

Original Article

The Effect of Midwifery Students' Coping Styles and Moods on Childbirth Fear Prior to Pregnancy

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Abstract

Background: It is known that the positive attitude and support of midwives are significantly effective in the management of the fear of birth.

Objective: This study was carried out to determine the effect of midwifery students' coping styles and moods on childbirth fear prior to pregnancy.

Methodology: The sample of this descriptive-correlational study comprises 447 students, who study in Midwifery Departments of two state universities located in two different cities of Turkey and who agreed to participate in the research, between January-February 2019. Data were collected using the online surveys through Personal Information Form, Childbirth Fear-Prior to Pregnancy(CFPP), Positive and Negative Affect Schedule(PANAS), and the Coping Style Scale(CSS).

Results: Students' total mean scores of CFPP were 36.21 ± 11.34 . There was a negative significant relationship between childbirth fear prior to pregnancy and positive affect, one of the subscales of positive and negative affect schedule, and a positive significant relationship between negative affect subscale ($r = -.146$, $r = .199$; $p < .05$, respectively). There was a negative significant relationship between the Childbirth Fear Prior to Pregnancy and Self-confident coping style and Optimistic coping style subscales of the Coping Style Scale ($r = -.203$, $r = .143$, $p < .05$, respectively), and a positive significant relationship with the Helpless coping style and Submissive coping style subscales ($r = .266$, $r = .168$, $p < .05$, respectively). As a result of the regression analysis, it was found that the most important determinants of students' childbirth fear prior to pregnancy were self-confident coping style ($\beta = -.130$; $p = .043$) and helpless coping style ($\beta = .192$; $p = .001$).

Conclusion: It was found that there was a correlation between childbirth fear prior to pregnancy and positive and negative affect and coping styles (except for seeking of social support subscale). In regression analysis, it was determined that as self-confident behaviors increased and helpless/submissive behaviors decreased, childbirth fear might decrease.

Key Words: Childbirth Fear, Midwifery Students, Stress

Introduction

Fear is defined as anxiety or distress caused by anticipation or awareness of danger (Sahin, 2019). Individuals are stimulated when they experience fear and are motivated to act in response to this. In this respect, fear is one of the universal emotions experienced by everyone around the world, while it enables individuals to cope with stressful life events, it alerts the individual in case of danger and ensures that he/she takes the necessary precautions against danger (Oertwig, Riquelme, & Halberstadt, 2019).

Although women undergo pregnancy, childbirth, and postpartum periods without any complications, they may experience fear about these processes (Rodríguez-Almagro et al., 2019). Pregnancy is the time during which many women have different experiences, try to adapt to possible physical, social and psychological changes, and prepare for childbirth and their new roles in the postpartum period (Korukcu et al., 2017; Oertwig, Riquelme, & Halberstadt, 2019). Childbirth, also known as labor, on the other hand, is an unpredictable process with several unknowns, which cannot be completely controlled (Stoll et al., 2014). Childbirth fear, which can range from mild to severe enough to affect daily life events, affects the life of a woman starting from the prenatal period (O'Connell et al., 2017). Studies reveal that women, due to the childbirth fear, can avoid pregnancy, terminate the pregnancy even if gestation starts, and prefer cesarean delivery. In this type of childbirth fear, women enact the behavior of avoiding childbirth and think that even if they will die, even if they give birth (Alessandra, & Roberta, 2013; O'Connell et al., 2017).

Childbirth fear is affected by various factors including biological, psychological, social, or secondary. Uncertainty regarding the process, labor pain, previous traumatic labor experience, personality structure, lack of social support, presence of previous psychological disorders, and readiness for parenting are among the factors affecting the childbirth fear (Nilsson et al., 2018; Irmak Vural, & Aslan, 2019; Oertwig, Riquelme, & Halberstadt, 2019). Studies have shown that childbirth fear is more common in women with sensitive, low self-esteem, neurotic personality types, who experience depression and anxiety, and who have inadequate skills in coping with

