



## Original Article

# Does the pregnancy intendedness affect subjective happiness?\*

Esra Gençer,<sup>1</sup> Serap Ejder Apay<sup>2</sup>

<sup>1</sup>Diyarbakır Provincial Health Directorate, Diyarbakır

<sup>2</sup>Department of Midwifery, Atatürk University Faculty of Health Science, Erzurum

### Abstract

**Objectives:** This study aims to determine factors affecting subjective happiness, identify and compare the effects of pregnancy intendedness on subjective happiness.

**Methods:** This study is a descriptive and relationship-seeking study. 610 people were included in the study, 302 people who wanted their pregnancy and 308 people who did not want their pregnancies in Diyarbakır Maternity and Children Hospital between 29.05.2018 and 25.02.2019. A Personal Information Form and Subjective Happiness Scale (SHS) were used to collect study data.

**Results:** It was found that SHS mean scores of the women who wanted to become pregnant ( $18.58 \pm 3.82$ ) and did not want to become pregnant ( $15.62 \pm 5.01$ ) were statistically significant ( $p < 0.05$ ). Age, place of residence, spouse age, pregnancy and number of miscarriages affected the mean scores of SHS in women who wanted to become pregnant. Similarly, it was found that age, income perception, spouse age and spouse working status, number of pregnancies, number of living children and miscarriages of women who did not want to become pregnant affected the mean SHS score. In both groups, it was found that similar variables affected the mean scores of SHS and the difference between the mean scores was statistically significant ( $p < 0.05$ ).

**Conclusion:** It was found that those who wanted to become pregnant were happier and being pregnant increased their subjective happiness. In addition, socio-demographic and obstetric characteristics affected subjective happiness.

**Keywords:** Happiness; midwife; pregnancy; subjective happiness.

### What is known on this subject?

- What are the known facts about the subject? No study was found explaining the relationship between subjective happiness and pregnancy.

### What is the contribution of this paper?

- How does this article contribute to the known facts? It was found that the women who intentionally get pregnant have a higher level of happiness.

### What is its contribution to the practice?

- What is its contribution to practice? It was determined that it is necessary to express family planning methods effectively to prevent unwanted pregnancies, and to provide psychological support and midwifery/nursing care during unwanted pregnancies.

Pregnancy is a major life event where a woman's biopsychosocial balance is disrupted, roles in family and work-

place are changed, and a parental relationship is established between the baby and the mother.<sup>[1]</sup> Therefore, as a woman's mood and life affect the course of the pregnancy, the pregnancy itself also creates significant reflections on psychological and emotional lives.<sup>[2]</sup>

Although pregnancy and having a child is usually accepted positively by society, the course of pregnancy results in physiological and psychological changes. These changes might be the source of happiness in some women although it might be the source of unhappiness for others. Happiness is defined as "well-being and pleasure; satisfactory or pleasant experiences".<sup>[3]</sup> Aristotle presents a systematic view on happiness and examines it as "an act of soul in accordance

**Address for correspondence:** Serap Ejder Apay, Atatürk Üniversitesi Sağlık Bilimleri Fakültesi, Ebelik Bölümü, Erzurum, Turkey

**Phone:** +90 442 231 23 64 **E-mail:** sejder@hotmail.com **ORCID:** 0000-0003-0978-1993

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with mind" and "an activity of the soul in accordance with virtue".<sup>[4]</sup>

Some women perceive pregnancy as a positive experience; describe it as a source of joy, satisfaction, maturity, self-realization, and happiness. However, some women perceive it as a negative experience and a period of stress, anxiety, worried expectations, and excessive pressure.<sup>[5,6]</sup> Different symptoms are observed in the women who accept their pregnancy and the women who do not accept it. The symptoms observed in the women who want their pregnancy are enjoyment and happiness, tolerating the physical changes well, feelings of self-confidence and hope for themselves and their families to be able to cope with the pregnancy and delivery. The symptoms observed in the women who do not want their pregnancy are sadness and unhappiness, a feeling of getting bored due to the changes of pregnancy, thoughts that their world will become worse because of pregnancy, continuously thinking of being sick, and chronic regret of being pregnant.<sup>[7]</sup>

