JBACHS
Journal of Basic and Clinical Health Sciences

J Basic Clin Health Sci 2021; 2: 83-93
https://doi.org/10.30621/jbachs.899477
RESEARCH ARTICLE

THE RELATIONSHIP BETWEEN PREGNANT WOMEN' EMOTIONAL INTELLIGENCE AND FEAR OF CHILDBIRTH, READİNESS FOR CHILDBIRTH AND WAYS OF COPING WITH STRESS

Seda Ozer[1], Zumrut Yilar Erkek[2]

[1] Gaziosmanpaşa University, Institute of Health Science, Midwifery Department, Tokat, 60250-Turkey
[2] Gaziosmanpaşa University, Faculty of Health Sciences, Midwifery Department, Tokat, 60250-Turkey

Address for Correspondence: Assist. Prof Zumrut Yilar Erkek, **E-mail:** zyilar@hotmail.com
Received: 18.03.2021; **Accepted:** 14.04.2021; **Available Online Date:** 27.05.2021

Cite this article as: Ozer S, Yilar Erkek Z. The Relationship Between Pregnant Women' Emotional Intelligence and Fear of Childbirth, Readiness For Childbirth and Ways of Coping with Stress. J Basic Clin Health Sci 2021; 2: 83-93.

ABSTRACT

Aim: This study was carried out to determine the relationship between pregnant women's emotional intelligence (EI) , Fear of Labor (FOC), Readiness for Labor (RFC), and ways of overcoming the stress.
Material and Method: The research is descriptive-correlational. The study was carried out with 665 pregnant women who were in the third trimester and admitted to the obstetrics and gynecology clinics in Nothern Turkey. The data were collected using the Personal Information Form, Emotional Intelligence Assessment Scale (EIAS), Prenatal Self-Evaluation Questionnaire (PSEQ) and Ways of Coping Checklist (WCCL). Percentage, mean ± standard deviation and median, Kolmogorov Smirnov test, Pearson Correlation and Multiple Regression analysis were used to analyze the data.
Results: In the study, the pregnant women's emotional intelligence (EI) score average was 126.30±28, the RFC average was 29.25±4.77 and the FOC average was 27.46±4.58. Self-Confident Approach, Optimistic Approach and Finding Social Support dimensions of the Stress Coping Styles Scale in Pregnant Women were found to be above the average score, and the Desperate Approach and Submissive Approach dimensions scores were below the average score. It was determined that there was a weakly significant positive correlation between the total EI scores of the pregnant women and the mean scores of RFC, FOC and coping with stress ($p < 0.001$, $r = 0.283$), ($p < 0.001$, $r = 0.355$), ($p < 0.001$, $r = 0.317$).
Conclusion: It was determined that there was a weakly significant positive correlation between the total EI scores of the pregnant women and the mean scores of RFC, FOC and overcoming the stress styles. In this respect, it was concluded that the emotional intelligence levels of pregnant women need to be improved, their RFC and their FOC are low, and that they display a partially effective attitude in their coping style with stress.
Keywords: Fear of labor, readiness for labor, emotional intelligence, midwife, overcoming stress

INTRODUCTION

Emotional intelligence (EI) is a result of the mutual interaction between emotions and intelligence and it is closely related to the ability to be aware of own and others' feelings, the ability to distinguish them, and the ability to use this knowledge in practice. Therefore, emotional intelligence is vital in every period of human life (1). EI is effective in overcoming the fear and stress of Labor, especially in the birth

process, which has important effects on the lives of women. In the study where Airo et al. (2018) (2) organized a training that supports EI such as lifelong motivation, mind-body communication and affirmation for pregnant women with severe Fear of Labor (FOC), it has been observed that there is a decrease in negative thoughts of birth from the first education in pregnant women and there are positive changes in coping with these negative thoughts behavior and adaptation to new life from fourth day. When similar studies in the literature has been examined (3-6) it has been determined that EI has a positive effect on controlling the FOC and stress, positively affects prenatal attachment, and contributes to positive labor experiences without complications.

The fear and stress of labor are expected conditions at labor. However, they cause a decrease in the pain tolerance of women, inability to exert their strength during labor, prolonged labor and an increase in cesarean rates when it cannot be brought under control (7-12). In order to prevent such complications, EI levels are effective for pregnant women to put their fears aside during pregnancy and labor, to cope with stress, and to recognize and overcome negative emotions related to labor. In the literature, it has been observed that the care given in the dimension of empathy based on increasing the level of EI has positive effects on labor (decrease in labor stress and fear, increase in coping with labor pain and birth control power, increase in maternal satisfaction and positive birth stories) and the mother (early breastfeeding, accelerated maternity adjustment, pospartum depression decrease, a decrease in cesarean rates) (13-17).

Pregnant women with high EI are more successful in discovering the emotions they feel, resolving all the fear and anxiety in them, and approaching the birth of their baby with confidence and safety (8). Pregnant women with high EI have a positive birth experience, since their birth process proceeds normally, without any complications. During this period, midwives also have many duties. Because midwives are the most important health personal who provide birth support to pregnant women during the birth process, and birth support is a support system that includes the components of emotional intelligence. In line with the EI components of the woman in the birth process, providing active assistance to them, meeting the needs of them in terms of emotional intelligence, providing their comfort, increasing their self-esteem, ensuring a positive birth experience, and assisting them in the adaptation to motherhood are among the primary duties of midwives (18-20).

