

Effects of Recognition of the Pregnancy necessity on Emotional Happiness -The mediation effect of health control behavior-

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Abstract

This study was a cross-sectional survey of the effects of pregnancy necessity recognition on emotional happiness and mediation effect of health control behavior on it. A total of 200 participants in the study were collected from structured questionnaire online and the data collection was from July 1st to July 31st, 2018. Health control behavior questionnaire was developed by Wallston, K.A., Wallston, B.S. & Devellis, R (1978), Emotional happiness was analyzed by using PANAS (positive and negative affect schedule) developed by Watson, Clark and Tellegen (1988). The collected data were chi-square(X^2), Pearson correlation, Dummy regression analysis, simple regression analysis, and the mediated effect analysis by SPSS 18.0. As a result, Under statistical significance, there were differences in the recognition of pregnancy necessity were depending on religion, participant's age, number of siblings, thought of optimal marriage age($p < 0.05$). More siblings, more religious, older age, and more recognized the pregnancy necessity. The analysis of Pearson correlation with the pregnancy necessity, health control behavior, and emotional happiness revealed that it was relevant ($p < 0.01$). Dummy regression analysis showed that people who thought that pregnancy was necessary were 0.700 times more likely to feel emotional happiness than people who thought it was unnecessary ($p < 0.01$). Analysis on the mediation of health control behavior, in which the effects of pregnancy recognition on emotional happiness, showed that it was effect (other people's health control behavior: $B: .299$, $p < 0.01$, internal health control behavior: $B: .217$, $p < 0.05$). Based on these results, this study suggested that to promote pregnancy recognition, families with brother and sister should be programmed with recommendations for exercise and alcohol abstinence, religious belief and health control programs.

Keywords: Emotional happiness, Health control behavior, PANAS, Pregnancy necessity recognition,

1. Introduction

Recently, Korea is experiencing a low fertility rate [1-2]. Since 2007, the government has implemented various childcare support policies at each ministry, but the fertility rate is gradually lowering. The department in charge of resolving this problem were Ministry of Health and Welfare, Ministry of Gender Equality and Family, Ministry of Finance and Economy, Ministry of Construction and Transportation, Ministry of Education, Ministry of Labor and Ministry of Agriculture and Forestry. In detail, the government is implementing policies to raise fertility rates in various fields such as pregnancy preparation, pregnancy, childbirth, maternity protection after childbirth, childcare and child care, housing, and tax support [3]. The

declining fertility rate has an adverse impact not only on the population structure but also on the potential of economic growth, along with the aging of our society. Therefore, various approaches are being studied to understand the cause of the drop in birth. The problems caused by the demographic approach are attributed to women's social advancement [4-5]. As the educational level of women increases, the employment rate increases and as the education level increases, the marriage age slows down and the birth rate declines. It is also related to biological characteristics. Women are biologically limited in length of stay. This is because the period from marriage to childbirth affects the birth rate. The following causes are economic approaches. The value of childbirth and the cost of childbirth seem to be the cause of childbirth. This is similar to the sociological approach, as the wage level increases as the education level of women increases and the opportunity cost for childbirth rises to reduce the birth rate. The following are the reasons for the cultural approach. The cultural approach implies the influence of social normative stereotypes on the ideal family image. Variables considered in the cultural approach include, for example, male preference. The reasons for the declining fertility rate can be classified into inevitable sociological, economic, and cultural interpretations. So far, so many researchers have analyzed the causes of the declining birth rate by various approaches. However, only the cause of the problem was identified.

Looking at other studies of childbirth, there have been studies of childbirth and happiness in 2018 [6]. This study showed that the study focused on the satisfaction of the workplace and family by analyzing the family-friendly culture in the pregnancy and differentiates it from other studies. Previous studies have shown that pregnancy and childbirth focus on the negative side and this study seeks a positive aspect. In this research, two criteria were used as meaning and measure of happiness. The first was happiness as life satisfaction and subjective well-being, and the other emphasizes the quality of life and happiness as well-being [7]. It also emphasized subjective judgment and feeling rather than objective indicators in assessing quality of life. The quality of life is perceived and experienced subjectively by the individual, so it should be the standard of measurement of quality of life. In 2011, the OECD published the Better Life Index [8]. The 'better life' is measured by considering 'personal well-being' and 'sustainable well-being'. Personal well-being consists of 11 indicators. 11 indicators are classified into 'quality of life' and 'conditions of material life'. 'Quality of life' refers to income, occupation, housing, etc., and 'quality of life' refers to health, education, social linkage, environmental quality, citizen participation, subjective wellbeing, safety, Include. In other words, this study focused on happiness in the 'quality of life' that the OECD distinguished. However, studies so far have shown that happiness has been linked to childbirth by focusing only on current well-being. It is very important to understand the cause of the low fertility rate [7-11]. But if it is an inevitable cause, it is more productive to focus on the positive side and find something that can make a positive change. Diener, E (1984) defined happiness as subjective, positive, and progressive overall satisfaction with all areas of personal life [12]. Life satisfaction is defined as the acceptance and adaptation of reality as the most important factor of happiness. Factors that can affect the individual life satisfaction are sex, age, income, occupation, education, marital status, Leisure activities, etc. Watson et al. Developed PANAS in 1991 in order to express these subjective feelings as objective values [13]. This is a way of determining the mood of the individual in daily life, and consists of questions expressing positive emotions and negative emotions.

