

## Original Article

## Relationship of Self-Compassion and Fear of Childbirth among Pregnant Women

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### Abstract

**Background:** Fear of childbirth, psychosocial health in pregnancy, labor and the postpartum period may negatively affect women. Self-compassion can be viewed as a useful emotional regulation strategy, in which painful or distressing feelings.

**Aim:** This study was performed to examine the relationship between fear of childbirth and self-compassion among pregnant women.

**Methodology:** The sample of cross-sectional and correlational study was included 104 pregnant women. Data were collected via a questionnaire form, Self-Compassion Scale and the Wijma Delivery Expectancy/Experience Questionnaire A (W-DEQA).

**Results:** The average of W-DEQA score of pregnant women was  $74.51 \pm 34.18$ . Fear of childbirth levels among pregnant women according to the W-DEQ A scores were 49% at clinical level, 18.3% at severe level, 15.4% at moderate level, and 17.3% at low level. There was negatively correlations between W-DEQA scores and self-compassion and its subscales including self-kindness, mindfulness, common humanity, but were positively significant correlations self-judgments, isolation, over-identification. Self-compassion was a significant predictor of fear of childbirth ( $p < .001$ ).

**Conclusions:** As a results of this study, as self-compassion increases, fear of childbirth decreases. Health professionals should questioned pregnant women in terms of fear of childbirth and self compassion. Interventional studies to increase self-compassion are recommended to reduce the fear of childbirth of the pregnant woman.

**Key words:** Fear of childbirth, pregnancy, pregnant women, Self-compassion

### Introduction

Pregnancy and childbirth are transition periods in a woman's life associated with heightened levels of emotion and anxiety. Childbirth is an experience that is versatile and unique for every woman and is strongly influenced by its social context (Nilsson et al., 2018). Fear of childbirth is a mood felt by every pregnant woman and increases in parallel to the approaching birth. Superstitious beliefs, level of civilization of society and culture are the most important elements that affect women's perception of pain which leads to formation of anxiety and fear of childbirth (Koroğlu et al., 2017). Fear of childbirth, psychosocial health in pregnancy, labor and the postpartum period may negatively affect women in unique and special ways causing restlessness and tension in pregnancy, especially in the last trimester (Storksens, et al., 2012). Fear

of childbirth before and during pregnancy can direct women to choose elective cesarean section (Fenwick et al., 2015). The rate of caesarean section in Turkey in 2013 and 2018 was 48% and 52%, respectively (Hacettepe University Institute of Population Studies, 2019). However, the rate of caesarean section recommended by the World Health Organization is 10-15% (World Health Organization, 2015). One of the reasons for elective cesarean section is fear of childbirth (Storksens et al., 2015; Stützer et al., 2017). In a previous study, 70.6% of women who chose caesarean section had fear of childbirth, whereas only 10.9% of women who chose vaginal delivery reported fear of childbirth (Matinnia et al., 2015). Fear of childbirth can occur due to biological, psychological, social or secondary causes including pain fear, bodily harm, death of oneself or baby, personality traits, history of traumatic life

events or previous difficult or traumatic obstetric experiences, sense of helplessness or maternal anxiety, dissatisfaction with partner relationship, lack of social support, low socioeconomic status (Veringa, et al., 2016). One of the psychological factors that affects fear of birth is the personality traits of women. Self-efficacy, self-esteem and optimism were negatively and significantly associated with fear of childbirth (Goutaudier et al., 2019). Self-compassion can be defined as an individual's being attentive and understanding of themselves rather than criticizing themselves in situations involving pain and failure, seeing negative experiences as a part of human life, and developing a logical and realistic perception rather than emphasizing negative emotions and thoughts (Neff, 2003a). Self-compassion is positively related to many concepts such as self-acceptance, life satisfaction, social interest, consciousness, autonomy, personal development, happiness and optimism. Individuals who show compassion for themselves do not make harsh judgments or self-criticism (Neff, 2003a; Neff, 2003b; Neff et al., 2005). At the same time, self-compassion was found to be negatively associated with anxiety, depression, self-criticism, neuroticism, thought pressure, and neurotic perfectionism (Neff 2003a; 2003b; Neff et al., 2005).