Mental health and emotional well-being of a woman affects the course of pregnancy while the pregnancy itself might affect the mental and emotional life of a woman as well.<sup>[8,9]</sup> Healthcare services traditionally focus on postpartum depression. During pregnancy, the recognition and prevention of psychological problems is as significant as the recognition and prevention of physiological problems in reducing the negative effects on maternal and child health. Therefore, in terms of a holistic approach, it is important that midwives, who play a significant role in prenatal care, perform a psychological evaluation as well as physical evaluation in pregnancy care.<sup>[9,10]</sup>

Subjective happiness is a status of psychological well-being, joy and peace, addressed as a balance between positive and negative affections in general life satisfaction. Subjective happiness includes both emotional and cognitive dimensions. Emotional dimension is defined as the existence of positive affectivity and non-existence of negative affectivity, while cognitive dimension is defined as life satisfaction. Individuals with high subjective happiness perceive their previous experiences more positively, have more positive thoughts, feel more personal control, and have more intense emotional reactions to positive experiences while they have short-term reactions to negative experiences.<sup>[11]</sup> There have been previous studies in the literature on subjective happiness conducted in different areas.<sup>[12-15]</sup> In a study conducted by Demirbaş and Kadioğlu, it was found that women who have difficulty accepting their pregnancy have lower adaptation to their pregnancy and motherhood, and they experience increased fear regarding the delivery. Pregnant women with higher adaptation to their pregnancy have a higher rate of getting prenatal care.<sup>[16]</sup> In unplanned pregnancies, the adaptation to pregnancy is lower, and detrimental maternal behaviors affecting the health of the baby and the mother are observed more.<sup>[17]</sup> One study reported that the nausea and vomiting rate is higher in unwanted pregnancy, and accordingly the adaptation to pregnancy and the maternity role is lower.<sup>[18]</sup>

In planned pregnancies, the woman and family are usually prepared for the news of pregnancy and this leads to happiness. The woman's acceptance of her pregnancy is easier, and her anxiety is less. She enters a happy expectancy period. However, the family initially greets an unplanned pregnancy with astonishment. The news of pregnancy is joyfully shared if the baby is wanted. However, the news of an unwanted baby may not be easily shared when the idea might make the family unhappy.<sup>[19-22]</sup>

There are few studies examining the level of happiness in pregnant women. In these studies, happiness was compared with the desire to get pregnant, the relationship between happiness and the mother's healthcare behaviors or pregnancy outcomes were analyzed. As a result of these studies, a strong relationship, such that the baby is born with a low birth weight, was found between happiness and pregnancy; however, no other study was found analyzing the relationship between negative pregnancy outcomes with happiness and risk factors, or trying to define other correlations.<sup>[16,24-26]</sup> Happiness is strongly related to life objectives. However, happiness and life objectives are not synonymous with each other, and can be measured in different ways. It is important to detail these differences, as they might have potential effects on prenatal care and pregnancy outcomes.<sup>[23]</sup>

Pregnancy might be both a source of happiness and unhappiness as well. The lack of desire to become pregnant is related to factors such as stress, concern, and anxiety. The study aims to determine factors affecting subjective happiness, identify and compare the effects of pregnancy intendedness on subjective happiness.

In line with this objective, the following questions are addressed:

Does the desire to become pregnant affect Subjective Happiness?

Does the descriptive characteristics of pregnant women affect Subjective Happiness?

Does the obstetric characteristics of pregnant women affect Subjective Happiness?

## Materials and Method

**Research Type:** The research is descriptive and relation-seeking.

**Research Place and Time:** The research was conducted in Diyarbakır Maternity and Pediatric Hospital between the dates of 29.05.2018 and 25.02.2019.

**Participants:** The research population consisted of pregnant women admitted to the Maternity Polyclinics of Diyarbakır Maternity and Children Hospital for their antenatal checks between 02.08.2018 and 30.12.2018. Without using a sampling method, 610 pregnant women who met the research participation criteria were included in the study, 302 people who wanted to be pregnant and 308 people who did not want to be pregnant. The pregnant women were divided into two

groups according to the answers to the question: "Did you want to become pregnant?" presented on the Personal Information Form. Pregnant women who were at least 18 years old, did not have any visual or hearing impairment, did not a high-risk pregnancy, were open to communication and cooperation, did not have any mental health issues, and who were in the second trimester of their pregnancy were included in the study. The second trimester was preferred as it is the period when pregnancy-related complaints and disorders are least observed.<sup>[1]</sup>

**Research Tools:** The Personal Information Form and Subjective Happiness Scale (SHS) were used to collect research data.

