±.65	(.902)	3.95±.67	(.695)	1.65±.56	(.607)
	No religion	3.87±.90		1.85±.64		3.88±.80		1.60±.67	

3.4 Difference in Childbirth Will According to General Characteristics

Looking at the differences in the childbirth will according to the general characteristics, there

was a statistically significant difference in gender. Female students had a higher score on childbirth will than male students ($t=-2.478$, $p=.015$). There was a significant difference in the childbirth will score in the policy aspect sub-area ($F=2.762$, $p=.046$). As a result of the post-hoc test, 3rd graders showed a lower score on birth will than other grades. In addition, there was a significant difference in the total childbirth will score according to the economic activities of parents ($F=2.718$, $p=.049$). As a result of the post-test, the group without economic activities showed significantly lower scores than other groups [Table 4].

[Table 4] Difference in Childbirth Will According General Characteristics

Characteristics	Categories	Childbirth will		Personal aspect		Family aspect		Economic aspect		Policy aspect	
		M±SD	For t(p)	M±SD	For t(p)	M±SD	For t(p)	M±SD	For t(p)	M±SD	For t(p)
Age	> 20	3.00±.44	.559	2.98±.56	.007	2.98±.80	.354(.724)	3.53±.79	.574	2.37±.59	.820
	≤ 20	2.95±.48	(.558)	2.97±.57	(.994)	2.93±.74		3.44±.78	(.567)	2.27±.62	(.414)
Sex	Male	2.87±.40	-2.478	2.82±.55	-2.941	2.85±.71	-1.386	3.36±.63	-1.605	2.32±.66	-.054
	Female	3.09±.49	(.015)	3.14±.49	(.004)	3.06±.61	(.169)	3.61±.74	(.112)	2.33±.64	(.957)
Grade	1st ^a	2.97±.46		2.98±.46		2.84±.46		3.44±.46		2.44±.46	
	2nd ^b	3.00±.48	.256	2.91±.48	.741	3.06±.48	.496	3.49±.48	.098	2.46±.48	2.762
	3rd ^c	2.83±.56	(.857)	2.75±.56	(.530)	2.94±.56	(.686)	3.54±.56	(.961)	1.94±.56	(.046)
	4th ^d	3.00±.61		3.08±.61		3.02±.61		3.54±.61		2.13±.61	a,b,d>c
Order of child	Only child	2.99±.77		2.98±.37		2.84±.31		3.59±.77		2.33±.46	
	1st child	2.93±.56		2.95±.38		2.94±.34		3.44±.56		2.18±.48	
	2nd child	2.99±.69	.204	2.95±.53	.295	2.97±.43	.131	3.52±.69	.319	2.38±.56	1.082
	3rd child	3.08±.77	(.935)	3.18±.38	(.880)	3.04±.37	(.971)	3.40±.77	(.865)	2.50±.61	(.370)
Economic activity of parents	4th child and on	3.00±.79		3.00±.86		3.16±.43		3.00±.79		2.83±.56	
	Dual-income ^a	2.99±.59	2.718	2.99±.40	2.563	2.97±.34	1.345	3.47±.59	1.521	2.35±.50	.344
	Father ^b	2.93±.50	(.049)	2.94±.47	(.059)	2.92±.39	(.264)	3.41±.50	(.214)	2.26±.38	(.793)
	Mother ^c	2.68±.78	a,b,c<d	2.45±.28		2.50±.51		3.56±.78		2.16±.50	
Religion	None ^d	3.62		3.61±.09		3.66±.33		4.41±.51		2.55	
	Christianity	2.82±.46	1.338	2.77±.46		2.66±.46		3.43±.46		2.27±.46	
	Catholic	2.83±.48	(.267)	2.90±.48	.894	2.80±.48	1.773	3.37±.48	.141	2.02±.48	1.337
	Buddhism	2.93±.56		2.92±.56	(.447)	2.75±.56	(.158)	3.54±.56	(.935)	2.31±.56	(.267)
Religion	No religion	3.05±.61		3.04±.61		3.09±.61		3.50±.61		2.40±.61	

3.4 Difference in Childbirth Will According to Childbirth Related Characteristics

[Table 5] shows the results of the correlation analysis between gender equality awareness and

childbirth will. It showed a statistically significant correlation with patriarchal family view ($r=-.227$, $p=.050$), male-centered social view ($r=.261$, $p=.009$), gender-equal society view ($r=-.227$, $p=.023$). The patriarchal family view and the male-centered social view showed a positive correlation with the childbirth will, indicating that the higher the score of the patriarchal family view and the male-centered social view, the stronger the childbirth will. However, the gender equality social view was negatively correlated with childbirth will, so the higher the score, the weaker the will of childbirth. Among sub-areas of childbirth will, the personal aspect had a positive correlation with the patriarchal home view ($r=.382$, $p=.001$) and the male-centered social view ($r=.354$, $p<.001$), and had a negative correlation with the gender equality family view ($r=-.261$, $p=.009$) and gender equality social view ($r=.238$, $p=.017$). The economic aspect and gender equality social view showed a negative correlation ($r=-.280$, $p=.005$), policy aspect and gender equality awareness showed a positive correlation ($r=.228$, $p=.022$).