Health-control behaviors originated from the theory of social learning, and Rotter organized the concept in 1954 [14]. This theory implies a factor of the likelihood that an action will occur, and the act is determined by the value, expectation, and psychological factors of reinforcement. This is defined as health control behavior [15]. There are three types of health control behavior. It is called internal health control behavior to expect that its actions will affect the outcome, and it is called accident health control to see it happen accidentally and health controls by others what it expects to be influenced by powerful others and external forces. Through the literature review, this study aims to relate the concept of emotional happiness to induce the natural process of pregnancy from a positive point of view. In addition, this study aims to investigate the more systematic relationship between pregnancy and emotional well-being through mediating effect of health control behavior. The purpose of this study is as follows. The first, What's Differences in pregnancy necessity recognition according to general, the second, What's correlation of pregnancy necessity recognition, emotional happiness, and health control behavior, the third, What were effects of pregnancy necessity recognition on emotional

happiness, the fourth, What were the effects of health control behavior to pregnancy necessity recognition, and the fifth, what were the mediated of health control behavior while in the effects of pregnancy necessity recognition on emotional happiness.

2. Research Method

This cross-sectional descriptive study analyzed the mediation effect of health control behavior from the effects of pregnancy necessity recognition on emotional happiness through structured questionnaire online. The total number of people who participated in this study was 200. The questionnaire was collected from July 1st to July 31st, 2018.

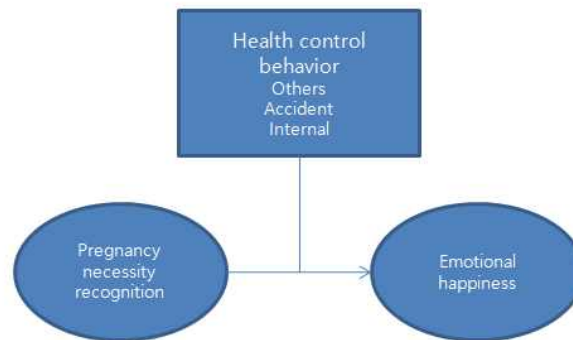


Figure 1. Research Design

2.1. Research tool

2.1.1. Health control behavior

The health control behaviors were used as a 5-point scale for the multi-dimensional health control behavior scale developed by Walston, Wallston & Kaplan & Madies in 1976 [15]. Each item consists of a 5-step Likerts scale from "Not at all (1 point)" to "Very likely (5 points)". This tool consists of three sub-concepts: internal control behavior, other dependent health control activity, accident health control activity. The others's control behavior reliability of this study was Chronbach alpha=.909, accident control behavior reliability was Chronbach alpha=.779, and internal control behavior reliability was Chronbach alpha=.627

2.1.2. Emotional happiness

Emotional happiness tools were translated and used by Watson, Clark, and Tellegen (1988). This questionnaire consists of 10 questions related to positive emotion and 10 questions related to negative emotion [13]. It has 5 points on the Likerts scale that determines the mood of the person who feels in daily life. The reliability of this study was Chronbach alpha=.911.

2.2. Statistical analysis method

This study was analyzed using SPSS 18.0. General characteristics were frequency analysis, and general characteristics and differences in pregnancy necessity recognition were analyzed by chai-square (χ^2). Pearson correlation was used to identify correlations between the recognition of pregnancy necessity and the variables of health control behaviors and emotional well-being. Dummy regression analysis were used in order to analysis the effects of recognition of pregnancy necessity on emotional happiness. . Simple regression analysis was used to determine whether the health control behaviors of participants affected the recognition of pregnancy necessity. Mediation analysis was used the effect of health control behavior while in the pregnancy necessity recognition affect to emotional happiness.