Self-compassion has three components which mutually influence each other including self-kindness, awareness of common humanity, and mindfulness. *Self-kindness* comprises non-judgmental understanding of the self. *Awareness of common humanity* means that one experiences the joys and sorrows of life knowing that they are the same joys and sorrows all others experience. *Mindfulness* is defined as a preconceptual awareness that allows for acceptance and acknowledgement even of life's most painful emotions without being overwhelmed by them (Neff & Germer, 2013). These three elements of self-compassion interact with each other and assist in the emergence and development of the others. Mindfulness helps individuals to develop feelings of self-kindness and common humanity by mentally removing their negative experiences (Neff, 2003b). In mindfulness, a person directs attention to the present mind and world, current experiences such as feelings and body sensations, and external stimuli such as sight, sound and smell (Baer et al., 2012). It is important for nurses, midwives and physicians, who have a role and responsibility in labor, to be aware of personal

characteristics and to make plans in order to manage the fear of childbirth that negatively affects women's expectations and experience. There is limited study about relationship between self-compassion and fear of childbirth in pregnant women.

The aim of this study was to examine the relationship between fear of childbirth and self-compassion among pregnant women.

## Methods

**Design and participants:** This descriptive and cross-sectional study was performed in an obstetric outpatient clinic in a state hospital in Ordu, Turkey. The sample in the study consisted of 104 pregnant women. Inclusion criteria included age between 18 and 45 years, gestational ages 28 to 40 weeks with a healthy fetus. Exclusion criteria included sexually transmitted disease, complications during pregnancies, and cesarean section in previous pregnancy/pregnancies.

**Instruments:** A questionnaire form, the Self-Compassion Scale, and the Wijma Delivery Expectancy/Experience Questionnaire W-DEQA version were used for data collection.

**Questionnaire form :** The questionnaire form included questions such as age, education level, profession, social security, income perception, place of residence, previous birth type, gestational week, number of birth, number of children, weight, height, number of antenatal visit of the pregnant women, and whether the pregnancy was planned.

**Self-Compassion Scale:** Self-compassion scale was developed by Neff (2003b). Turkish reliability and validity study of the Self-compassion Scale was done by Akin et al. (2007). The Self-compassion scale with 26 items is composed of six subscales confirmed including self-kindness (2., 6., 13., 17., 21. items), self-judgment (4., 7., 15., 20., 26. items), common humanity (1., 8., 12., 22.items), isolation (5., 11., 19., 25.items) mindfulness (9., 14., 18., 23. items) and over-identification (3., 10., 16., 24. Items). The Self-Compassion Scale is a self-report measurement tool that evaluates the features associated with the sub-dimensions of self-compassion. The scale has a 5-point Likert type rating (1 point) "almost never" (2 points) "rarely" (3 points) "often" (4 points) "usually" and (5 points) "almost always". There are 26 items in the Turkish form of the scale, as in the original form. The high scores of the individual the internal

consistency coefficients of subscales of Self-Compassion Scale from each subscale indicate that the individual has the features evaluated by the relevant subscale (Akin et al., 2007). In the subscales of the self-compassion scale, 1-2.5 points are interpreted as low, 2.5-3.5 points are moderate and 3.5-5 points are high. In the study of Neff (2003b), the internal consistency reliability coefficients of the subscales were found as 0.78 for self-kindness, .77 for self-judgment, 0.80 for common humanity, 0.79 for isolation, 0.75 for mindfulness and 0.81 for over-identification, respectively, for the subscales (Neff, 2003b). In Self-compassion Turkish version, the internal consistency reliability coefficients of the subscales were found as 0.77, 0.72, 0.72, 0.80, 0.74, 0.74, respectively (Akin ve ark., 2007). In this study, the internal consistency coefficients of subscales of Self-Compassion Scale were found 0.96, 0.93, 0.97, 0.80, 0.93, and 0.91, respectively.

**Version A of the the Wijma Birth Expectancy / Experience Scale:** The Wijma Birth Expectancy / Experience Scale (W-DEQ-A) was developed by Wijma, et al. (1998) to measure women's fear of birth. This scale is used to determine the fear of birth experienced by women who have given birth, as well as those who have not given birth. The validity and reliability of the scale was adjusted to Turkish by Korukcu, Kukulu, and Firat (2012). The scale consists of 33 items. The answers are numbered from 0 to 5, with six types of likert. The minimum score that can be taken from the scale is 0, the maximum score is 165. Increasing the scale score of pregnant women shows that the fear of birth of pregnant women increases. 2, 3, 6, 7, 8, 11, 12, 15, 19, 20, 24, 25, 27, 31 as the numbered questions are calculated by turning in the opposite direction. WDEQ scores were collected in four subgroups including low birth fear (W-DEQA score  $\leq 37$ ), moderate birth fear (W-DEQA score between 38-65), severe birth fear (W-DEQA score 66-84), and clinical birth fear (W-DEQA score  $\geq 85$ ) (Wijma et al., 1998). The W-DEQA Cronbach alpha value was 0.89 and the split-half reliability was 0.91 (Korukcu et al., 2012). In this study, W-DEQA Cronbach alpha value was 0.96.