**Personal Information Form:** This form consisted of 13 ques-

tions determining the sociodemographic characteristics (age, education status, employment status, years of marriage, the desire to become pregnant, etc.) and the obstetrical characteristics (number of previous pregnancies, number of living children, miscarriages, and abortions, etc.) of the pregnant women.

**Subjective Happiness Scale:** The Subjective Happiness Scale (SHS) was developed by Lyubomirsky and Lepper,<sup>[24]</sup> and its Turkish validity and reliability study was carried out by Doğan and Totan.<sup>[25]</sup> It was a 7-point Likert-type scale that consisted of four-descriptive items. The participants were asked to rate their agreement for the statements in each item. The fourth item of the scale was reverse coded, and the scores of all items

**Table 1. Comparison of descriptive characteristics of the pregnant women**

Characteristics	Women who wanted to become pregnant (n=302)		Women who did not want to become pregnant (n=308)		Test and p-value
	n	%	n	%	
Age					
18–27 years old	142	47.0	125	40.5	$\chi^2=2.58$ p=0.27
28–37 years old	106	35.1	120	39.0	
↑ 38 years old	54	17.9	63	20.5	
Education status					
Literate	111	36.8	119	38.6	$\chi^2=4.64$ p=0.09
Primary school	46	15.2	64	20.8	
Minimal high school degree or higher	145	48.0	125	40.6	
Employment status					
Employed	9	3.0	3	1.0	$\chi^2=3.18$ p=0.07
Unemployed	293	97.0	305	99.0	
Years of marriage					
1–10 years	165	54.6	163	52.9	$\chi^2=0.18$ p=0.67
↑ than 11 years	137	45.4	145	47.1	
Perception of income status					
Income equal to expenses	213	70.5	203	65.9	$\chi^2=1.50$ p=0.22
Income less than expenses	89	29.5	105	34.1	
Place of residence					
Province	130	43.1	117	38.0	$\chi^2=1.75$ p=0.41
District	69	22.8	73	23.7	
Village	103	34.1	118	38.3	
Spouse's age					
20–29 years old	124	41.1	112	36.4	$\chi^2=2.53$ p=0.28
30–39 years old	104	34.4	125	40.6	
↑ 40 years old	74	24.5	71	23.0	
Spouse's education level					
Primary school graduate	109	36.1	118	38.3	$\chi^2=3.48$ p=0.17
High school graduate	144	47.7	156	50.7	
University graduate	49	16.2	34	11.0	
Spouse's employment status					
Unemployed	120	39.7	107	34.7	$\chi^2=1.62$ p=0.20
Employed	182	60.3	201	65.3	

were totalled to obtain a subjective happiness score. The total score of the scale ranged from 4 to 28, with a higher score indicating higher subjective happiness. In the validity and reliability study of Doğan and Totan<sup>[25]</sup> the Cronbach's Alpha was found to be 0.65. In this study, the Cronbach's Alpha was found to be 0.61. The literature states that Cronbach's Alpha coefficient between 0.60 and 0.80 is quite reliable.<sup>[26]</sup> If a test is given to a homogeneous group, the variability in total test score will decrease and then the alpha coefficient will be smaller; if the same test is given to a heterogeneous group, the variability in the total test score will increase and then the alpha coefficient will increase.<sup>[27]</sup> In this research, homogeneous groups might lead to a low Cronbach's Alpha coefficient.

**Data Collection:** Data were collected by the researcher using the face-to-face interview technique between 15.06.2018 and 30.12.2018. After the completion of polyclinic examina-

tions and procedures, the pregnant women were brought to an available room and given the forms by the researcher using the face-to-face interviewing technique. The pregnant women were informed about the research prior to being given the forms. The interviews lasted about 4-6 minutes for each pregnant woman (about 2-4 minutes for the Personal Information Form, and about 2 minutes for the SHS).