Figure 1. Score Intervals on the subdimensions of the EIAS

Sub-dimensions	Low	Normal	High
self-awareness	25 and below	26 - 30	31 and above
self-management	26 and below	27 - 31	32 and above
self-motivation	26 and below	27 - 30	31 and above
empathy	25 and below	26 - 30	31 and above
social awareness	24 and below	25 - 29	30 and above
Total Score	129 and below	130 - 154	155 and above

High EI levels during the birth process can help pregnant women to manage their fear and stress of labor and transform these negative feelings into positive behaviors. Thus, mothers have uncomplicated and noninvasive positive birth experiences and peaceful and untroubled mother-infant communication. In this sense, it is thought that the study will be important in reaching healthy mothers and babies with non-intervention births by determining the effect of EI on FOC, Readiness for Labor (RFC) and coping with stress.

Midwives can increase the problem-solving abilities of pregnant women with their support in solving the problems that may arise during pregnancy and delivery and using their EI while performing care aimed at preventing fear and stress during pregnancy, labor and postpartum (21). In the study of Çapık et al. (2016) (4), the conclusion that as the EI levels of pregnant women increase, their health applications scores also increase, which supports this information. In this direction, it is thought that the study will increase the awareness of midwives that they can help women to reach the desired level of healthy life practices by contributing to their awareness of their own emotions, managing their emotions and developing their EI skills.

The fact that pregnant women in our country have a lot of fears and anxieties (22-24), the increase in cesarean rates due to this (25-28), and the mothers' not being at the desired level of birth satisfaction (13,27) are another factors that reveal the necessity of this study. In addition, in the literature reviews, no study with the same content and purpose as this study has yet been encountered. Therefore, this study can shedding light on future studies. In addition, there is no study in the literature evaluating that EI affects the RFC. For this reason, this study is

thought to be important in terms of providing data for this gap.

The aim of this study is to determine the relationship between the EI of pregnant women and their FOC, their RFC, and their coping style with stress.

Hypotheses: H0: "There is no relationship between the EI of pregnant women, their fear of birth, readiness for childbirth, and their ways of overcoming stress. "H1: "There is a relationship between pregnant women's emotional intelligence, fear of childbirth, readiness for childbirth, and ways of coping with stress."

consisted of 1217 pregnant women who admitted to obstetrics outpatient clinics between 01 November 2018 and 01 November 2019 the period of collecting the data. 665 pregnant women who met the inclusion criteria, were in their third trimester and willing to participate were included in the study.

Pregnant women who did not meet the research criteria (326), refused to participate in the study (205), and gave contradictory answers (leaving the scale questions blank, giving the same answers to all item) to the questionnaire questions (21) were not included in the study.

Table 1. Distribution of socio-demographic characteristics of the pregnant women (n=665)

Characteristics (n:665)		X± SD	Min-Max
	Age (Years)	27.55±5.30	19.00-43.00
	Gestational mean week	35.54±3.34	25.00 – 42.00
		n	%
Educational level	Primary school	322	48.5
	High school	247	37.1
	University or above	96	14.4
Employment status	Employed	184	27.7
	Unemployed	481	72.3
Marital status	Married	652	98.0
	Divorced	13	2.0
Spousal educational level	Primary school	238	35.9
	High school	298	44.8
	University or above	129	19.3
Spousal employment status	Employed	606	91.1
	Unemployed	59	8.9
Health insurance	Yes	86	12.9
	No	579	87.1
Residence	City	312	46.9
	District	172	25.9
	Village	181	27.2
Financial status	Income<expenditure	178	26.8
	Income=expenditure	419	63.0
	Income>expenditure	68	10.2
Family type	Nuclear family	513	77.1
	Extended family	152	22.9

MATERIAL AND METHOD

Design, Participants and Method

This study which is descriptive and correlational was conducted in the obstetrics and gynecology clinics of a province public hospital and a district public hospital in Nothern Turkey. We chose these hospitals because they were main hospitals providing maternity service in the province, case transfers were made from other centers to them, and their patient intensities were high. The population of the study

At the end of the study, according to the post hoc analysis using the correlation coefficient, the power of the test was 100% with 5% error, 0.5477226 effect size and 665 sample size.

Inclusion Criteria: It was ensured that the pregnant women included in the sampling were literate, did not have a psychiatric diagnosis, were pregnant with low risk (having no complication of pregnancy at the time of the study or in the past, having no maternal medical

Table 2. Distribution of the mean scores and score intervals of the pregnant women on the EIAS (N=665)

Subscales of EIAS	X± SD	Min.	Max.	Low		Normal		High	
				n	%	n	%	n	%
SAW	26.16±6.93	6	36	282	42.4	180	27.1	203	30.5
SMA	25.02±6.09	6	36	370	55.6	210	31.6	85	12.8
SMO	24.88±6.93	6	36	370	55.6	144	21.7	151	22.7
E	25.60±6.84	6	36	316	47.5	167	25.1	182	27.4
SOW	24.64±6.51	6	36	314	47.2	174	26.2	177	26.6
Total Score	126.30±28.97	30	180	351	52.8	189	28.4	125	18.8

Data were shown as Mean±SD
EIAS:Emotional Intelligence Assessment Scale
SAW:Self-awareness
SMA:Self-management
SMO:Self-motivation
E:Empathy
SOW:Social Awareness

disease, having no previous maternal morbidity or history of mortality, having adequate fetal growth and normal results in terms of laboratory and screening tests throughout the pregnancy) and were in the third trimester of pregnancy.