**Data analysis:** In data analysis was used descriptive statistics including mean, standard deviation, frequency, percentage. In analysis of parametric variables with two categories was used *t*-test. Correlations between variables was evaluated correlation analysis test and linear regression analysis. The level of significance used was  $p < 0.05$ .

**Ethical issues:** The written permission was obtained approval from the institution to be investigated before the research data was collected. The pregnant women who participated in the research were informed about the research and their written permission was obtained. This study was carried out in accordance with the principles of the Helsinki Declaration.

## Results

### Sociodemographic and obstetrics characteristics of pregnant women

The sample consisted of 104 pregnant women ranging in age from 18 to 44 years (mean 25.72 (SD 5.54)). All of the pregnant women were in the third trimester, and about half were primiparous (50.0%). The average number of antenatal care visits at a health center during the present pregnancy was 10.15 (SD 1.97). It was found that 39.4% of pregnant women were high school graduates, 82.7% were housewives, 60.6% had social security, 45.2% had "moderate" income and 71.2% live in the city. It was determined that 30.8% of women had spontaneous vaginal birth, and 75% of pregnancies were planned.

### Self-compassion scores of pregnant women

The average scores were  $16.25 \pm 5.73$  (range 0-25) for self-kindness subscale,  $12.90 \pm 5.27$  (range 5-25) for self-judgment subscale,  $12.83 \pm 4.75$  (range 0-20) for common humanity subscale,  $10.58 \pm 3.89$  (range 4-20) for isolation subscale,  $12.72 \pm 4.49$  (range 0-20) for mindfulness subscale, and  $10.37 \pm 4.30$  (range 4-20) for over-identification subscale (see Table 1).

### Fear of childbirth levels and W-DEQ A scores of pregnant women

Fear of childbirth levels and W-DEQ A scores of pregnant women are shown in Table 2. Fear of childbirth levels among pregnant women according to the W-DEQ A scores were 49% at clinical level, 18.3% at severe level, 15.4% at moderate level, and 17.3% at low level (see Table 2). According to the level of fear of childbirth, the W-DEQ A score was 17.16 (SD 11.76) for pregnant women with low level of fear of childbirth, 54.12 (SD 8.38) for pregnant women with moderate fear of childbirth, 76.52 (SD 6.23) for pregnant women with severe fear of childbirth, and 100.41 (SD 17.96) for pregnant women with clinical fear of childbirth. The average W-DEQ A score of pregnant women was  $74.51 \pm 34.18$  (range 0-165).

### Comparison of fear of childbirth level of pregnant women according to mean Self-Compassion and subscale scores

The comparison of self-compassion and subscales according to fear of childbirth levels of pregnant women is given in Table 3. When the pregnant women with low level fear of childbirth, moderate level fear of childbirth, severe level fear of childbirth and clinical level fear of childbirth according to W-DEQ A scores are compared in terms of mean self-compassion total and subscale scores, the differences for self-kindness ( $p=0.003$ ), self-judgment ( $p=0.006$ ), isolation ( $p=0.002$ ), over-identification ( $p=0.003$ ) and total self-compassion ( $p=0.003$ ) scores were statistically significantly different between groups. There was no statistically significant difference identified according to common humanity subscale and mindfulness subscale scores ( $p>.05$ ) (Table 3).

### Correlations between Self-Compassion and W-DEQ A

Correlations between the self-compassion scale and subscale scores and W-DEQ A scores of pregnant women are shown in Table 4. In this study, there were negative significant correlations between scores for W-DEQ A and the total self-compassion scores ( $r= -.358$ ) and subscale scores including self-kindness ( $r=-.358$ ,  $p=.000$ ), mindfulness ( $r=-.261$ ,  $p=.007$ ), and common

humanity ( $r=-.361$ ,  $p=0.005$ ), but there were positive significant correlations for self-judgment ( $r=.361$ ,  $p=0.000$ ), isolation ( $r=.350$ ,  $p=0.000$ ), and over-identification ( $r=.361$ ,  $p=0.000$ ). In other words, as the self-compassion scale score and subscale scores for self-kindness, mindfulness, and common humanity increased, the W-DEQ A score decreased. However, as the self-judgment, isolation, and over-identification subscale scores increased, the W-DEQ A score increased (see Table 4).