stress (Saisto et al., 2001; Jespersen, et al. 2014; Barut, & Ucar, 2018; Oertwig, Riquelme, & Halberstadt, 2019). Stress is a state of mental or emotional tension resulting from the fact that an individual's physical or mental limits are threatened or pushed (Ozel, & Bay Karabulut, 2018). The entire behavior or emotional reactions displayed to reduce, eliminate, or deal with emotional tension triggered by stressors is defined as coping with stress. Stress is a situation that must be coped with. If an individual failed in coping strategies, psychological deterioration of health, as well as the occurrence of pathological symptoms, becomes inevitable (Avsaroglu, & Idayeva, 2019). A woman who has the strength to deal with childbirth stress will tend to find this experience too positive and will not experience fear.

One of the factors that affect and trigger the childbirth fear is the mood of the woman (Rondung, Thomtén, & Sundin, 2016). Studies have revealed that a woman who experiences childbirth fear becomes introverted, does not communicate with anyone, and suffers alone, and can describe her emotions in different ways, such as anxiety, tension, panic, desire to escape, being terrified, upset, depression, and paranoia (Ozturk, 2014). Besides, having negative feelings about childbirth, worrying that she or her baby will be harmed, thought to experience loss of control, and distrust medical staff will trigger childbirth fear (Ucar, & Tashan Timur, 2018).

Students who receive midwifery and midwifery training in childbirth preparation classes or clinics, who are in constant interaction with women, can help women to reduce their fears of birth, eliminate negative perceptions, and improve their positive perceptions about normal birth (Ucar, & Tashan Timur, 2018). For this reason, it is thought that it is important to reduce their own birth fears and improve their positive perceptions about normal birth by informing young midwife candidates with accurate, sufficient and evidence-based information (Gulec Satir, 2020). Students who graduate with positive perceptions of birth can enable women to have a positive birth perception, control their behavior and feel positive emotions, increase their self-confidence, and improve the birth process and results positively with their midwife identity after graduation (Karacam, & Akyuz, 2011; Gulec Satir, 2020). However, they can prepare pregnant women for the normal vaginal delivery process

by reducing their birth fears. Thus, they will be able to contribute to the reduction of optional cesarean rates. In this study, it was aimed to examine the effect of midwifery students' coping styles and moods on childbirth fear prior to pregnancy. In this direction, it is aimed to take initiatives to change negative perceptions.

Method: This descriptive-correlational study was carried out with female students studying in Midwifery Departments of two universities located in the eastern region of Turkey between January-February 2019. There are 550 students in total in the Midwifery Departments of these universities in question. In the study, it was aimed to reach all students without sample selection. The sample consists of 447 volunteer students who agreed to participate in the study.

Data Collection Tools: Data were collected using "Personal Information Form", "Childbirth Fear-Prior to Pregnancy (CFPP)", "Positive and Negative Affect Schedule (PANAS)" and "Coping Style Scale (CSS)".

Personal Information Form: This form that was created by the researchers in line with the literature consists of questions investigating the students' sociodemographic characteristics (age, grade, family type, marital status, education level of parents, etc.) and some of their descriptive characteristics (presence of partner/dating, having a childbirth lesson, watching childbirth and childbirth preference) (Zubaroglu Yanardag, 2017; Ucar, & Tashan Timur, 2018).

Childbirth Fear-Prior to Pregnancy (CFPP): Its Turkish validity and reliability study was performed by Uçar ve Timur Taşhan (2017). Each items of this 10-item scale focuses on measuring fear of childbirth among women before pregnancy. Each item of this Likert-type scale is scored from 1 (strongly agree) to 6 (strongly disagree). This scale has no cutoff point and the total score ranges from 10 to 60. A high score indicates an increased fear of birth (Ucar, & Tashan Timur, 2018). The Cronbach's alpha reliability coefficient of the scale was found as .89. In this study, the Cronbach's alpha reliability coefficient of the scale was found as .91.

