Original Article

Preferences Regarding Mode of Delivery and Stress Coping Styles of Female University Students: A Cross Sectional Study

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Abstract

Background: In recent years, the rate of cesarean section has increased worldwide. Cesarean section rates should be reduced in terms of maternal and neonatal health.
Objective: To evaluate relationship between preferences regarding mode of delivery and the stress coping styles of female university students.
Methodology: Study was conducted with 548 students studying at health science faculty of a university in Turkey, between October 10/2016-February 15/2017. Data were collected by Socio-Demographic Characteristics Questionnaire and Stress Coping Styles Scale (SCSS).
Results: Upon examining preferences regarding mode of delivery of students, it was found out that 71% of the students preferred normal vaginal delivery and 4% preferred cesarean section. Cronbach's alpha reliability coefficients according to students' SCSS sub-dimensions were found to be between ∞=0.60-0.82. A statistically significant difference was found between delivery preferences of the individuals with "optimistic approach", "desperate approach", and "applying for the social support" among sub-dimensions of scale ($p<0.05$). It was found out that individuals who preferred vaginal delivery had a more optimistic approach than individuals who were indecisive ($p<0.05$), and individuals who had a desperate approach preferred cesarean section more ($p<0.05$).
Conclusions: It was found out that female students who were in an "optimistic approach" and "desperate approach" in terms of ways of coping with stress tended to prefer normal birth.

Key words: mode of delivery, patient preferences, coping with stress

Introduction

There is an increase in the rates of cesarean section around the world. Nowadays, in relation to the rapid increase in these rates, the World Health Organization (WHO) accepts the rate of cesarean section between 5-15% to be normal (WHO, 2015). However, Turkey both has extremely exceeded this rate and is in the first place among many countries with the cesarean section rate of 53% (OECD, 2017). This is worrisome for our country both in terms of the risks and costs. It is suggested that the cesarean section preference of females as a mode of delivery has an important contribution to the increase in this rate (Sercekus, Cetisli and İnci, 2015). Politicians, service providers, and related organizations nationwide work to reduce the rates of cesarean section.

Studies conducted in Turkey show that females mostly prefer normal delivery (Sercekus, Cetisli and İnci, 2015; Gozukara and Eroglu, 2008; Yasar et al., 2007). It is thought-provoking that

although normal delivery is most preferred, the rates of cesarean section are very high. Studies on increasing normal delivery are important in terms of reducing the rates of cesarean section in our country.

This increase in the rates of cesarean section has directed researchers to reveal the reasons for this. According to the study results, factors affecting cesarean section were determined to be technological developments, advances in anesthesia methods, inclinations of gynecologists, doctor advice, being able to fight infection, progression of the age of pregnancy, living in the city, family, giving birth in a private hospital, risky pregnancy, hospitalization, reduced number of parities, previous cesarean, high socio-economic status, living in a nuclear family, obstetric experiences, being pregnant with assisted reproductive techniques, the lack of information during pregnancy, the reduced effectiveness of the midwife and the intervention of the doctor to the birth, the introduction of the malpractice concept, the fear of delivery and the will of the female, circle of friends, the thought that the baby will be healthier, media and the health personnel, education, marriage age and duration, and receiving information about delivery preferences (Gozukara and Eroglu, 2008; Ozkan et al., 2013). It is stated that providing education to females on the modes of delivery and focusing more on the delivery preferences of females may potentially contribute to reducing the rate of cesarean section (Yee et al., 2015).

Females should be supported to select their mode of delivery as normal vaginal delivery. Despite being a physiological phenomenon, delivery is also known to cause stress on individuals. This stress sometimes occurs due to the fear of delivery and sometimes due to the anxiety felt towards unknown (Sapountzi-Krepia et al, 2011, Ergol and Kurtuncu, 2014). Coping with stress is related to the coping styles of individuals and individuals can be strengthened in this direction. This study was conducted to determine the relationship between the stress coping styles and preferences mode of delivery of female students since it was thought that the stress coping styles of individuals might affect their delivery preferences.