Instruments

The Personal Information Form, EI Assessment Scale (EIAS), Prenatal Self-Evaluation Questionnaire (PSEQ), and Ways of Coping Checklist (WCCL) were used to collect the data.

Personal Information Form

The Personal Information Form which was developed by the researchers based on the literature (4,6,12,29) and expert opinions consists of questions on socio-demographic characteristics such as age, education, marital status and pregnancy, and obstetric history. The form consists of 13 items.

Emotional Intelligence Assessment Scale (EIAS)

The EIAS was developed by Hall in 1999 to measure emotional intelligence. It's Turkish validity and reliability study was conducted by Ergin (30) (2000) and they found Cronbach's alpha value is 0.84. We found Cronbach's alpha value as 0.94. The scale (likert type) consists of 30 items and 5 sub-dimensions as self-awareness (SAW), self-management (SMA), self-motivation (SMO), empathy (E), and social awareness (SOW). There is no reverse-scored item. The obtainable lowest total score on the scale is 30 while the highest possible total score on it is 180. The scores of 155 points and above on the whole EIAS are evaluated as high (very strong), the scores range between 130-150 points are evaluated as normal (need to be improved a little), and the scores of 129 and below are evaluated as low (needs to be improved) EI level. High scores on the scale indicate that the levels of EI are high (6,31-34). **Figure 1.(6,35)**

Prenatal Self-Evaluation Questionnaire (PSEQ)

The PSEQ developed by Lederman in 1979 is a measurement tool used to evaluate pregnancy and maternity compliance of pregnant women. The validity and reliability study of the scale in Turkish was performed by Beydağ et al. (36) (2008). The scale consists of 7 sub-dimensions and 79 items in total.(19,20) In this study, the 10-item sub-dimension of RFC and the 10-item sub-dimension of FOC were used. In their study, the Cronbach's alpha values for the sub-dimensions of RFC and FOC were calculated as 0.72 and 0.84, respectively. In our study, the Cronbach's alpha values were calculated as 0.73 and 0.51 for the sub-dimensions of RFC and FOC, respectively. Each item in both subscales is measured by a 4-degree evaluation. Scale items are evaluated based on the results of the scores ranging from 1 to 4 (4: Defines too much, 3: Partially defines, 2: Slightly defines, 1: Not define). In reverse-scored (7, 8, 11, 15, 18, 24, 25, 26, 38, 47, 48, 49, 53, 56, 72) items, scoring is done oppositely. The obtainable lowest score is 10 points while the obtainable highest score is 40 points on both the subdimensions of RFC and FOC. As the scores on the sub-dimensions increase, the FOC increases while the RFC decreases (36).

Ways of Coping Checklist (WCCL):

The scale developed by Folkman and Lazarus in 1980 (Ways of Coping Inventory) to identify the ways to cope with stress. The Turkish validity and reliability study of the scale was performed by Şahin and Durak (1995) (37). The scale consists of 30 items and 5 sub-dimensions as Self-Confident Approach (SCA), Optimistic Approach (OA), Seeking Social Support (SSS), Helplessness (H), Submissiveness (S). The Cronbach's alpha value of the scale was found to be 0.76. In our study, Cronbach's alpha value was determined as 0.78.

In the subscales, the aforementioned coefficient is 0.81 for SCA, 0.72 for OA, 0.77 for H, 0.69 for S and 0.47 for SSS subtest. The Cronbach alpha values of the sub-dimensions of this study are SCA 0.79; OA 0.63; H 0.72; S 0.69; SSS 0.49 respectively.

There is not a total score on the whole scale and each sub-dimension of this scale is scored separately and evaluated with its score. The scores on the subscales are obtained by scoring the answers given to each factor from 0 to 3 ("0": totally inappropriate; "1": inappropriate; "2": appropriate; "3": totally appropriate). The lowest and highest scores on the sub-dimensions of SCA, OA, H, S, and SSS are 7-28, 5-20, 8-32, 6-24, and 4-16, respectively. It has been stated that as the scores on the SCA, OA, and SSS factors increase, the way of coping with stress is more effective, however, higher scores on the H and S indicate that ineffective methods are used to cope with stress (37,38).

Ethical considerations

Before the study, the ethical committee approval (No: 18-KAEK-233) was obtained from the Ethics Committee of Non-Interventional Studies of Gaziosmanpaşa University while the required institutional permissions were obtained from the institutions where the study was conducted. Verbal and written informed consent was obtained from the participants. The study was carried out in accordance with the ethical principles of Informed Consent, Confidentiality, Privacy Protection, and Respect for Persons/Autonomy and the Helsinki Declaration. The required permissions were also obtained from the researchers who conducted the Turkish validity reliability studies of the scales used.