**Statistical Evaluation:** Data were evaluated using the Statistical Package for the Social Sciences 18.0 software. To evaluate the data, percentages, mean, standard deviation, ANOVA, t-test, Kruskal Wallis, and Mann-Whitney-U test were used.

**Research Limitations and Generalizability:** The research was limited to the Diyarbakır Maternity and Pediatric Hospital. It cannot be generalized to the country.

**Research Ethical Principles:** The Ethics Committee of the Faculty of Health Sciences of Atatürk University gave ap-

**Table 2. Comparison of obstetrical characteristics of the pregnant women**

Characteristics	Women who wanted to become pregnant (n=302)		Women who did not want to become pregnant (n=308)		Test and p-value
	n	%	n	%	
Age at first pregnancy					
Younger than 18 years old	38	12.6	50	16.2	X <sup>2</sup> =1.64
Older than or equal to 18 years old	264	87.4	258	83.8	p=0.19
Number of pPregnancies					
1-2	103	34.1	80	26.0	X <sup>2</sup> =5.18
3-4	72	23.8	76	24.7	p=0.07
At least five	127	42.1	152	49.4	
Number of living children	(n=154)		(n=248)		
1-2	60	39.0	77	31.0	X <sup>2</sup> =5.77
3-4	47	30.5	66	26.6	p=0.05
At least 5	47	30.5	105	42.3	
Number of stillbirths	(n=14)		(n=15)		
1	9	64.2	12	80.0	X <sup>2</sup> =0.91
2	5	35.7	3	20.0	p=0.63
Number of miscarriages	(n=55)		(n=73)		
1	35	63.6	45	61.6	X <sup>2</sup> =2.82
At least 2	20	36.4	28	38.4	p=0.24
Number of abortions	(n=13)		(n=16)		
1	12	92.3	14	87.5	X <sup>2</sup> =0.44
2	1	7.7	2	12.5	p=0.80
Duration between the last two pregnancies	(n=176)		(n=249)		
1 year	36	20.5	33	13.3	X <sup>2</sup> =6.57
2 years	39	22.2	76	30.5	p=0.08
3 years	38	21.6	46	18.5	
At least 4 years	63	35.5	94	37.8	
Gender of fetus					
Unknown	45	14.9	69	22.4	X <sup>2</sup> =5.68
Male	115	38.1	109	35.4	p=0.05
Female	142	47.0	130	42.2	

approval prior to the start of the research (date 29/05/2018 and 2018/02/05 numbered). Diyarbakır Public Hospital Unity of the Turkish Republic Ministry of Health gave official permission for the questionnaire study (dated 02/08/2018 and numbered 97893136-799). To protect the rights of the participants in the research, ethical principles were fulfilled prior to starting research data collection. The research objective was explained to the women with the principle of "Informed Consent", they were informed about the data confidentiality with the principle of "Confidentiality and Protecting Confidentiality", and women who volunteered to participate in the research study were informed about the principle of "Respect for Autonomy".

## Results

Table 1 presents the comparison of the descriptive characteristics of the pregnant women in the research. Of the pregnant women who wanted to become pregnant, 47% were between 18 and 27 years old, 48% received at least a high school degree, 97% did not work, 54.6% had been married for 1–10 years, 70.5% had a perception of medium level of income, 43.1% lived in the city center, 41.1% had a spouse aged between 20 and 29 years, 47.7% had a spouse with a high school degree, and 60.3% had an employed spouse. Of the pregnant women who did not want to become pregnant, 40.5% were between 18 and 27 years old, 40.6% received at least a high school degree, 99% did not work, 52.9% had been married for 1–10 years, 65.9% had a perception of medium level of income, 38.3% lived in a village, 40.6% had a spouse aged between 30 and 39 years, 50.7% had a spouse with a high school degree, and 65.3% had an employed spouse (Table 1).

Examining the obstetrical characteristics of the pregnant women, it was found that of the women who wanted to become pregnant, 87.4% were over 19 years of age in their first pregnancy, 42.1% had become pregnant more than five times, 39% had one or two children, nine women had a stillbirth, 35 women had miscarriages, 12 women had an abortion only once, 35.5% had a pregnancy interval of at least four years, and 47% were expecting a female. The obstetrical characteristics of the women who did not want to become pregnant showed that 83.8% were over 19 years of age in their first pregnancy, 49.4% had become pregnant more than five times, 42.3% had at least five children, 12 women had a stillbirth, 45 women had one miscarriage, 14 women had an abortion only once, 37.8% had a pregnancy interval of at least four years, and 42.2% were expecting a female. (Table 2).