Age, number of pregnancies, number of births, number of antenatal visits, and gestational week were not correlated with W-DEQ A scores and self-compassion scale scores ( $p>0.05$ ).

### Predictor of fear of childbirth

The results shown in Table 5 suggest that self-compassion significantly predicted W-DEQ A scores of pregnant women ( $R = 0.362$ ;  $R^2 = 0.131$ ,  $F_{(1, 103)} = 15.340$ ,  $p<.001$ ). This variable explained 36.2% of the variance in fear of childbirth among pregnant women. According to standardized regression coefficient ( $\beta$ ), the relative importance of the predictive variable on fear of childbirth was found for total self-compassion ( $\beta=0.362$ ) of pregnant women. When the t test results related to the significance of the regression coefficient are investigated, it appeared self-compassion was a significant predictor of fear of childbirth ( $p<.001$ ).

**Table 1.** Self-Compassion Scale and its subscales mean, standard deviation and range scores

Self Compassion and Subscales	Self Compassion Scales Scores			Cronbach Alfa
	Mean	SD	Range	
Self-kindnes subscale	3.40	1.07	1-5	0.96
Self-judgments subscale	3.41	1.05	1-5	0.93
Common humanity subscale	3.21	1.16	1-5	0.97
Isolation subscale	3.35	0.97	1-5	0.80
Mindfulness subscale	3.18	1.10	1-5	0.93
Over-identification subscale	3.40	1.07	1-5	0.91
Total self compassion scale	19.83	5.64	7.60-29.00	0.79

**Table 2.** Fear of childbirth levels and W-DEQ A scores of pregnant women (n=104)

W-DEQ A Levels	n	%	W-DEQ		Test ve p
			Mean	SD	
Low level ( $\leq 37$ )	18	17.3	17.16	11.76	$\chi^2=89.518$ p=0.000
Medium level (38-65)	16	15.4	54.12	8.38	
Advanced level (66-84)	19	18.3	76.52	6.23	
Clinic level ( $\geq 85$ )	51	49.0	100.41	17.96	
<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>74.51</b>	<b>34.18</b>	

**Table 3 .** Fear of childbirth levels according to W-DEQ A scores of pregnant women

	Fear of childbirth levels according to W-DEQ A scores				Test and P
	Low level (n=18) ( $\leq 37$ points)	Moderate level (n=16) (38-65 points)	Advanced level (n=19) (66-84 points)	Clinical level (n=51) ( $\geq 85$ points)	
<b>Self-Compassion Subscales</b>					
<b>Self-kindnes subscale</b>	4.09 (0.56)	3.54 (0.81)	3.63 (0.73)	3.02 (1.23)	$\chi^2=14.172$ <b>p=0.003*</b>
<b>Self-judgments subscale</b>	4.07 (0.60)	3.50 (0.76)	3.62 (0.76)	3.07 (1.21)	$\chi^2=12.300$ <b>p=0.006*</b>
<b>Common humanity subscale</b>	3.72 (1.02)	3.34 (1.00)	3.32 (1.05)	2.96 (1.25)	$\chi^2=6.718$ p=0.081
<b>Isolation subscale</b>	3.94 (0.55)	3.54 (0.87)	3.52 (0.67)	3.01 (1.08)	$\chi^2=14.643$ <b>p=0.002*</b>
<b>Mindfulness subscale</b>	3.58 (0.99)	3.37 (0.98)	3.35 (0.82)	2.93 (1.21)	$\chi^2=6.534$ p=0.088
<b>Over-identification subscale</b>	4.09 (0.56)	3.54 (0.81)	3.63 (0.73)	3.02 (1.23)	$\chi^2=14.12$ <b>p=0.003*</b>
<b>Total Self-compassion Scale</b>	23.13 (3.67)	20.75 (5.11)	20.90 (4.44)	17.99 (6.16)	$\chi^2=13.831$ <b>p=0.003*</b>

\*. The differences are between the "a" and "d" groups.