Data collection

The data were collected by the researchers using the face-to-face interview method with the mothers (n: 665) who agreed to participate in the study between 01 November 2018 and 01 November 2019. The pregnant women were informed about the purpose of the study and how they fill in the questionnaire. The application of the questionnaires was carried out in an empty room, in a quiet environment, in the section where the maternity polyclinics were located. It took a total of 20 minutes to fill the questionnaires. A pilot study was conducted with 10 pregnant women in order to check the comprehensibility of the questionnaire questions.

Data analysis

The descriptive analyzes were conducted to obtain information about the general characteristics of the groups. The data were shown as Mean±Standard Deviation for continuous variables. The conformity of the distribution of the data to the normal distribution was tested by examining the skewness and kurtosis values with the Kolmogorov Smirnov test. In addition, the relationship between quantitative values was evaluated with Pearson Correlation Analysis and the relationship between dependent and independent variables was evaluated with Multiple Regression Analysis. p values which were below 0.05, were considered as statistically significant. In the calculations, SPSS statistical software was used (IBM SPSS Statistics 19, SPSS inc., An IBM Co., Somers, NY).

RESULTS

The mean age of the pregnant women was 27.55±5.30, gestational mean week 35.54±3.34, nearly half of them were primary school graduates (48.5%) and living in the city (46.9%). The majority of them were unemployed (72.3%), married (98.0%). Most of them had health insurance (87.1%), equal income and expenses (63.0%), a nuclear family (77.1%). 44.8% of them had spouses who were high school graduates, and 91.1% of their spouses were employed (**Table 1**).

In table 2, the distribution of the mean scores and score intervals of pregnant women on the subscales of the EIAS is given. The mean score of them on the whole EIAS was 126.30±28.97 and 52.8% of the pregnant women were in the low score interval and therefore they needed to improve their EI level. Their mean scores on the sub-dimensions were as follows (from highest to lowest). SAW: 26.16±6.93, SMA: 25.02±6.09, SMO: 24.88±6.93, E: 25.60±6.84, SOW: 24.64±6.51 (**Table 2**).

In table 3, the mean score of the pregnant women on the RFC was 29.25±4.77, and their mean score on the FOC was 27.46±4.58. The mean scores of them on the subdimensions of the WCCL were as follows. SCA: 19.90±4.98, OA 13.62±3.48, H: 17.73±5.99, S: 12.53±4.98, SSS: 11.01±2.70 (Table 3).

In table 4, the relationship between the EIAS sub-dimensions and total score and the RFC, FOC, WCCL sub-dimensions is examined. A moderately positive significant correlation between the SAW and SMO sub-dimension of EIAS and SCA sub-dimension of WCCL ($p < 0.001$, $r = 0.532$) ($p < 0.001$, $r = 0.531$), a weakly significant correlation ($p < 0.001$) between the sub-dimensions of WCCL and other sub-dimensions of EIAS were found. Moderately significant positive correlation between the total score of EIAS and SCA sub-dimension of WCCL ($p < 0.001$, $r = 0.535$); A weakly significant positive correlation between OA ($p < 0.001$, $r = 0.474$) and SSS ($p < 0.001$, $r = 0.234$) subscale; Poorly significant positive correlation between RFC ($p < 0.001$, $r = 0.283$) and FOC ($p < 0.001$, $r = 0.355$); A weak negative correlation between H ($P > 0.05$, $r = -0.054$) and S ($P > 0.05$, $r = -0.065$) sub-dimension ere found. It was concluded that there is a weak statistically positive and weak relationship between all sub-dimensions of EIAS and RFC ($p < 0.001$, $r = 0.283$) and FOC ($p < 0.001$, $r = 0.355$) (Table 4).

In table 5, negatively weakly significant between the H and S sub-dimensions of RFC and FOC and WCCL $p < 0.001$, $r = -0.257$) ($p < 0.001$, $r = -0.355$), ($p < 0.001$, $r = -0.361$) ($p < 0.001$, $r = -0.257$); weakly significant positive correlations in SCA and OA sub-dimensions were determined ($p < 0.001$, $r = 0.407$) ($p < 0.001$, $r = 0.453$); ($p < 0.001$, $r = 0.309$) ($p < 0.001$, $r = 0.333$) **(Table 5).**

Table 6 shows that the effect of FOC, EIAS and WCCL on RFC is statistically significant according to multiple regression analysis ($F = 101.405$; $P < 0.001$). 31% of the factors determining the RFC can be explained by FOC, EIAS and WCCL. While t statistics values indicating the significance of the regression coefficients were found to be significant for FOC ($t = 14.928$; $p < 0.000$) and EIAS ($t = 2.670$; $p < 0.008$), it was found to be statistically insignificant for WCCL ($t = 0.109$; $p = 0.913$). When the independent variables are examined, a one unit increase in the FOC provides an increase of 0.540 in the dependent variable (RFC) and an increase of 0.016 in the dependent variable (RFC) in the EIAS. However, the FOC, EIAS levels of the participants were found to have a statistically significant and positive effect on individual performance ($= 0.540$; $p < 0.000$, $\beta = 0.016$; $p < 0.008$) **(Table 6).**

DISCUSSION

This study discussed in line with the literature the relationship between pregnant women' emotional intelligence and fear of childbirth, readiness for childbirth and ways of coping with stress.