Table 3 presents the comparison of the min-max scores and mean scores of the pregnant women from the SHS. The women who wanted to become pregnant received a minimum of nine points, and a maximum of 27 points from the SHS with a mean score of  $18.88 \pm 3.82$ . The women who did not want to become pregnant received a minimum of four points, and a maximum of 28 points on the SHS with a mean score of  $15.62 \pm 5.01$ . The difference between the mean scores of the groups was found to be statistically significant ( $p < 0.05$ ), (Table 3).

Examining the SHS mean scores according to the descriptive characteristics of the pregnant women; it was determined that the difference between the mean scores of the groups in terms of age, place of residence, and the spouse's age of the women who wanted to become pregnant was statistically significant ( $p < 0.05$ ). In the women who did not want to become pregnant, it was found that age, perception of income status, spouse's age, and the spouse's employment status have an effect on the SHS mean score (Table 4).

Table 5 presents the mean SHS scores of the pregnant women according to their obstetrical characteristics. Of the women who wanted to be pregnant, the mean SHS scores were found to be  $19.66 \pm 3.64$  for the ones who had one or two pregnancies,  $19.03 \pm 3.79$  for the ones who had three to four pregnancies, and  $17.50 \pm 3.82$  for the ones having at least five pregnancies. The differences between the groups was found to be statistically significant ( $p < 0.05$ ). The mean SHS score of the women who had one miscarriage was found to be  $19.40 \pm 3.33$  and the mean SHS score of the women who had two miscarriages was found to be  $16.55 \pm 4.35$ . The differences between the mean scores was statistically significant. Of the women who did not want to become pregnant, the mean SHS scores were found to be  $18.55 \pm 4.68$  for the ones who had one or two pregnancies,  $14.92 \pm 4.19$  for the ones who had three or four pregnancies, and  $13.96 \pm 5.57$  for the ones having at least five pregnancies. The differences between the groups was found to be statistically significant ( $p < 0.05$ ). The mean SHS score was found to be  $15.97 \pm 5.97$  for the ones with one or two living children,  $15.14 \pm 4.00$  for the ones with three or four living children, and  $13.03 \pm 4.23$  for the ones with at least five living children. The difference between the mean scores of the groups was determined statistically significant ( $p < 0.05$ ). The mean SHS score of the women who had one miscarriage was found to be  $17.03 \pm 3.55$  and who had at least two miscarriages was found to be  $14.44 \pm 4.42$ . The differences between mean scores was found statistically significant ( $p < 0.05$ ). Examining the difference between the mean scores of the women according to the duration between the last two pregnancies; it was found to be

**Table 3. Comparison of minimum-maximum and mean SHS scores of the pregnant women**

Groups	Minimum	Maximum	Mean $\pm$ SD	Test and p-value
Women who wanted to become pregnant	9	27	$18.88 \pm 3.82$	$t=9.02$ $p=0.000$
Women who did not want to become pregnant	4	28	$15.62 \pm 5.01$	