**Table 4.** Correlations between Self-Compassion scale and its subscales scores and W-DEQA scores of pregnant women

Self Compassion Subscales	W-DEQA Scores Correlations	
	r	p
Self-kindnes subscale	-.358	<b>0.000</b>
Self-judgments subscale	.361	<b>0.000</b>
Common humanity subscale	-.276	<b>0.005</b>
Isolation subscale	.350	<b>0.000</b>
Mindfulness subscale	-.261	<b>0.007</b>
Over-identification subscale	.361	<b>0.000</b>
Self-Compassion Scale Total	-.358	<b>0.000</b>

**Table 5.** Predictor of WDEQ-A among pregnant women

	B	SE	$\beta$	t	p value
Self-compassion scale	-13.137	3.354	-.362	-3.917	<b>.000</b>

(R = 0.362; R<sup>2</sup> = 0.131, F<sub>(1, 103)</sub> = 15.340, p<.001).

## Discussion

Fear of childbirth may affect psychosocial health, labor and the postpartum period negatively and cause restlessness and tension during pregnancy (Storksen et al., 2012). In this study, the average W-DEQ A score of pregnant women was 74.51±34.18 (range 0-165), and 49% of pregnant women had clinical level fear of childbirth. In studies conducted with the same scale in different countries around the world, the average score clinical level fear of childbirth was found to be 17.8 % in Sweden (Persson et al., 2020), 23.1% in Slovenia, severe fear of childbirth was 5.3% and high fear of childbirth was 36.7% in Ireland (O'Connell et al., 2019). In a systematic review, the clinical level fear of childbirth rates measured by seven studies using W-DEQ with ≥85 cut-off point was found varied from 6.3 to 14.8% (Nilsson et al., 2018). In previous studies in Turkey, the fear of childbirth scores of pregnant women examined by Erkaya et al. (2017) were 63.83, while Barut and Ucar (2018) found 73.31, and Korukcu et al. (2012) found that 41.1% of pregnant women had clinical level fear of childbirth. The findings of the study are similar to some of the literature findings, but different from

others. It is thought that this difference is caused by many factors such as cultural factors, the quality of health services provided during pregnancy and childbirth, and the socioeconomic characteristics of women.

Self-compassion can be viewed as a useful emotional regulation strategy, in which painful or distressing feelings are not avoided but are instead held in awareness with kindness, understanding, and a sense of shared humanity (Neff, & Germer, 2013). Individuals who are self-compassionate demonstrate better psychological health than those who lack self-compassion, and another strength of being self-compassionate is the ability to cope effectively with life stressors (Neff, & Germer, 2013). In this study, there were negative significant correlations between the scores of W-DEQA and the total self-compassion score (r=-.358) and subscale scores including self-kindness (r=-.358), mindfulness (r=-.261), and common humanity (r=-.361), but there were positive significant correlations with self-judgment (r=.361), isolation (r=.350), and over-identification (r=.361), (see Table 3). When the results related to the significance of regression coefficients are investigated, it appeared self-

compassion was a significant predictor of fear of childbirth ( $p < .001$ ).

In the literature, no study examining the fear of childbirth and self-compassion together could be found; however, there are studies investigating the relationship between stress, anxiety, depression, mindfulness and self-compassion during pregnancy. Marques et al. (2017) found that preliminary results emphasized the protective role of self-compassion abilities in psychological distress in the perinatal period. Goutaudier et al. (2019) indicated that self-efficacy, self-esteem and optimism were negatively and significantly associated with fear of childbirth. Felder et al. (2016) reported that self-compassion was significantly lower in pregnant and postpartum women with high depression and anxiety symptom severity. Gao et al. (2015) determined that pregnant Chinese women had moderate levels of childbirth fear, state anxiety and trait anxiety were correlated with childbirth fear, childbirth self-efficacy was correlated with childbirth fear, and trait anxiety, state anxiety, age and miscarriage were predictors of childbirth fear. Korukcu et al. (2017) stated that there was no correlation between fear of childbirth scores of pregnant Turkish women and psychosocial health assessment scores during pregnancy. Lazoglu and Apay (2018) found that pregnant Turkish women with low fear of childbirth had higher levels of self-efficacy perception.

Cohen (2010) found that prenatal self-compassion predicted a considerable amount of the variance in postnatal depression and anxiety, which was in turn associated with postnatal attachment. Prenatal self-compassion and mindfulness together predicted significant variance in prenatal attachment, which was also associated with postnatal attachment. Preventative interventions for postnatal depression and anxiety may benefit from an emphasis on enhancing self-compassion (Cohen, 2010). A previous study showed that mindfulness and self-compassion had a significant role on depression among pregnant women (Fourianalisyawati et al., 2018). The literature supports the results of this study.