Aim: This study was aimed to evaluate relationship between preferences regarding mode of delivery and the stress coping styles of female university students.

Methodology

Study design: The study was conducted as a cross sectional study.

Data collection: The research was carried out as a descriptive and cross-sectional study. The sample of the study consisted of 548 students studying at the faculty of health sciences of a university and agreeing to participate in the study. Institutional approval, participant consents, and ethics committee approval were obtained for the study. The data were collected between 10 October 2016 and 15 February 2017.

Data collection instruments: The Socio-Demographic Characteristics Questionnaire and Stress Coping Styles Scale (SCSS) were used in the data collection. The Socio-Demographic Characteristics Questionnaire is a questionnaire form consisting of 22 questions prepared to investigate the socio-demographic characteristics and information about the vaginal delivery and cesarean section of students. The “Stress Coping Styles Scale (SCSS)”, which is the adaptation of the “Ways of Coping Inventory” consisting of 66 items and developed by Folkman and Lazarus (Folkman and Lazarus, 1980), into Turkish performed by Sahin and Durak with university students, was used in the evaluation of the stress coping methods (Sahin and Durak, 1995). This scale has four-point Likert-type scoring consisting of a total of 30 items. It consists of five sub-dimensions in total, being the “Self-Confident Approach”, “Optimistic Approach”, “Desperate Approach”, “Submissive Approach”, and “Applying for the Social Support”. When scoring is performed, items 1 and 9 are scored reversely. Scores can be obtained separately for each sub-scale. Subscale scores are obtained by dividing the score obtained from each subscale by the number of items. High scores indicate that the approaches in that sub-scale are used more, and low scores indicate that the approaches in that sub-scale are used less (Sahin and Durak, 1995; Yılmaz, 2010). The reliability of the SCSS was determined with the Cronbach’s alpha reliability coefficient. The reliability of the factors varies between .45 and .80 (Sahin and Durak, 1995; Yılmaz, 2010).

Data analysis: The data were evaluated using the Statistical Package for Social Sciences (SPSS) for Windows 21.0 statistical package program in the computer environment. In the evaluation of the data, frequency, percentage calculation, mean and standard deviation, and t-test were used.

Results

As a result of the study, the age average of the students was found to be 20.4±0.1 years. Of the students, 50% study at the nursing department, 30% are in the 3rd grade, 64% live in the city, 70% state that their income and expenses are equal and 92% do not work (Table 1).

Table 1. The Distribution of the Information Related to the Demographic Data (N = 548)

Variables		n	%
Department	Midwifery	268	49
	Physical Therapy and Rehabilitation	123	22
	Health Management	80	15
	Social Service	77	14
Grade	1	137	25
	2	137	25
	3	158	29
	4	116	21
Place of Living	Village	35	6
	Town	15	3
	District Center	146	27
	Province	352	64
Monthly Income	Income is less than expenses	110	20
	Income is equal to expenses	382	70
	Income is more than expenses	56	10
Working Status	Employed	43	8
	Unemployed	505	92

When the delivery preferences were examined, it was found out that 71% of the students preferred normal delivery and 4% preferred cesarean section. When the factors that may affect the preferences mode of delivery were examined, it was determined that 98% of the students heard about normal delivery, 99% heard about cesarean section, 85% were born by normal vaginal delivery, 97% received advice on normal delivery, and 48% received advice on cesarean section. 70% of the participants said that they listened to negative experiences related to delivery and 85% said that they were afraid of delivery (Table 2). Students expressed that they preferred normal delivery mostly due to "easy and quick postpartum recovery" and preferred cesarean section due to "the fear of labor pain" (Table 3). The Cronbach's alpha reliability coefficients according to the students' SCSS sub-dimensions were found to be between ∞=0.60-0.82 (Table 4). There was no significant difference between delivery preferences with being in a "self-confident approach" and "submissive approach" among the scale sub-dimensions ($p>0.05$). A statistically significant difference was found between the delivery preferences of individuals with the "optimistic approach", "desperate approach", and "applying for the social support" among the sub-dimensions of the scale ($p<0.05$). It was found out that individuals who preferred normal vaginal delivery had a more "optimistic approach" than individuals who were indecisive ($p<0.05$). It was determined that individuals who preferred cesarean section, who were indecisive about the delivery preference, and who did not want to give birth had a "desperate approach" compared to the individuals preferring normal delivery ($p<0.05$). It was found out that the approaches of "applying for the social support" of those who did not want to give birth were lower compared to the other groups ($p<0.05$) (Table 5).