**Table 4. Comparison of the mean SHS scores of the pregnant women according to their descriptive characteristics**

Characteristics	Women who wanted to become pregnant	Women who did not want to become pregnant
	Mean±SD	Mean±SD
Yaş		
18–27 years old	19.59±3.70	17.03±5.22
28–37 years old	19.03±3.75	16.22±3.96
↑ 38 years old	17.84±3.82	13.85±4.74
Test and p-value	F=6.63, p=0.002	F=14.04, p=0.000
Education status		
Literate	18.89±3.85	14.91±4.46
Primary school graduate	18.34±4.15	16.46±4.89
Minimum high school graduate	19.04±3.70	15.87±5.46
Test and p-value	F=0.58, p=0.55	F=2.27, p=0.10
Employment status		
Employed	20.77±2.04	18.00±4.00
Unemployed	18.82±3.85	15.60±5.01
Test and p-value	MW-U=882.50, p=0.09	MW-U=330.50, p=0.40
Years of marriage		
1–10 years	18.84±3.77	16.12±5.49
More than 10 years	18.93±3.90	15.06±4.34
Test and p-value	t=0.20, p=0.83	t=1.85, p=0.06
Perception of income status		
Income equal to expenses	19.11±3.72	16.25±5.26
Income less than expenses	18.33±4.03	14.41±4.21
Test and p-value	t=1.61, p=0.10	t=3.08, p=0.002
Place of residence		
Province	19.94±3.28	16.15±4.88
District	18.83±3.55	15.91±5.51
Village	18.36±4.19	14.92±4.73
Test and p-value	F=3.93, p=0.02	F=1.95, p=0.14
Spouse's age		
20–29 years old	19.61±3.83	17.32±5.26
30–39 years old	18.83±3.42	15.88±4.01
↑ 40 years old	18.04±3.93	13.96±4.75
Test and p-value	F=4.85, p=0.008	F=14.66, p=0.000
Spouse's education status		
Primary school graduate	18.74±3.49	15.11±4.61
High school graduate	18.97±4.03	15.71±5.26
University graduate	18.91±3.97	17.02±4.88
Test and p-value	F=0.12, p=0.88	F=2.01, p=0.13
Spouse's employment status		
Unemployed	18.98±3.88	16.60±5.34
Employed	18.81±3.79	15.10±4.73
Test and p-value	t=0.36, p=0.71	t=2.53, p=0.01

13.63±4.26 for the women with more than one year duration, 13.68±5.14 with more than two years' duration, 15.69±5.37 with more than three years' duration, and 16.08±4.40 with more than four years' duration. The differences between the mean scores of the groups is statistically significant ( $p<0.05$ ).

The mean SHS score for the pregnant women who did not know their babies' gender was found to be 16.04±4.96, for those with a male gender was 16.49±4.79, and female gender was 14.67±5.06. The difference between the mean scores of the groups is statistically significant ( $p<0.05$ ).

**Table 5. Comparison of the mean SHS scores of the pregnant women according to their obstetric characteristics**

Characteristics	Women who wanted to become pregnant	Women who did not want to become pregnant
	Mean±SD	Mean±SD
Age at first pregnancy		
Younger than 18 years	19.13±3.93	16.12±4.28
19 years and over	18.84±3.81	15.53±5.13
Test and p-value	t=0.42, p=0.67	t=0.76, p=0.44
Number of pregnancies		
1-2	19.66±3.64	18.55±4.68
3-4	19.03±3.79	14.92±4.19
At least 5	17.50±3.82	13.96±5.57
Test and p-value	F=7.26, p=0.001	F=22.04, p=0.000
Number of living children		
1-2	17.80±3.97	15.97±5.97
3-4	17.63±3.98	15.14±4.00
At least 5	19.02±3.00	13.03±4.23
Test and p-value	F=2.01, p=0.13	F=7.17, p=0.001
Number of stillbirths		
1	16.66±3.20	15.33±4.69
2	16.40±4.50	19.33±2.08
Test and p-value	MW-U=22.00, p=0.94	MW-U=5.00, p=0.05
Number of Miscarriages		
1	19.40±3.33	17.03±3.55
More than one	16.55±4.35	14.44±4.42
Test and p-value	MW-U=225.00, p=0.02	MW-U=405.00, p=0.01
Number of abortions		
1	18.16±4.60	15.85±5.55
2	13.00±0.01	17.50±6.36
Test and p-value	MW-U=2.00, p=0.28	MW-U=11.00, p=0.63
Length of time between the last two pregnancies		
1 year	18.65±3.84	13.63±4.26
2 years	18.51±3.88	13.68±5.14
3 years	17.75±3.58	15.69±5.37
More than 4 years	17.63±3.83	16.08±4.40
Test and p-value	F=0.83, p=0.47	F=4.99, p=0.002
Gender of fetus		
Unknown	18.02±3.24	16.04±4.96
Male	19.16±3.85	16.49±4.79
Female	18.92±3.95	14.67±5.06
Test and p-value	F=1.46, p=0.23	F=4.31, p=0.01

## Discussion

No study was found in the literature to explain the relationship between pregnancy and subjective happiness; therefore, the discussion section was organized based on the previous studies on pregnancy and happiness.