Positive and Negative Affect Schedule (PANAS): Its Turkish validity and reliability study was performed by Gençöz (2000). The scale, which has a total of 20 items, has a sub-dimension named Positive Emotion and Negative Emotion. The Positive Affect subscale measures the extent to which a person feels interested, active, and alert. Negative Affect subscale

measures the extent to which a person feels subjective distress such as anger, disgust, guilty, and fear. Each item of this 5-point Likert-type scale is scored between 1 to 5, where 1= Very slightly or not at all, and 5= Extremely. It has no cutoff point and score that can be obtained from each subscale of the scale ranges from 10 to 50. High scores indicate an increased level of positive or negative affect. The Cronbach's alpha coefficients of the positive and negative affect subscales are .86 and .83, respectively (Gençöz, 2000). In this study, the Cronbach's alpha coefficient of both subscales were found to be .80.

Coping Style Scale (CSS): Its Turkish validity and reliability study was performed by Şahin and Durak (1995). Each item of this 30-item scale focuses on measuring the coping styles of individuals. This scale has grouped into five subscales: optimistic coping style scale, self-confident coping style scale, helpless coping style scale, submissive coping style scale, and seeking of social support scale. The subscales named self-confident coping style, optimistic coping style, and seeking of social support indicate effective coping styles, while the subscales named helpless coping style and submissive coping style reveal ineffective coping styles. The scores of this Likert-type scale ranges between 0-3 points, where the higher the scores, the more the person uses that style. The total score ranges between 0 at least and 90 at most. The minimum/maximum scores to be obtained from the subscales 'self-confident', 'optimistic', 'seeking of social support', 'helpless', and 'submissive' coping styles are: 7/28; 5/20; 4/16; 8/32; 6/24, respectively. The Cronbach's alpha coefficients ranges from .45 to .80 (Sahin, & Durak, 1995). In this study, the Cronbach's alpha coefficient was found between .43 and .77.

Data Collection: Research data were collected from students who studied at the relevant universities and agreed to participate in the research. Online questionnaires prepared via Google Forms were sent to students via their social media accounts (WhatsApp student groups) and they were asked to fill out these questionnaires.

Data Analysis: SPSS 25.0 for Windows software (SPSS, Chicago, IL, USA) was used for statistical analysis of the obtained data. In statistical analysis, descriptive statistics were given as number, percentage, mean and standard deviation. The correlation between the scales was

analyzed by the Pearson correlation analysis. Multiple linear regression analysis was performed to examine the variables affecting the childbirth fear. The significance level was evaluated as $p < .05$.

Ethics Consideration: Prior to the study, written permission was obtained from the institutions in which the study was conducted, and ethical approval was obtained from the Scientific Research and Publication Ethics Committee of the Malatya Inonu University of Health Sciences in Turkey.

Ethical Approval: Ethical approval was obtained from the Committee on Publication Ethics, Faculty of Health Sciences of XXXX University. Prior to the research, institutional permissions were obtained from the relevant universities. At the beginning of the survey questions, students were informed about the purpose of the research and students who volunteered were asked to fill out questionnaires.

Results

Table 1 shows the students' descriptive characteristics. The mean age of the students was 20.60 ± 1.99 . Of the students, 29.10% were 1st-grade students of the Midwifery Department, 98.40% single, 64.70% have an equal income-expense, 66.20% reside in the province, and 79.40% have a nuclear family type. 56.60% of the students stated that they stay at dorm. The educational level of the mother and father of the students was primary school with 42.30% and 34.90%, respectively. Of the students, 61.10% of

them took the childbirth course, 76.10% watched a childbirth video before, 77.40% did not assist at childbirth before, and 75.8% prefer a vaginal delivery in the future. (Table 1) Table 2 shows the distribution of students' total mean scores of CFPP, PANAS and CSS subscales by their grade levels. Students' total mean scores of CFPP were 36.21 ± 11.34 , while their mean scores of positive and negative affect schedule subscales were 29.71 ± 7.26 and 25.14 ± 7.72 , respectively, and their total mean scores obtained from the Coping Style Scale in the Self-confident coping style, Helpless coping style, Submissive coping style, Optimistic coping style, and Seeking of social support were 13.04 ± 3.93 , 10.52 ± 4.18 , 6.64 ± 3.38 , 8.26 ± 2.99 and 7.06 ± 2.06 , respectively. (Table 2). Table 3 shows the correlation between students' PANAS and CSS subscales scores and CFPP scores. There was a negative significant relationship ($r = -.146$, $p < .05$) between childbirth fear prior to pregnancy and positive affect, one of the subscales of positive and negative affect schedule, and a positive significant relationship ($r = .199$, $p < .05$) between negative affect subscale. (Table 3)