In our study, it was determined that the mean score of the pregnant women on the EIAS was low. 52.8% of them definitely needed to improve their EI level. The mean scores of pregnant women on the EIAS sub-dimensions were also normal and low (**Table 2**). Similar to the findings of our study, Çapık et al.(4) (2016) found that 45.1% of the pregnant women had low EI levels while Buko and Özkan (6) (2016) found that 57.1% of the pregnant women had a normal level of emotional intelligence. In the study of Golmakani et al. (39) (2018) using the Bar-On Scale the EI levels of the pregnant women were found to be normal. The EI levels of pregnant women were different in current studies. This situation may be caused by the inability of controlling the emotions by pregnant women due to the increase in their emotional dependence, need for social support, FOC, and anxiety about the life of the baby with the approach of birth in the last trimester of pregnancy.

In this study, the pregnant women had low-level RFC and high-level FOC (**Table 3**). Beydağ and Mete (36) (2008) conducted the reliability and validity of the scale, their mean RFC score was 32.1±4.6 and their mean FOC score was 34.9±4.6. Demirbaş and Kadıoğlu (29) (2014) determined that the RFC scores of the pregnant women were moderate and women with high education levels adapted to pregnancy better. We have similarly considered that the RFC was lower and the FOC was high due to the high rate (C) of primary school graduate mothers in the study. Mete et al.(40) (2017) conducted a study that supports this explanation, the readiness for pregnancy increased significantly as a result of the education given to the pregnant women in the antenatal class but the decrease in the FOC was not significant.

When the mean scores of the sub-dimensions of WCCL were examined in the study, it was concluded that the pregnant women displayed a partially effective attitude in coping with stress because their SCA, OA, SSS dimensions were above the average score, and the H and S dimensions were below the

average score (Table 3). In Yılmaz and Beji's (41) (2010) study, it was found that pregnant women with high EI exhibited higher H and S attitudes in coping with stress and could not cope effectively with stress; Similarly, in the study of Coşkun (42) (2019), it was observed that individuals with low EI level fail to manage their emotions and therefore tend to exhibit H and S in a stressful situation they encounter. There are studies showing that individuals who have high levels of EIand who are not pregnant can cope with stress better (43-46).

In our study, it was observed that pregnant women who are aware of their emotions and who can motivate themselves have higher self-confident approaches (Table 4). In the study conducted by Wang (47) (2016) with students, it was seen that there was no significant relationship between EI and coping with stress, but self-efficacy completely mediates the relationship between EI and active coping. It can be thought that this difference in studies may be due to the different study groups and the effect of hormonal changes due to pregnancy on emotions. Also, the fact that pregnant women are in the third trimester carries the risk of further increasing the stress and fear towards birth. In the study of Çapık et al. (4) (2016), it was determined that there is a positive significant relationship between health practices and EI during pregnancy, and positive health practices increase as the EI of pregnant women increases. This finding supports the above comment. In the study conducted by Çankaya and Çiftçi (43) (2019) with nurses, moderate and weak positive significant relationships were found between all sub-dimensions of EIAS and their style of coping with stress. Noorbakhsh et al. (48) (2010) found that individuals with a high level of EI used helpless and submissive coping styles less. It can be suggested that there is a significant relationship between EI and stress in our study and the literature; the effect of EI in stress control is at a considerable level.

It was found that there was a weak and positive correlation ($p < 0.001$) between the EI total and sub-dimension scores of the pregnant women and their readiness to labor and their FOC (Table 4). Increasing EI level and decreasing stress level may decrease the FOC (6,11,49). In line with this explanation, it is expected that pregnant women will have low RFC and high FOC due to low EI levels. As a result of this study, the increase in EI levels of pregnant women increased their fears of labor and their RFC. This oppositeness may be due to the fact that the increased stress due to the gestational process positively affects the readiness of pregnant women, while having a partially effective attitude in coping with stress may increase labor fears. This contrast may be due to the fact that the increased stress due to the gestational process positively affects the readiness of pregnant women, while having a partially effective attitude in coping with stress may increase labor fears. Contrary to this finding, Abdollahpour and Khosravi's (50) (2016) study on the "relationship between spiritual intelligence and happiness and labor fear in pregnant Iranian women" showed that the increased level of spiritual intelligence in pregnant women caused an increase in their happiness, and there was a negative relationship between spiritual intelligence and FOC.

These findings are the pieces of evidence of the preventability of the FOC by training of pregnant women on the components of emotional intelligence. The techniques that are taught to pregnant women to cope with stress during pregnancy can help increase their happiness, reduce their FOC, and thus encourage them natural Labor. In this way, optional cesarean deliveries can be prevented.