In the comparison of the mean scores from the SHS, a difference was found between the groups. Examining the mean scores

of the groups, the average score of the women who wanted to become pregnant were higher than the mean score of the women who did not want to become pregnant. This difference might be attributed to the idea that the women wanted to become pregnant. Therefore, considering that the works willingly done brings about happiness, willingly become pregnant may also provide happiness. Türk et al. observed that the desire to become pregnant does not affect happiness; however, it

was found that the women who wanted their pregnancy had higher mean scores of happiness.<sup>[28]</sup> Atasever and Altun<sup>[29]</sup> have found that the psychological mood and amount of perceived social support of the women who wanted to be pregnant was higher than the women who did not want to be pregnant. In the study of Blake et al.,<sup>[23]</sup> a significant relationship was found between a woman's happiness during the pregnancy and her desire of getting pregnant. In other words, the pregnancy desire affected happiness in the pregnancy. Comparing 67% of the women who were happy with their pregnancies with 16% of the women who were moderately happy with their pregnancies, and 4% of the women who were unhappy with their pregnancies; it was found that the women who were happy with their pregnancies planned their pregnancies before they got pregnant. Of the women who were happy with their pregnancy, 27% had a difficult delivery. On the other hand, 59% of the pregnant women who were moderately happy, 39% of the pregnant women who were unhappy stated that they experienced a pregnancy that they cannot identify as either positive or negative. To conclude, it was found that 6% of the women who were happy to be pregnant had an unwanted pregnancy; on the contrary, 25% of the pregnant women who are moderately happy and 57% of the pregnant women who are unhappy had an unwanted pregnancy. Therefore, it can be concluded that unwanted pregnancies cause unhappiness.<sup>[23]</sup>

Examining the comparison of the mean SHS scores of the pregnant women according to their descriptive characteristics, it was determined that the differences between the mean scores of the groups are significant according to the age, place of residence, and spouse's age of the women who wanted to become pregnant. Similarly, for the women who did not want to become pregnant, it was found that age, the perception of income status, age of the spouse, and spouse's employment status affected the mean SHS score. Of the women who willingly got pregnant, the mean scores were found higher for the ones aged between 18 and 27 years, who live in a province center, and whose spouses were younger. It was considered that the difference is based on these variables. Of the women who did not want to become pregnant, the mean scores were found higher for the younger ones, who had an income equal to expenses, whose spouses were younger and employed. It was considered that the difference is based on these variables. Considering several factors have an effect on happiness in pregnancy, it was found normal to have significant differences in terms of some factors. Türk et al. have found that the spouse's education status affected happiness, but variables such as age, spouse's age, education, marital age, years of marriage, employment status, spouse's employment status, the perception of income, place of residence, and family type do not affect happiness.<sup>[28]</sup> Yağmur, Oltuluoğlu and Ergin<sup>[30]</sup> have carried out the study using the Oxford Happiness Scale (OHS) in which they did not find the difference between the mean OHS scores of the pregnant women as statistically significant according to employment status or place of residence. In the study, the difference between total OHS scores accord-

ing to the educational status of the pregnant women was found significant, and the difference was based on the groups of primary school graduates and higher school graduates. It was found that the pregnant women whose spouses graduated from a university have higher total OHS scores than the pregnant women whose spouses have other education status.

For both groups, no significant difference was found between the age of first pregnancy and the mean SHS scores. Considering that younger women have more desire to become pregnant, it might be normal that there is no significant difference between the mean scores. Contrary to the research finding, Türk et al. have found the age of first pregnancy as a factor affecting happiness.<sup>[28]</sup> Yağmur, Oltuluoğlu and Ergin<sup>[30]</sup> have found that happiness scores according to age differ in pregnant women, and this difference is based on the pregnant women aged between 18 and 26 years old.