There was a negative significant relationship between the Childbirth Fear Prior to Pregnancy and Self-confident coping style and Optimistic coping style subscales of the Coping Style Scale ($r = -.203$, $r = -.143$, $p < .05$, respectively), and a positive significant relationship with the Helpless coping style and Submissive coping style subscales ($r = .266$, $r = .168$, $p < .05$, respectively).

Table 1. Distribution of Students' Descriptive Characteristics (n=447)

Variables	n	%
Age (years) (Mean±SD)	20.60 ± 1.99	
Marital Atatus		
Single	440	98.4
Married	7	1.6
Class		
Midwifery 1	130	29.1
Midwifery 2	117	26.2
Midwifery 3	113	25.2
Midwifery 4	87	19.5
Place of Residence		

Province	296	66.2
Town	101	22.6
Village	50	11.2
Place of stay		
Family	160	35.8
Dorm	253	56.6
Friend	29	6.5
Relative	5	1.1
Family type		
Nuclear family	355	79.4
Extended family	82	18.3
Broken family	10	2.2
Education level of the mother		
Illiterate	96	21.5
Literate	40	8.9
Primary education graduate	189	42.3
Secondary education graduate	61	13.6
High school graduate	48	10.7
University	13	2.9
Employment Status of the Mother		
Employed	45	10.1
Unemployed	402	89.9
Education level of the Father		
Illiterate	22	4.9
Literate	21	4.7
Primary education graduate	156	34.9
Secondary education graduate	76	17.0
High school graduate	125	28.0
University	47	10.5
Employment Status of the Father		
Employed	321	71.8
Unemployed	126	28.2
Income Status		
Less than my revenues	61	13.6
The revenue is equal to the expense	289	64.7
More than my revenue	97	21.7
Partner/Flört		
Yes	140	31.3
No	307	68.7
Birth lesson / training status		
Yes	273	61.1
No	174	38.9
Future Birth Preference		

Normal birth	339	75.8
Cesarean birth	29	6.5
I am indecisive	79	17.7
Monitoring of labor		
Yes	370	76.1
No	107	23.9
Giving birth		
Yes	101	22.6
No	346	77.4

SD: Standard deviation

Table 2. Distribution of the students' mean scores in CFPP, PANAS and CSS sub-dimensions by classes (n=447)

	Midwifery 1 (n=130) (Mean±SD)	Midwifery 2 (n=117) (Mean±SD)	Midwifery 3 (n=113) (Mean±SD)	Midwifery 4 (n=87) (Mean±SD)	Total (n=447) (Mean±SD)
CFPP total score	34.11±11.40	38.39±10.13	35.60±11.94	37.20±11.53	36.21±11.34
Positive emotion	30.50±7.14	28.87±7.66	30.78±7.64	28.27±6.00	29.71± 7.26
Negative emotion	25.40±7.79	24.58±7.43	26.00±7.94	24.41±7.71	25.14±7.72
Confident approach	13.92±3.85	12.16±3.99	12.51±4.02	13.60±3.50	13.04 ±3.93
Desperate approach	10.64±4.10	10.47±4.45	10.92±4.13	9.89±3.96	10.52 ±4.18
Submissive approach	6.06±3.07	6.94±3.29	6.98±3.64	6.66±3.55	6.64± 3.38
Optimistic approach	8.46±2.92	7.96±3.08	8.06±3.07	8.63±2.87	8.26 ±2.99
Social support approach	7.26±1.91	7.06±2.42	6.84±1.97	7.05±1.86	7.06± 2.06