In the study, it was observed that while the readiness of pregnant women and their FOC increased, their efforts to find social support with a self-confident and optimistic approach increased, and their desperate and submissive approaches decreased (Table 5). Goodman et al. (51) (2004) determined that positive expectations of women for Labor may contribute to a positive birth experience. Erdemoğlu et al. (52) (2019) similarly found that pregnant women who were not successful in controlling their emotions and had difficulty in coping with stress experienced the FOC more severely. It is important to evaluate the factors that may cause stress to make the pregnancy and birth process a beautiful activity. In line with this purpose, the among duties of midwives are to provide active assistance to pregnant women in the context of EI components, to meet their needs in terms of emotion, to provide comfort, to increase self-esteem, to obtain a positive birth experience, and to help them for the adaptation of the role of motherhood (18-20).

It can be said that being ready for labor means feeling ready for labor both physically and psychologically. Its purpose is to provide pregnant women with information about labor, to teach coping strategies, to act effectively in coping with the FOC, and to provide couples with a positive labor experience (52). In the

study, it is seen that the effect of FOC, EIAS and WCCL on RFC of pregnant women is statistically significant according to multiple regression analysis. While the effects of FOC and EI on RFC were found to be significant, it was found to be insignificant for styles of coping with stress.

When the independent variables were examined, it was seen that one unit increase in the FOC and EI increased the RFC (Table 6). In this study, it was observed that FOC and EI affected the RFC at the level of significance, while variables such as the year of marriage, hyperemesis gravidarum, being in the 30-44 age range, having two or more pregnancies and receiving prenatal education were reported in the literature (29,53). In the study of Bolsoy Çelik and Şimşek (54), on the contrary to this study, it was stated that the decrease in FOC in pregnant women positively affects the RFC and maternal compliance. In this study, it was determined that the style of coping with stress did not affect the RFC at the level of significance, while Izudi et al. (55) (2019) reported that being ready for labor and coping with labor complications increased in direct proportion. EI, which is the basis of success in personal and professional life, positively affects the ambivalent emotions during pregnancy. This positive effect allows the pregnancy to be passed easily, the fear and emotions related to labor to be controlled, and the labor to be terminated without any complications (35). On the other hand, it should be kept in mind that the development of the "empathic" skill of the midwife serving the pregnant woman, which is a sub-dimension of emotional intelligence, is important for a positive pregnancy experience and increasing maternal satisfaction at birth (56).

The results of the study confirmed the H1 hypothesis "There is a relationship between the pregnant women's emotional intelligence, FOC, RFC, and their ways of coping with stress".

CONCLUSION

It has been observed that there is a weakly and positively significant relationship between the EI of pregnant women and their FOC, their readiness to labor, and their style of coping with stress. In this respect, it was concluded that the EI levels of pregnant women need to be improved, their RFC and their FOC are low, and that they display a partially effective attitude in their coping style with stress. In line with these results, the following suggestions have been made. Giving regular training within the scope of prenatal care to improve the EI levels of pregnant women Providing to gain the skills by midwife candidates to use and develop their EI from the moment of midwifery education to go places in their profession and to provide effective midwifery care. In this direction, it should be ensured that the emotional intelligence of pregnant women contributes to the development. Despite the limitations of the study, it is the only study in which all the sub-dimensions of the relationship between emotional intelligence, fear, and stress related to childbearing were evaluated. In this direction, it is recommended to conduct more extensive studies in which the EI of pregnant women is investigated.

Limitations of the Study

The results of the study are valid only for the sample and cannot be generalized to society. The high number of the questions in the questionnaires, the long duration of the interviews, the similarity of some factors in the scales caused many pregnant women to leave the study.

Acknowledgements: This study has been published as a master's thesis.

Funding: No financial resources were used for the study.

Declarations of competing interest: The authors declare that there no conflicts of interest.

Ethical considerations : Before the study, the ethical committee approval (No: 18-KAEK-233) was obtained from the Ethics Committee of Non-Interventional Studies of Gaziosmanpaşa University while the required institutional permissions were obtained from the institutions where the study was conducted. Verbal and written informed consent was obtained from the participants. The required permissions were also obtained from the researchers who conducted the Turkish validity reliability studies of the scales used

Peer-review: Externally peer-reviewed.

REFERENCES

1. Mayer JD, Salovey P, Caruso DR. Emotional intelligence as zeitgeist, as personality, and as a mental ability. In: R. Bar-On & J. D. A. Parker, editors. The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace, Jossey-Bass. 2000;p. 92–117.
2. Airo R, Korja R, Saisto T, Rouhe H, Muotka J, Salmela–Aro K. Changes in emotions and personal goals in primiparous pregnant women during group intervention for fear of childbirth. Journal of Reproductive and Infant Psychology. 2018;36(4), 363-380.