Of the women who had wanted and unwanted pregnancies, the mean SHS score of the women who had one or two pregnancies was found higher than the women who had three to five or more children, and the difference between the mean scores of the groups was found significant. Having many pregnancies is a destructive cycle for women. Adding new responsibilities for the women and the added extra economic burden to the family from an additional new member in the household is thought to make women who wanted or did not want to get pregnant unhappy. Contrary to the research finding, Türk et al. have found that the number of pregnancies did not affect the mean score of happiness.<sup>[28]</sup>

No significant difference was found between the number of living children and the SHS mean scores of the women who wanted to become pregnant, while a significant difference was observed between the number of living children and the SHS mean scores of the women who did not want to become pregnant. The research showed that as the number of children increased the mean scores decreased. Considering the higher SHS scores of the women who did not to become pregnant and the women who have one or two children are happier, it might be considered that the difference is due to this group. Having too many children also brings too many responsibilities. Of the women who did not want to become pregnant and the ones who have too many children; considering their lack of desire to get pregnant and have new responsibilities, this difference might be taken as normal. Türk et al. have found that the number of children does not affect the mean score of happiness.<sup>[28]</sup>

A significant difference was found in the mean SHS scores of the pregnant women who had experienced a miscarriage between those who wanted to become pregnant and those who did not want to become pregnant. The mean SHS score of the women who had one miscarriage was found higher than the women who had experienced at least two miscarriages. Having frequent miscarriages may create anxiety for women who believe that their current pregnancy might be another miscarriage. Therefore, the significant difference created by the

number of miscarriages with the SHS mean scores emerged as an expected result. In Türk et al.'s study, it was observed that the number of miscarriages did not affect the mean score of happiness.<sup>[28]</sup>

For the women who wanted to become pregnant, no significant difference was found between the length of time between the last two pregnancies and the mean SHS scores. However, for women who did not want to become pregnant, a significant difference was found between the length of time between the last two pregnancies and the mean SHS scores. Mean scores were shown to increase with an increase in the time interval between pregnancies. The mean scores of women who had at least four years between pregnancies were found higher than the others, and the difference is considered to be based on this. The length of time between pregnancies might lead to an increase in the desire to get pregnant again; however independent of this, an unwanted pregnancy might have a negative effect on the desire to become pregnant again.

No significant difference was found between knowing the baby's gender and the mean SHS scores for the women who wanted to become pregnant. For the women who did not want to become pregnant, the mean SHS scores illustrated that those with a male fetus were higher than those with a female fetus. The difference among the mean scores of the groups was significant. As the mean score of the pregnancies with a male fetus was higher, the difference may be considered as having a male child in Eastern societies as a significant issue. The study was conducted in the Eastern region where a normal perception is that a woman who did not want to become pregnant would consider their pregnancy with a boy baby as a source of happiness. Yağmur, Oltuluoğlu and Ergin<sup>[30]</sup> however, did not find a significant difference between the mean SHS scores considering the gender of the baby with the current pregnancy and the gender the woman wanted to have.

## Conclusion

Pregnancy and giving birth to a child is often a source of happiness both for the woman and for family members; however, the desire or lack of desire of the pregnancy can change that situation. Pregnancy results in physiological and psychological changes in pregnant women and women enter an adaptation stage for their pregnancy after they become pregnant. This adaptation stage is closely related with the desire or lack of desire of the pregnancy. While the desire to be pregnant has a positive effect on the adaptation stage, the lack of desire can result in a difficult course of pregnancy.

In general, happiness and specifically subjective happiness is explained by an individual's mental and physical well-being. The following results were obtained in the study conducted to examine the effects of a wanted or unwanted pregnancy on subjective happiness.

The mean scores of subjective happiness of the women who wanted to become pregnant were found higher than the

mean score of subjective happiness of the women who did not want to become pregnant.

The difference between the mean score of the groups of the women who wanted to become pregnant according to their age, place of residence, and the spouse's age were found statistically significant.

It was found that age, the perception of income status, the spouse's age, and the spouse's employment status affected the mean score of SHS for women who unwillingly became pregnant.

Examining the results obtained from the study data, it was found that the desire to become pregnant positively affects subjective happiness. To increase subjective happiness, healthcare employees; particularly midwives, and educational system have significant responsibilities. Based on the research findings, the following are recommended:

- Midwives should talk about all positive and negative aspects of pregnancy to women who do not want to be pregnant, and provide detailed information to these women for interventions for negative experiences related to the pregnancy
- Encourage pregnant women who are affected psychologically about their pregnancy to receive psychological support
- Explain family planning methods to women who come to maternity polyclinics to prevent unwanted pregnancies
- Conduct similar researches in different regions with different sampling groups.

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