[Table 5] Correlation Between Gender Equality and Childbirth Will

Variables	Gender equality	Patriarchal family view	Gender-equal family view	Male-centered social view	Gender-equal social view
	r(p)	r(P)	r(P)	r(P)	r(P)
Childbirth will	.011(.913)	.190(.050)	-.184(.067)	.261(.009)	-.227(.023)
Personal aspect	.078(.439)	.328(.001)	-.261(.009)	.354(<.001)	-.238(.017)
Family aspect	-.088(.386)	.012(.905)	-.125(.216)	.055(.584)	-.100(.320)
Economic aspect	-.127(.209)	.051(.616)	-.120(.234)	.122(.225)	-.280(.005)
Policy aspect	.228(.022)	.062(.543)	.103(.308)	.121(.231)	.127(.209)

4. Discussion

The average score of the gender equality awareness of the subjects was 3.83 points for the patriarchal family view, 1.85 points for the gender equality family view, 3.90 points for the male-centered social view, and 1.59 points for the gender equality social view. Compared to the research results of Jang Yu-hwa[10] on high school students using the same tools, the average scores were 3.77, 1.87, 3.45, and 1.65. The patriarchal male-centered value score was high and the gender equality value score was low, similar to this study. The patriarchal male-centered values of college students, the subjects of this study, were higher than the values of high school students. In the difference in gender equality awareness according to general characteristics, female students showed higher scores on the patriarchal family view and male-centered social view than male students, and the perception of gender equality values

were low. These results were consistent with the findings of Jang Yu-hwa[10]. Female students are not only strong in their critical perception of the traditional male-centered patriarchal home view, but also have a stronger desire for gender equality values than their male counterparts. Female students showed lower scores on gender equality of family and social views than male students, supporting the argument of Kim Gap-soon and Kim Jung-hwa[15] that girls are still trapped in a gender-biased framework of the conservative culture in Korea. On the contrary, the result of Kang Jung-hee's[16] study showed that the gender equality view score in social and cultural life is higher in female students than male. This indicates that values, consciousness, etc. can be influenced by personal, social, cultural, and economic environments. In this study, the childbirth will score of the subjects was limited to 2.98 points, which is the same as the study results of Kim[4] on college students. This score was lower than 3.21 points, the study results of Lee Se-young[11], and 3.12 points, the study results from nursing college students[17]. The highest score of 3.49 points was shown by the economic aspect among sub-areas, consistent with the study results of Kim[4] that showed the highest score of 3.35 points. However, in Lee Se-young's study[11], the policy aspect was highest at 3.64 points, different from the results of this study. Childbirth will differed significantly according to general characteristics, indicating that female students had higher scores on childbirth will than male students. In the personality aspect among sub-areas, female students showed significantly higher scores than male students. This result was consistent with the study results of Park[18] and can be interpreted as the consequence changes in perception according to the social trend in which women's roles and attitudes toward household affairs are changing, and women's participation in economic activities and household chores are facilitated. However, in a study by Song et al.[19], male students showed a higher intention to give birth than female students. It was in line with the research finding that while female students were concerned about the economic cost, time, and sacrifice related to parenting, male students tend to pass on the childbirth and parenting problems to future spouses. In the grade level, there was a significant difference in the policy-making aspect of childbirth will score. Third grade showed a lower birth will score than other grades, and the non-economic activity group showed a significantly lower score on childbirth will than the other group.

As a result of the correlation analysis between gender equality awareness and childbirth will, childbirth will showed a statistically significant correlation with the patriarchal family view, male-centered social view, and gender equality view. The patriarchal family view and male-centered social view showed a positive correlation with the childbirth will. The higher the score, the stronger the willingness to give birth. The gender equality social view was negatively

correlated with the childbirth will, so the higher the score, the weaker the will of childbirth. Among sub-areas, the personal aspect showed a positive correlation with the patriarchal family view and male-centered social view, and a negative correlation with the gender equality family view and gender equality social view. The economic aspect of childbirth will showed a negative correlation with the gender equality social view, and the policy aspect showed a positive correlation with gender equality awareness.

5. Conclusion

In conclusion, it was found that the subjects of this study had higher values for patriarchal male-centered values and lower scores for gender equality values. In addition, the higher the score of the patriarchal family view and the male-centered view of society, the stronger the childbirth will, and the higher the score of the gender equality view of society, the weaker the childbirth will. Therefore, in order to strengthen the childbirth will, it is necessary to break away from the traditional patriarchal role and understand according to sexual characteristics. As stated in the discussion, the reason why the previous studies show different results is that the childbirth will and the consciousness of gender equality are directly subjective and influenced by the socio-cultural background. In this study, this limitation also existed. Therefore, in the research method, we would like to make recommendations for follow-up research, such as selecting subjects in various regions including rural and urban areas, or developing tools for accurate measurement.