3. Hildingsson I. Haines H, Karlström A, Nystedt A. Presence and process of fear of birth during pregnancy—Findings from a longitudinal cohort study. Women and Birth. 2017;30(5):e242–e247.
4. Çapık A, Sakar T, Apay SE. Relationship between health practices and emotional intelligence in pregnancy. International Refereed Journal of Nursing Research. 2016;6:76-88.
5. Lee RT, Ashforth BEA. Further examination of managerial burnout: Toward an İntegrated Model. Journal of Organizational Behavior. 1993;14(1):3-20.
6. Buko G, Özkan H. The correlation between emotional intelligence and prenatal attachment levels of pregnant women. Journal of Anatolia Nursing and Health Sciences. 2016;19(4):217-224.
7. Serçekuş P, Okumuş H. Fears associated with childbirth among nulliparous women in Turkey. Midwifery. 2009;25(2):155-162.
8. Sönmez CI, Sivaslıoğlu AA. Preference of delivery type of pregnant women and the factors effecting them. Konuralp Medical J. 2019;11(3):369-376.
9. Yaşar Ö, Kır Şahin F, Coşar E, Nadirgil Köken G, Cevrioğlu AS. Birth preferences of primipara women and factors affecting this. J Clin Obstet Gynecol. 2007;17(6):414-420.
10. Diego MA, Field T, Hernandez-Reif M, Schanberg S, Kuhn C, Gonzalez-Quintero VH. Prenatal depression restricts fetal growth. Early Hum Dev. 2009;85(1):65-70.
11. Shishehgar S, Dolatian M, Majd HA, Bakhtiary M. Perceived pregnancy stress and quality of life amongst Iranian women. Glob J Health Sci. 2014;6(4):270-277.
12. Pearlstein T. Depression during pregnancy. Best Pract Res Clin Obstet Gynaecol. 2015;29(5):754-764.
13. Aktaş S, Pasinlioğlu T. The effect of empathic communication skills of midwives on labor and post labor period. Anatolian Journal of Nursing and Health Sciences. 2016;19:38-45.
14. Gaskin IM. Ina May's birth preparation guide. In: Erkök ÖE, Güler ZB, editors. 1. st ed. İstanbul: Sinek Sekiz Publishing. 2015;305-378.
15. Erigüç G, Eriş H, Kabalcıoğlu F. Emotional intelligence and communication skills of nursing students: Example of Harran University School of Health. International Online Journal of Educational Sciences. 2014;6(2):1-7.
16. Karaçam Z, Akyüz EÖ. Supportive care given in labor and the role of the midwife / nurse. Florence Nightingale Nursing Journal. 2011;19(1):45-53.
17. Tiran D. The Context of Childbirth: Psychological Context. In: Henderson C, Macdonald S, editors. Mayes' Midwifery A textbook for Mdiwives. 13 th ed. London: Elsevier. 2008;14-27.
18. Mongan MF. Hypnobirthing: The Mongan Method: A natural approach to a safe, easier, more comfortable birthing. 3rd ed. Health Communications, Inc. FL. 2005;57-63.
19. Miltner RS. Identifying labor support actions of intrapartum nurses. J Obstet Gynecol Neonatal Nurs. 2000;29(5):491-499.
20. Sleutel MR. Intrapartum nursing: Integrating Rubin's Framework with Social Support Theory. J Obstet Gynecol Neonatal Nurs. 2003;32(1):76-82.
21. Patterson D, Begley A.M. An exploration of the importance of emotional intelligence in midwifery, Evidence Based Midwifery. 2011;9(3):128-134.
22. Dönmez S, Yeniel Ö, Kavlak O. Comparison of state anxiety levels of pregnant women having vaginal delivery and cesarean section. Gümüşhane University Journal of Health Sciences. 2014;3(3):908-920.
23. Uçar T, Gölbaşı Z. Fear of childbirth, ıts causes and consequences. İnönü University Journal of Health Sciences. 2015;4(2):54-58. https://www.researchgate.net/publication/306572188
24. Yılar Erkek Z, Aktas S. The effect of foot reflexology on the anxiety levels of women in labor. The Journal of Alternative and Complementary Medicine. 2018;24(4):352–360. https://doi.org/10.1089/acm.2017.0263
25. Dursun P, Yanık FB, Zeyneloglu HB, Baser E, Kuscu E, Ayhan A. Why women request cesarean section without medical ındication? The Journal of Maternal Fetal and Neonatal Medicine. 2011;24(9): 1133-1137.
26. Demirsoy G, Aksu H. Reasons of fear and copıng assocıated with childbirth. KASHED. 2015;2(2):36-45.
27. Özcan Ş, Arslan E. Determination of maternal satisfaction at normal and cesarean birth. Florence Nightingale Nursing Journal. 2015;23(1):41-48.
28. Bülbül T, Özen B, Çopur A, Kayacık F. Investigation the fear of labor and decision making about delivery type in pregnant. Journal of Health Sciences). 2016;25(3):126-130.