3. Result

3.1. Differences in pregnancy necessity recognition according to general characteristics

This study of Frequency analysis and Chi-square analysis (χ^2) were conducted to examine the differences in recognition of the necessity of pregnancy according to general characteristics and general characteristics of the study (Table 1). There were statistically significant differences in religion, age, family birth order, marriage age, exercise, and smoking ($p < 0.01$), and drinking was statistically significant ($p < 0.05$). Among the subjects who participated in the research, 44 people (88%) were the most people without religion, followed by 40 (20.0%) Protestant, 40 (20.0%) Catholic, 16 (8.0%). The age of the participants was the highest in the 20s (112 patients, 56.0%), the 50s age were 72 (36.0%) and those in their 30s to 40s were 16 (8.0%). Family members consisted of 80 (40.0%) brothers, 56 (28.0%) sisters, 56 (28.0%) both brother and sisters and, 8 (4.0%) only child. The idea of the optimal age of marriage was as follows. Of the participants, 112 (56.0%) responded that they were between the ages of 31 and 35, and 72 (36.0%) responded that they were between 26 and 30 years old. Eight (4.0%) were singleism. At the time of the survey, 120 people (60.0%) had exercise and 80 people (40.0%) did not exercise. There were 176 (88.0%) people who did not smoke and 24 (12.0%) people who smoke. 112 people (56.0%) were drinking alcohol and 88 people (44.0%) were not drinking alcohol. According to general characteristics, 80.0% of the Protestant and Catholic people needed pregnancy, 20.0% 'did not care' about it, and none of them answered that they did not need it but 100.0% answered that Buddhist people did not care on the other hand. 50.0% of people with other religions are needed, and 50.0% are not. 45.5% of respondents did not care about religion, and 18.2% did not need. Only 36.4% felt they needed it. As a result of examining the differences in perception of pregnancy according to the age of participants, 50.0% of the participants in the 20s did not care, and 35.7% in the next, and 14.3% in the next. 30-40s were 50% 'need', 50% did not care and 0.0% was 'did not need'. In the 50s, 77.8% of the respondents said that they need it, and 11.1% said they did not care or did not need it. As a result of analyzing the differences in the perception of pregnancy according to the number of siblings among the family members, 100.0% of the participants who were only child group did not care. 57.1% of the people with sisters answered 'I do not care', 28.6% people who answered 'I need it', and 14.3% said 'Not necessary'. Participants with brother had 60.0% of them needed, 33.3% did not need them, and 30.0% did not care about it. 71.1% of respondents with family members, older sisters, and younger siblings answered that they needed it and 'do not care' and 14.3% 'do not need it' each of them. As a result of analysis of difference in perception of pregnancy according to when it is appropriate marriage age, 67.0% of respondents answered that they were between 26-30 years old and 43.0% did not care. The difference in perception of pregnancy according to exercise was that 60.0% of the people who are currently exercising are needed, and 40.0% do not care. 30.0% of the respondents said that they do not need to do exercise and 27.0% said they do not. According to cigarette smoking, 45.0% of the current smokers were needed, 41.0% of them did not care, and 14.0% were not needed. According to the drinking, 49.0% of the people who drank alcohol were needed, 43.0% did not care, and 8.0% were not. 55.0% answered that they do not drink alcohol, 27.0% do not care, and 18.0% do not.

Table 1. Differences in pregnancy necessity recognition according to general characteristics

Classification	Type	Recognition of Pregnancy necessity			Total	χ^2
		No necessary N(%)	Either one N(%)	Necessary N(%)		
Religion	Protestant	0(0.0)	8(20.0)	32(80.0)	40(20.0)	89.946**
	Catholic	0(0.0)	8(20.0)	32(8.0)	40(20.0)	
		0(0.0)	16(100.0)	0(0.0)	16(8.0)	