CFPP: Childbirth Fear - Prior to Pregnancy , PANAS: Positive and Negative Affect Schedule, CSS: Coping Style Scale, SD: Standard deviation

Table 3. Relationship between students' PANAS sub-dimensions and CSS sub-dimensions scores and their CFPP scores (n=447)

	CFPP total score
Positive emotion	
r	-0.146
p	0.002
Negative emotion	
r	0.199
p	0.001

Self-confidence	
r	-0.203
p	0.001
Desperate approach	
r	0.266
p	0.001
Submissive	
r	0.168
p	0.001
Optimistic	
r	-0.143
p	0.002
Social support	
r	-0.068
p	0.154

Table 4. Linear regression model of students' pre-pregnancy fear of birth, mood and coping styles

	<i>B</i>	SE	β	<i>t</i>	<i>p</i>	
Positive emotion	-0.126	0.078	-0.081	-1.628	0.104	
Negative emotion	0.125	0.074	0.085	1.696	0.091	
Confident approach	-0.374	0.184	-0.130	-2.033	0.043	R²=0.121
Desperate approach	0.522	0.151	0.192	3.467	0.001	
Submissive approach	0.197	0.183	0.059	1.076	0.282	F=8.596
Optimistic approach	-0.150	0.232	-0.040	-0.649	0.517	
Social support calls	0.112	0.260	0.020	0.431	0.666	p=0.001

B: unstandardized coefficient of regression; SE: standard error; β = standardized coefficient of regression; R²: coefficient of determination

Table 4 shows the linear regression model regarding the students' childbirth fear prior to pregnancy and their moods and coping styles. As a result of the regression analysis performed to determine the effect of coping styles and moods of midwifery students on childbirth fear prior to pregnancy, it was found that self-confident coping style ($\beta=-.130$; $p=.043$) and helpless coping style ($\beta=.192$; $p=.001$) were the most important determinants of students' childbirth

fear prior to pregnancy. Students' coping styles and moods explain 0.121% of the change in childbirth fear prior to pregnancy. (Table 4)

Discussion

In this section, the results of the study conducted to determine the effect of midwifery students' coping styles and moods on childbirth fear prior to pregnancy were discussed with the relevant literature. In this study, when the childbirth fear

levels of students were examined, total mean scores of CFPP were found to be as 36.21 ± 11.34 (Table 2). Considering the lowest and highest scores (min-max=10-60) that can be obtained from the scale, this finding can be interpreted as the students have moderate childbirth fear. When the studies conducted in Turkey were examined, there was no study investigating childbirth fear of young girls (Sahin, Dinc, & Dissiz, 2009; Barut, & Ucar, 2018). Examining other studies carried out, contrary to our findings, it was found that pregnant women experienced severe childbirth fear.

It can be said that the reason for the divergence between young girls and pregnant women in terms of childbirth fear is the occurrence of pregnancy. Examining the studies carried out with non-pregnant students; in the study conducted with students living in Canada, it was found that the students had a high level of childbirth fear and therefore they would prefer cesarean delivery and epidural anesthesia (Stoll et al., 2014). In another study, it was found that students living in the United States experience childbirth fear more than students living in England, Germany, Ireland and Australia (Stoll et al., 2016). These findings show that childbirth fear is affected by the cultural structure.

In this study, students' total mean scores regarding the positive and negative affect schedule subscales were found to be as 29.71 ± 7.26 and 25.14 ± 7.72 , respectively (Table 2). This finding shows that students have higher levels of positive emotions. When the literature is examined, similarly, it was observed that female students have higher levels of positive emotions (Topal, 2011; Zubaroglu Yanardag, 2017). Individuals with high positive moods are relatively satisfied with their lives, safe and self-satisfied (Topal, 2011).