Table 2. The Distribution of the Information About the Delivery Preferences (N = 548)

	Answer	n	%
Hearing about Vaginal Delivery	Yes	537	98
	No	11	2
Hearing about Cesarean Section	Yes	542	99
	No	6	1
Mode of Delivery of Your Mother	Normal delivery	468	85
	Cesarean section	80	15
Receiving Advice on Normal Delivery	Yes	530	97
	No	18	3
Receiving Advice on Cesarean Section	Yes	266	48
	No	282	52
Negative Experience	Yes	381	70
	No	167	30
Fear of Delivery	Yes	463	85
	No	85	15
Birth Book	Yes	127	23
	No	421	77
Delivery Preference	Normal delivery	388	71
	Cesarean	24	4
	Indecisive	121	22
	I do not want to give birth	15	3

Table 3. The Distribution of the Information About the Delivery Preferences (N = 412)

Reasons for the vaginal delivery preference (n = 388)	n*	%	Reasons for the cesarean section preference (n = 24)	n*	%
Easy and quick postpartum recovery	383	99	The fear of labor pain	24	100
Being a natural method	346	89	The fear of episiotomy (surgical cut to the perineum)	24	100
Healthier for the baby	334	86	The fear of delivery room and obstetric table	20	83
Less painful postpartum period	311	80	The negligence of psychological and emotional support in delivery	18	75
Healthier for the mother	377	97	My mother's negative experiences of labor	15	63
Lower risk of complications	250	64	The will to be delivered by a doctor	11	46
Being able to start breastfeeding in a shorter period	244	63	Healthier for the mother	10	42
The will to experience labor	105	27	Healthier for the baby	10	42
Increasing interest in normal delivery	95	25	Lower risk of complications	8	33
My mother's having a good experience of labor	76	20	Privacy	3	13
The fear of surgery	44	11			

***Multiple answers were given.**

Table 4. The Cronbach's Alpha Values of the Sub-Dimensions of the Scale

Stress Coping Styles Scale Sub-Dimensions	Cronbach's alpha
Self-Confident Approach	0.82
Optimistic Approach	0.73
Desperate Approach	0.76
Submissive Approach	0.60
Applying for the Social Support	0.62

Table 5. The relationship between the SCSS sub-dimensions and delivery preferences of the students

Delivery Preferences	Self-Confident Approach X±SD	Optimistic Approach X±SD	Desperate Approach X±SD	Submissive Approach X±SD	Applying for the Social Support X±SD
Normal delivery[a]	2.93±0.53	2.68±0.53	2.15±0.52	1.87±0.48	2.99±0.51
Cesarean[b]	2.82±0.49	2.40±0.59	2.50±0.60	1.94±0.45	2.95±0.63
Indecisive[c]	2.84±0.52	2.51±0.59	2.34±0.56	1.85±0.40	2.99±0.55
I do not want to give birth[d]	2.81±0.64	2.35±0.68	2.65±0.67	2.12±0.70	2.50±0.54
Total	2.90±.53	2.62±0.56	2.22±0.55	1.88±0.47	2.97±0.53
F*	1.223	5.525	9.801	1.629	4.227
p	0.301	0.001	0.000	0.182	0.006
		a>c	a<b,c,d		a,b,c>c

X=mean, SD=standard deviation, *ANOVA, analysis of variance

Discussion

Turkey, according to the OECD 2017 report, is in the first place in the world with the cesarean rate of 53% (OECD, 2017). It is an undeniable fact that reducing the cesarean rates in our country and promoting normal delivery will have benefits in terms of both the improvement of women's health and the reduction of national financial burden. Therefore, normal vaginal delivery supports are increasing throughout the country.