	Buddhist	8(50.0)	0(0.0)	8(50.0)	16(8.0)	
	Others	16(18.2)	40(45.5)	32(36.4)	88(44.0)	
	None					
Age	20s	16(14.3)	56(50.0)	40(35.7)	112(56.0)	156.125**
	30-40s	0(0.0)	8(50.0)	8(5.0)	16(8.0)	
	50s	8(11.1)	8(11.1)	56(77.8)	72(36.0)	
Siblings	Only child	0(0.0)	8(100.0)	0(0.0)	8(4.0)	41.026**
	Sister	8(14.3)	32(57.1)	16(28.6)	56(28.0)	
	Brother	8(10.0)	24(30.0)	48(60.0)	80(40.0)	
	Both	8(14.3)	8(14.3)	40(71.4)	56(28.0)	
Optimal Married age	Singleism	8(100.0)	0(0.0)	0(0.0)	8(4.0)	41.026**
	26-30	0(0.0)	24(34.0)	48(67.0)	72(36.0)	
	31-35	16(14.4)	48(42.8)	48(42.8)	112(60.0)	
	↑ 36	0(50.0)	0(0.0)	8(100.0)	8(4.0)	
Exercise	Yes	0(0.0)	48(40.0)	72(6.0)	120(60.0)	75.082**
	No	24(30.0)	24(30.0)	32(40.0)	80(40.0)	
Smoking	Yes	0(0.0)	0(0.0)	24(100.0)	24(12.0)	25.175**
	No	24(14.0)	72(41.0)	80(45.0)	176(88.0)	
Alcohol	Yes	8(8.0)	48(43.0)	56(49.0)	112(56.0)	8.525**
	No	16(18.0)	24(27.0)	48(55.0)	88(44.0)	

**P<0.01, * p<0.05

3.2. Correlation of pregnancy necessity recognition, emotional happiness, and health control behavior

Pearson correlation was used to identify correlations between the recognition of pregnancy necessity and the variables of health control behaviors and emotional well-being (Table 2). The results of the analysis showed that the recognition of the pregnancy necessity was related to the health control by others ($r = .161$, $p < 0.05$), accident health control ($r = -.512$, $p < 0.01$), internal control ($r = .208$, $p < 0.01$) and emotional well-being ($r = .249$, $p < 0.01$). In the statistical significance level, the correlation of the health others control was accident health control ($r = .165$, $p < 0.05$), internal health control ($r = .173$, $p < 0.05$) and emotional happiness ($r = .331$, $p < 0.01$). accident health control was emotional well-being ($r = -.112$, $p < 0.01$) and internal health control was emotional well-being ($r = .260$, $p < 0.01$).

Table 2. Correlation of pregnancy necessity recognition, emotional happiness, and health control behavior

Variables	Mean	SD	Correlation				
			1	2	3	4	5
Pregnancy recognition	2.40	.695	1	.161	-.512	.208	.249
Others' control	3.89	.563		1	.165	.173	.331
Accident control	2.90	.683			1	.124	-.112
Self control	3.14	.410				1	.260
Emotional happiness	3.14	.524					1

*, Correlation coefficient is 0.05 at the (both) level

**, correlation coefficient is significant at 0.05 level (both)

3.3. Effects of pregnancy necessity recognition on emotional happiness

The results of the dummy regression analysis were used to analyze the effects of perception of pregnancy on emotional well-being (Table 3). As a result of the analysis, those who perceive that 'pregnancy is does not care' and 'pregnancy is necessary' were found to be emotionally happy by 0.889 and 0.700, respectively, at statistically significant levels ($p < 0.01$).

Table 3. Effects of pregnancy necessity recognition on emotional happiness

Model	Non-standardization Factor		Standardization Factor	t	p	Covalent statistics	
	B	SD	β			Tolerance	VF
(Constant)	2.850	.093		30.774	.000		
Either one	.889	.107	.815	8.312	.000	.391	2.560
Necessary	.700	.103	.668	6.813	.000	.391	5.560

Dependent variable : emotional happiness

3.4. The effects of health control behavior to pregnancy recognition

Table 4 shows the results of the regression analysis to determine whether the health control behaviors of participants affected the recognition of pregnancy necessity. The sub-component of health control behaviors consisted of the control by others, the control by accident, and internal control, and all of health control behavior sub-components were affected to pregnancy necessity recognition statistically significant ($p < 0.01$). The more health-control behaviors, the higher the perception of the necessity of pregnancy by 38.0% ($R^2 = .380$, $p = .000$). The Durbin-Watson value was 1.682, indicating that there was no correlation between the residuals and the independence of the residuals for statistical analysis was secured. And as a result of the analysis of variance, the significance probability was 0.00 ($p = .000$), which was suitable for the regression analysis. As a result, it was found that the p - value was lower than 0.05 and the positive (+) effect on the recognition of pregnancy was statistically significant. On the other hand, accident health control showed that p-value was lower than 0.05 and negative (-) effect on statistical significance for pregnancy recognition. It was interpreted that the tolerance limit was less than 0.1 and multi-collinearity occurs, the results of this analysis show that there was no problem in multi - collinearity. In conclusion, the health control by others and the internal health control have positive (+) influence on the recognition of pregnancy necessity at statistical significance level, and accident health control has negative (-) effect ($p < 0.01$).