In this study, students' total mean scores of the Coping Style Scale in the subscales self-confident coping style, helpless coping style, submissive coping style, optimistic coping style and seeking of social support were found to be as 13.04 ± 3.93 , 10.52 ± 4.18 , 6.64 ± 3.38 , 8.26 ± 2.99 and 7.06 ± 2.06 , respectively (Table 2). It was determined that students, in terms of coping with stress, were self-confident, optimistic, and seeking social support, in other words, they were found to use effective methods for coping styles. When the literature is examined, in studies conducted to determine students' coping styles, it

was identified that similar results were obtained with our findings (Deniz, & Yilmaz, 2006; Parmaksiz, 2011; Kelleci et al. 2012; Hancioglu, 2017).

In this study, there was a negative significant relationship between students' childbirth fear prior to pregnancy and the positive affect subscale, one of the subscales of positive and negative affect schedule, and a positive significant relationship with the negative affect subscale ($r = -.146$, $r = .199$; $p < .05$, respectively) (Table 3). This finding shows that as students' positive moods increase, their childbirth fear decreases, and as the negative moods increase, their childbirth fear increases. Accordingly, it is an expected situation that individuals with high levels of positive mood have lower childbirth fear, while individuals with high levels of negative moods have higher childbirth fear levels.

In this study, there was a negative significant relationship ($r = -.203$, $r = -.143$; $p < .05$, respectively) between childbirth fear prior to pregnancy and self-confident and optimistic coping style subscales, one of the subscales of coping style scale (Table 3). This finding shows that as students' self-confidence and optimistic approaches increase, their childbirth fear levels decrease. When the studies conducted are examined, providing training, information, and adequate/effective prenatal care services to women about childbirth has been found to reduce childbirth fear and make women feel better (Subası et al., 2013; Cicek, & Mete, 2015; Korukcu et al., 2017). While this training and care given to women by midwives increase the self-confidence of women in childbirth, they provide women to show optimistic behavior and prevent them from experiencing childbirth fear.

In this study, there was a positive significant relationship between students' childbirth fear prior to pregnancy and helpless and submissive coping style subscales of the coping style scale ($r = .266$, $r = .168$, $p < .001$, respectively) (Table 3). This finding shows that as students' helpless and submissive coping styles increase, their childbirth fear also increases. In the literature, it was reported that students use ineffective methods, in the form of a helpless and submissive approach, against stressful situations like childbirth (Savci, & Aysan, 2014; Hancioglu, 2017). Therefore, the finding that the helpless and submissive approach

used in coping styles with stress increases childbirth fear is an expected result.

In this study, as a result of the regression analysis conducted to determine the effect of midwifery students' coping styles and moods childbirth fear prior to pregnancy, the most important determinants of students' childbirth fear prior to pregnancy were found to be self-confident coping style ($\beta=-.130$; $p=.043$) and helpless coping style ($\beta=.192$; $p=.001$) (Table 4). It was found that students' coping styles and moods explain 0.121% of the change in childbirth fear prior to pregnancy (Table 4). It is possible to interpret that those who show a self-confident coping style (one of the coping styles) and the non-helpless approach cope better with psychological situations such as fear. The findings obtained in this study were also confirmed by the results of the regression analysis.

Study Limitations: When we examine the literature, there is no study conducted with the effect of coping styles and moods in midwifery students on childbirth fear prior to pregnancy. This is the strength of the research. However, research is limited to two universities in the east of Turkey Midwifery therefore generalizations can be made. In addition, this study was collected online due to the pandemic.

Conclusion and Recommendations: According to the results obtained from this study; the following points were determined: students experience moderate childbirth fear; as the levels of self-confident coping style, optimistic coping style, and seeking of social support increased, childbirth fear decreased; and as the helpless approach and submissive approach levels increased, the levels of childbirth fear increased. In addition, it was found that the most important determinants of the childbirth fear were self-confident coping style and non-helpless coping style. In line with these findings, midwifery students, who will take active roles and responsibilities in childbirth in the future, should be ensured to develop themselves in coping styles and to set their moods by childbirth's nature. Training on this subject should be provided and positive guidance should be provided.

Acknowledgments

We would like to thank the midwifery students who participated in and completed this questionnaire.

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