In some studies conducted in Turkey and abroad, it has been found out that females mostly prefer normal vaginal delivery (Sercekus, Cetişli and İnci, 2015; Gozukara and Eroglu, 2008; Yasar et al., 2007; Yee et al., 2015; Lee, Khang and Lee, 2004; Wu et al., 2014). The findings of the present study are similar to the results of other studies stating that vaginal delivery is preferred more. In accordance with these data, it can be thought that despite the high vaginal delivery preference of females, the rates of elective cesarean section, which is frequently shown among the causes of cesarean section, are not as high as previously assumed. In the study of Wu et al., it was found that the possibility of females with a stronger vaginal delivery preference to have a vaginal delivery is significantly higher (Wu et al., 2014). Furthermore, they found out that among females attempting to have a vaginal delivery, the vaginal delivery preference power predicts the final mode of delivery (Wu et al., 2014). Based on this, it can be thought that

females will have normal vaginal delivery by supporting and strengthening their vaginal delivery preferences.

In this study, the common preference of normal vaginal delivery due to the "easy and quick postpartum recovery" and the preference of cesarean section due to the "fear of labor pain" are similar to the results of other studies on this subject (Sercekus, Cetişli and İnci, 2015; Gozukara and Eroglu, 2008; Ergöl and Kurtuncu, 2014; Lee, Khang and Lee MS, 2004). Considering its effect on cesarean delivery preference, it may be estimated that controlling the fear of birth may increase normal vaginal delivery preferences.

It is known that delivery can be a stress factor for females and that the stress coping styles of females should be developed in order to reduce stress (Sahin and Durak, 1995; Ertekin et al., 2018). It was found out in this study that participants who had an "optimistic approach" and did not exhibit a "desperate approach" as the stress coping style preferred normal delivery. Ertekin et al. found that the "optimistic approach" scores of females increased as a result of the stress management training provided to pregnant women (Ertekin et al., 2018). Based on these findings, females can be provided with training to develop their stress coping styles to increase their vaginal delivery preferences, and it can be ensured that they use their preferences of the mode of delivery for vaginal delivery. Moreover, it can be estimated that this education support will also work in strengthening the delivery preferences of females.

Yousefzadeh et al. emphasize that vaginal delivery training can have a positive effect on the vaginal delivery orientation of pregnant women and may reduce the rate of elective cesarean section (Yousefzadeh et al., 2016). Furthermore, they suggested that pregnancy decision supports affecting the mode of delivery preferences should be given before or during the early pregnancy period in order to increase the opportunity of females to improve their knowledge, explain their personal values, and reduce the decision uncertainty (Yousefzadeh et al., 2016). Shorten and Shorten found pieces of striking evidence that the mode of delivery preferences changed significantly before and during pregnancy. However, they were not able to define the timing of when the preferences of females should be decided (Shorten and Shorten, 2014). As a result of this study, the researchers suggested that the mode of delivery preferences should be discussed with females early and that their uncertainties should be eliminated (Shorten and Shorten, 2014). The fact that this study was conducted with university students is important in that it shows us that support systems should be established to increase the vaginal delivery preferences and especially to acquire the indecisive ones. It also provides counseling opportunities to determine the mode of delivery of those who are indecisive in the delivery preference.

This study has some limitations. Since the study was conducted only at the faculty of health sciences and only female university students were included, it may not represent the target population. The delivery preferences of the study participants may change during pregnancy. Since no data could be collected about those who did not participate in the study, their characteristics are not known. The strong aspect of this study is that it is the first study that assesses the relationship between the stress coping styles and mode of delivery preference.

This study has presented the relationship between the stress coping styles and preferences mode of delivery of female university students.

Conclusions

As a conclusion, female students who have an optimistic approach and do not exhibit a desperate approach prefer normal delivery more. It is thought that the development of stress coping styles of females will contribute positively to the vaginal delivery preference.

Females should be informed about the preference of the mode of delivery. Females should be supported to make choices according to their informed preferences. Females should be supported to make their preferences for the mode of delivery consciously. The development of the positive attitude towards vaginal delivery should be aimed.

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