Table 4. The effects of health control behavior to pregnancy recognition

Dependent factor	Independent factor	Non-standardization Factor		Standardization Factor	t	p	Tolerance limit
		B	SD	β			
Pregnancy recognition	(constant)	1.745	.393		4.436	.000	
	Others control	.264	.071	.214	3.713	.000**	.949
	Accident control	-.587	.058	-.577	-10.071	.000**	.963
	Internal control	.410	.097	.242	4.218	.000**	.961
$R^2 = .380$, Modified, $R^2 = .371$, $F = 40.055$, $p = .000$, Durbin Watson = 1.682							

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

3.5. A mediated of health control behavior while in the effects of pregnancy necessity recognition on emotional happiness

Table 5 shows the mediating effects of the health control behaviors on necessity of pregnancy recognition effects on the emotional happiness. As a result of the analysis, it was found that the sub - factor (or sub-component) of the health control by others behaviors was partially mediated under the statistical significance

($B = .299, p < 0.01$). It was shown that accident health control behavior had no mediating effect ($B = .201, p > 0.05$), and Internal health control showed mediating effects ($B = .217, p < 0.05$). In other words, as the recognition of pregnancy necessity affects the emotional happiness, the higher health control by others behaviors and internal health control behaviors, the higher the emotional happiness is recognized under the statistical significance ($p < 0.01, p < 0.05$).

Table 5. A mediated effect of health control behavior while in the effects of pregnancy necessity on emotional happiness

Parameter		1 st step	2 nd step	3 rd step	
		Others/Accident/ Internal	Pregnancy recognition	Pregnancy recognition	Tolerance limit
Others Control	(constant)	3.580	3.582	2.085	
	Preg. Recognition Others	.131(.161)**	.188(.249)**	.152(.201)**	1.000
	R ²	.026	.062	.149	.974
	Modified R ²	.021	.057	.140	
	F	5.275**	13.111**	17.235**	
	Accident Control	(constant)	4.112	3.082	3.015
Internal control	Preg. Recognition Accident	-.503(-.512)**	.188(.249)**	.197(.260)**	1.000
	R ²	.262	.062	.062	.738
	Modified R ²	.258	.057	.053	
	F	70.243**	13.111**	6.559*	
	(constant)	2.938	3.582	2.262	
	Preg. Recognition Internal	.123(.208)**	.188(.249)**	.154(.204)*	1.000
Internal control	R ²	.043	.062	.107	.957
	Modified R ²	.038	.057	.098	
	F	8.922*	13.111**	11.837**	

** $p < 0.01$, * $p < 0.05$, () was the standardized regression coefficient

4. Conclusion

The purpose of this study was to investigate whether the recognition of pregnancy necessity affected the emotional happiness and whether the health control behaviors had mediating effects. A structured questionnaire was used for the study. From July 1, 2008 to July 31, 2008, subjects were randomly selected to participate in the study voluntarily by sending the data online to the random subjects and the data were collected. The collected questionnaires were all 200. The questionnaire used emotional happiness (PANAS) and health control behaviors. Positive and Negative Affect Schedule (PANAS) was developed by Watson, Clark and Tellegen in 1988. The PANAS questionnaire consists of 10 questions related to positive emotions and 10 questions expressing negative emotions. The health control behavior questionnaire for this study used the multidimensional health control behavior scale developed by Wallston, K. A., et al. (1978).

The participants of the study were the most people who did not have religion, and participants were the most in their 20s. Participants answered that the age of marriage was the most appropriate for the age group of 31-35. This reflects the trend of increasing marriage age in recent years. At the time of the investigation, about 60.0% of people who exercise, 88.0% did not smoke, and 56.0% drank. These general characteristics should be referred to the results of the study.