29. Demirbaş H, Kadıoğlu H. Adaptation to pregnancy in prenatal period women and factors associated with adaptation. Journal of Marmara University Institute of Health Sciences. 2014;4(4):200-206.
30. Ergin EF. A research on the relationship between emotional intelligence levels of university students and their 16 personality traits. Social Sciences Institute, Department of Child Development and Home Management Education (dissertation). Konya: Selçuk Univ. 2000.
31. Karahan TF, Özçelik M. The effect of an emotional intelligence skill training program on the emotional intelligence levels of Diabetes patients. Uludağ University Journal of Education Faculty. 2006;19(2):301-320.
32. Sardoğan ME, Kaygusuz C. Investigation of the individuals who were diagnosed as antisocial personality disorder and not diagnosed in terms of emotional intelligence levels. Ege Journal of Education. 2006;7(1):85-102.
33. Ünsar S, Fındık ÜY, Sadırlı SK, Erol Ö. Emotional intelligence level of Edirne Health School Students, University of Social Sciences. Education and Thought Journal. 2009;9(1):1-13.
34. Fırat Kılıç H, Çağlayan S, Sucu Dağ G. Emotional intelligence levels of nursing students and affecting factors. Journal of Education and Research in Nursing. 2017;14(4):275-282.
35. Goleman D. Emotional intelligence: why is it more important than academic intelligence (IQ)? In: Yüksel B.S, editor. Istanbul: Varlık Publications. 1998;34-68.
36. Beydağ KT, Mete S. Validity and reliability study of the prenatal self-evaluation questionnaire. Journal of Anatolia Nursing and Health Sciences. 2008;11(1):16-24.
37. Şahin NH, Durak A. Stress Coping Styles Scale: Adaptation for university students. Turk Psikol Derg. 1995;10(34):56-73.
38. Karahan TF, Koç HE. A study of stress coping styles of university students according to the frequency of alcohol and cigarette use. Ege Journal of Education. 2005;6(2):113-131.
39. Golmakani N, Ahmadi M, Asgharipour N, Esmaeli H. The relationship of emotional intelligence with Women's Postabortion Grief and Bereavement. JMRH. 2018;6(1):1163-1169.
40. Mete S, Çiçek Ö, Aluş Tokat M, Çamlıbel M, Uludağ E. The effect of childbirth preparation classes on fear of childbirth, birth preference and preparation of labor. Turkiye Klinikleri J Nurs Sci. 2017;9(3):201-216.
41. Yılmaz SD, Beji NK. Levels of coping with stress, depression and prenatal attachment and affecting factors of pregnant women. General Medical Journal. 2010;20(3):99-108.
42. Coşkun, E. Investigation of the effect of emotional intelligence and intolerance of uncertainty to the ways of coping with stress (dissertation). İstanbul: Fatih Sultan Mehmet Foundation Univ.2019.
43. Çankaya M, Çiftçi EG. The impact of emotional intelligence on nurses' coping styles with stress: An application in Çorum. Anadolu University Journal of Social Sciences. 2019;19(2):391-414.
44. Sarabia-Cobo CM, Suárez SG, Crispín EJM, Sarabia Cobo AB, Pérez V, De Lorena P, Rodriguez C, Sanlúcar LG. Emotional intelligence and coping styles: An intervention in Geriatric Nurses. Appl Nurs Res. 2017;35:94-98.
45. Ogińska-Bulik N. Emotional intelligence in the workplace: exploring its effects on occupational stress and health outcomes in human service workers. Int J Occup Med Environ Health. 2005;18(2):167-175.
46. Pau AKH, Croucher R, Sohanpal R, Muirhead V, Seymour K. Emotional intelligence and stress coping in dental undergraduates—a qualitative study. Br Dent J. 2004;197(4):205-209.
47. Wang Y, Xie G, Cui X. Effects of emotional intelligence and self-leadership on students' coping with stress. Soc Behav Pers. 2016;44(5):853-864.
48. Noorbakhsh SN, Besharat MA Zarei, J. Emotional intelligence and coping styles with stress. Procedia-Social and Behavioral Sciences. 2010;5: 818-822.
49. Lea RG, Davis SK, Mahoney B, Qualter P. Does emotional intelligence buffer the effects of acute stress? A systematic review. Front Psychol. 2019;10(8):10-19.
50. Abdollahpour I, Nedjat S, Besharat MA, Hosseini B, Salimi Y. Emotional intelligence: A comparison between medical and non-medical students. Iran J Public Health. 2016;45(2):214-222.
51. Goodman P, Mackey MC, Tavakoli, AS. Factors related to childbirth satisfaction. J Adv Nurs. 2004;46(2):212-219.
52. Erdemoğlu Ç, Özşahin Z, Altıparmak S. The effect of personality traits of pregnant and their ways of coping with stress on the fear of

childbirth. Jour Turk Fam Phy. 2019;10(3):130-139.
53. Tighe SM. An exploration of the attitudes of attenders and nonattenders towards antenatal education. Midwifery. 2010;26(3): 294-303.
54. Bolsoy N, Çelik N, Şimşek HN. Does psycho-education improve obstetric and maternal outcomes in women with fear of birth? Systematic Review. Dokuz Eylul University Faculty of Nursing Electronic Journal. 2019;12 (1):82-90.
55. Izudi J, Akwang DG, McCoy SI, Bajunirwe F, Kadengye DT. Effect of health education on birth preparedness and complication readiness on the use of maternal health services: A propensity score-matched analysis. Midwifery. 2019;78:78-84.
56. Aktas S, Pasinlioğlu T. The effect of empathy training given to midwives on the empathic communication skills of midwives and the birth satisfaction of mothers giving birth with the help of these midwives: A quasi-experimental study. Journal of Evaluation in Clinical Practice. 2020:1-10.