References

- [1] K. M. Park, Effects of gender sensitivity group counseling program on the self-efficacy development of male-female relationship and gender equality consciousness of junior college students, Master's Thesis, Pusan National University, Master's Thesis, (2012)
- [2] Sunghye Lee, Seolhee Son, The Influence of Parent-Child Intimacy, Rejection Sensitivity, and Empathy on Dating Relationship Control in Women College Students, International Journal of Advanced Nursing Education and Research, (2016), Vol.1, No.1, pp.63-68, DOI: <http://dx.doi.org/10.21742/IJANER.2016.1.1.11>
- [3] Mi Ran Lee, A Study on the Interpersonal Tendency and Perception about Marriage of University Students in the Community, Asia-Pacific Journal of Psychology and Counseling, (2018), Vol.2, No.2, pp.37-42, DOI: <http://dx.doi.org/10.21742/APJPC.2018.2.2.07>
- [4] S. H. Park, The analysis of the relationship between gender equality consciousness and perceptions of

marriage in university students - Based on university students in Gyeongsang-do region, *Journal of Education & Culture*, (2016), Vol.22, No.6, pp.207-232.

- [5] S. N. Kim, The effect of the recognition on low fertility of university students on childbirth will, *Journal of Public Policy*, (2017), Vol.24, No.1, pp.79-108.
- [6] Sunyoung Jang, Subjectivity for infertility of nursing students, *International Journal of Advanced Nursing Education and Research*, (2017), Vol.2, No.1, pp.91-96, DOI: <http://dx.doi.org/10.21742/IJANER.2017.2.1.16>
- [7] Soo-Young Lee, E Rang Kwak, Hyun-joo Lee, A Study on the Students' Perceptions of the Future, *Asia-pacific Journal of Psychology and Counseling*, (2018), Vol.2, No.2, pp.135-140, DOI: <http://dx.doi.org/10.21742/APJPC.2018.2.2.23>
- [8] S. Park, The Effects of Gender Equality in Workers on Job Stress and Career Resilience, *Pai Jae University, Master's Thesis*, (2018)
- [9] K. S. Kim, H. J. Lee, The effects of Marriage Awareness, Career Awareness, and Gender Equality to Childbirth will among College Students, *Journal of Learner-Centered Curriculum and Instruction*, (2019), Vol.19, No.13, pp.69-88, DOI: <http://dx.doi.org/10.22251/jlcci.2019.19.13.69>
- [10] Y. W. Jang, The Effect of Middle and High School Students' Gender Equality Consciousness at Home on the Resultant Value View of Marriage in Society, *Korea National University of Education, Master's Thesis*, (2017)
- [11] S. Y. Lee, D. A. G. Hong, The Study on the Idea of Marriage and Childbirth Will of College Students, *Journal of Korean Association of Family Relations*, (2014), Vol.19, No.2, pp.3-28.
- [12] Y. L. Bang, A study on the direction of childbirth promotion policies, *Doctoral Dissertation, University of Seoul*, (2010)
- [13] E. S. Yoon, A study on the acceptance of the childbirth promotion policies: Based on a survey of the citizens of Gyeonggi-Do, *Gachon University, Ph.D dissertation*, (2011)
- [14] Y. A. Park, The study on the effective element of pregnancy will, *Hansung University, Ph.D dissertation*, (2013)
- [15] K. S. Kim, J. W. Kim, The Impact of College Students' Gender Equality Consciousness to Childbirth Will: focused on Mediating about Marriage Awareness, *Journal of Learner-Centered Curriculum and Instruction*, (2019), Vol.19, No.13, pp.69-88, DOI: <http://dx.doi.org/10.22251/jlcci.2019.19.13.69>
- [16] J. H. Kang, The Influence of High School Students' Gender Equalitarianism on Their Family Values, *Hanyang University, Master's Thesis*, (2013)
- [17] S. H. Park, E. K. Byun, Factors Influencing Nursing Students' Intention of Childbirth, *Journal of the Korea Academia-Industrial Cooperation Society*, (2020), Vol.21, No.1, pp.103-111, DOI: <https://doi.org/10.5762/KAIS.2020.21.1.103>
- [18] J. M. Park, N. Y. Shin, Y. M. Kim, S. K. Kang, S. Y. Kim, W. Y. An, Influence of Recognition on Low Fertility and Views of Marriage on Childbirth Will in University Students, *Journal of the Korean Society of Maternal and Child Health*, (2019), Vol.23, No.4, pp.261-268, DOI: [10.21896/jksmch.2019.23.4.261](https://doi.org/10.21896/jksmch.2019.23.4.261)
- [19] K. H. Shon, N. H. Kim, E. S. Lee, The study on the family strength, idea of marriage and childbirth will of nursing students, *Asia - Pacific Journal of Multimedia Services Convergent with Art, Humanities, and Sociology*, (2019), Vol.9, No.1, pp.719-728, DOI: <http://dx.doi.org/10.21742/AJMAHS.2019.01.72>