There was a significant difference in recognition of pregnancy necessity according to religion, age, family members, marital age, exercise and drinking and smoking variables at the statistical significance level. 100% of respondents answered that Buddhist religious people do not care whether they are pregnant or not, and 80.0% of Protestant and Catholic people said that they need pregnancy but On the other hand, 36.4% of the

respondents did not have religion. According to the age of participants, 35.7% of respondents answered that they need pregnancy while 50.0% of those in their 30s and 40s and 77.8% of those over 50s needed it. According to the difference in family composition, 71.1% of all the siblings are needed, while 60.0% of the siblings and 28.6% of the siblings are needed, on the other hand, 0.0% of those who were only child. Based on these results, it can be inferred that people with siblings in family members are more aware of the necessity of pregnancy. And 60.0% of those who are currently doing exercise said they need pregnancy, while only 27.0% did not. According to whether or not drinking alcohol, 49.0% of respondents answered that they need pregnancy and 55.0% of those who do not drink alcohol need alcohol. Based on this, it appears that people who do not drink alcohol have a positive perception of the need for pregnancy.

Pearson correlation was used to confirm the correlation between the recognition of pregnancy necessity and the variables of health control behavior and emotional happiness. As a result, recognition of pregnancy necessity was statistically significant with health control by others ($r = .161, p < 0.05$), accident health control ($-0.512, p < 0.01$), internal health control ($r = .208, p < 0.01$) and emotional happiness ($r = .249, p < 0.01$). Based on these results, this study could analyze the causal relationship between the necessity of pregnancy and emotional happiness.

Dummy regression analysis was used to analyze the effects of recognition of pregnancy necessity on emotional happiness. Dummy analysis is an analytical method that shows how much the other variables were more effective on the basis of one variable, in this study, 'I do not need to be pregnant' was the criterion. As a result of the analysis, those who recognized 'pregnancy is necessary' were found to be 0.889 times more having emotional happiness than 'pregnancy is not necessary' and those who recognized that 'pregnancy is necessary' responded to be 0.700 times more emotional happiness, at a statistically significant level ($P < 0.01$). Based on these results, it can be inferred that those who recognized of pregnancy necessary need to feel higher emotional happiness. This result is the same as described in [16-17, 20].

In this study, regression analysis was performed to determine whether the health control behaviors, which consist of health control by others, health accident control, and internal health control affect the recognition of pregnancy necessity. As a result of the analysis, it was found that all of health control by others, health accident control, internal health control influences on the perception of pregnancy statistically significantly ($p < 0.01$). The health control behavior explained 38.0% of pregnancy necessity recognition. As a result of the analysis of variance, it was found that the control of health others and internal control of health had a positive (+) effect on pregnancy recognition and statistical significance ($p < 0.01$). Based on the above result, it was necessary to confirm whether pregnancy necessity recognition was mediated by other variable health control behaviors, not just affecting emotional happiness, in the result of the recognition of pregnancy necessity affecting emotional happiness situation. Therefore, the researchers conducted a mediating effect analysis to confirm whether the health control behavior play a mediating role. As a result of the analysis, it was found that the sub – factor (sub-component) of the health control behaviors was partially mediated under the statistical significance ($B = .299, p < 0.01$), It was shown that accident health control behavior had no mediating effect ($B = .201, p > 0.05$). Internal control showed mediating effects ($B = .217, p < 0.05$). These results were similar to those reported in [18-19]. In conclusion, those who increase recognized the necessity of pregnancy were more likely to having emotional happiness if they add health control by others and internal health control behaviors. Based on the above results, the following conclusions can be drawn.

First, the recognition of pregnancy necessity according to general characteristics was higher among people with religion, siblings and people who did not drink alcohol.

Second, the recognition of pregnancy necessity, health control behavior and emotional happiness were correlated with each other at statistical significance level ($p < 0.05$).

Third, those who perceive that "pregnancy is necessary" were 0.700 times more emotionally happy at statistically significant levels than those who 'do not need pregnancy' ($p < 0.05$).

Fourth, among the sub – factors (sub-component) of health control behaviors, other health control behavior and internal health control behaviors play a partial mediating role in the effect of recognition of pregnancy necessity on emotional happiness. In other words, it was considered that the increase of other health control behavior and internal health control behavior could increase the emotional happiness more highly. Based on the above conclusions, this research suggest that in order to pursue emotional happiness, promotes the

formation of family members with siblings more than single and regular exercise including avoid drinking alcohol. And it was expected that the religious meaning giving emotionally meaning of happiness would also play a big role. In addition, it was highly desirable to cultivate health control by others behavior and internal health control behavior in order to achieve the synergistic effect of higher emotional happiness. In the recent low fertility rate, it was suggested that if the birth promotion program will be made in the future, it should include the importance of family members, regular exercise and avoid of drinking, religious meaning of life, and health control behavior especially of health control by others and internal health control.

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