There are some limitations of the study. Although there is significant correlation between self-compassion and fear of childbirth, the cross-sectional design of this study hinders our ability to make causal inferences and is an important limitation. To distinguish the temporal order of

these relationships, further longitudinal study is required.

**Conclusions:** In conclusion, we found almost half of the pregnant women had clinical fear of childbirth. There were negative correlations between self-compassion and fear of childbirth among pregnant women in this study, and self-compassion was a significant predictor of fear of childbirth. Health professionals should ask pregnant women in terms of fear of childbirth and self-compassion, and should reveal the causes of childbirth fear and self-compassion levels among pregnant women. Interventional studies to increase self-compassion are recommended to reduce the fear of childbirth among pregnant woman.

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## References

- Akin U, Akin A, Abaci R. (2007). Self-compassion scale: The study of validity and reliability. Hacettepe University Journal of Education, 33: 01-10.
- Baer RA, Lykins ELB, Peters JR. (2012). Mindfulness and Self-Compassion as Predictors of Psychological Wellbeing in Long-Term Meditators and Matched Nonmeditators. The Journal of Positive Psychology: Dedicated to Furthering Research and Promoting Good Practice, 7: 230-238.
- Barut S, Ucar T. (2018). Relationship between childbirth self-efficacy and fear of childbirth. Mersin University Journal of Health Sciences, 11:107-115.
- Cohen JS. (2010). Mindfulness and self-compassion in the transition to motherhood: a prospective study of postnatal mood and attachment. Columbia University, 101, 3447974.
- Erkaya R, Karabulutlu O, Calik KY. (2017). Defining childbirth fear and anxiety levels in pregnant women. Procedia-Social and Behavioral Sciences 237: 1045-1052.
- Felder JN, Lemon E, Shea K, Kripke K, Dimidjian S. (2016). Role of self-compassion in psychological well-being among perinatal women. Archives of Women's Mental Health, 19: 687-690.
- Fenwick J, Toohill J, Creedy DK, Smith J, Gamble J. (2015). Sources, responses and moderators of childbirth fear in Australian women: A qualitative investigation. Midwifery, 31: 239-246.
- Fourianalisyawati E, Uswatunnisa A & Chairunnisa A. (2018). The role of mindfulness and self compassion toward depression among pregnant women. International Journal of Public Health Science, 7:162-167.

- Gao LL, Liu XJ, Fu BL, Xie W. (2015). Predictors of childbirth fear among pregnant Chinese women: A cross-sectional questionnaire survey. *Midwifery* 31: 865-870.
- Goutaudier N, Bertoli C, Séjourné N, Chabrol H. (2019). Childbirth as a forthcoming traumatic event: pretraumatic stress disorder during pregnancy and its psychological correlates. *Journal of Reproductive and Infant Psychology*, 37: 44-55.
- Korukcu O, Kukulcu K, Firat MZ. (2012). The reliability and validity of the Turkish version of the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) with pregnant women. *Journal of Psychiatric Mental Health Nursing*, 19: 193-202.
- Korukcu O, Deliktas A, Aydin R, Kabukcuoglu K. (2017). Investigation of the relationship between the psychosocial health status and fear of childbirth in healthy pregnancies. *Clinical and Experimental Health Sciences*, 7: 152-158.
- Koroglu CO, Surucu SG, Vurtec BA, Usluoglu F. (2017). The fear of labor and the roles of midwives. *Life:International Journal of Health and Life-Sciences*, 3: 51-64. <https://doi.org/10.20319/ijhls.2017.32.5164>
- Lazoglu M, Apay SE. (2018). Does fear of giving birth impact the self-efficacy perceptions of a pregnant women. *Eastern Journal of Medical Sciences*, 3(4):70-75.
- Marques C, Martins MJ, Marques M, Pereira AT. (2017). Self-compassion and perinatal depression. Ed: Gary Anderson, in: *Postpartum Depression: Prevalence, Risk Factors and Outcomes*, Nova Science Publishers.
- Matinnia N, Faisal I, Hanafiah Juni M, Herjar AR, Moeini B, Osman ZJ. (2015). fears related to pregnancy and childbirth among primigravidae who requested caesarean versus vaginal delivery in Iran. *Maternal and Child Health Journal*, 19:1121–1130.
- Neff KD. (2003a). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, 2: 85-101.
- Neff KD. (2003b). The development and validation of a scale to measure self-compassion. *Self and Identity*, 2: 223-250.
- Neff KD, Hsieh Y, Dejitterat K. (2005). Self-compassion, achievement goals, and coping with academic failure. *Self and Identity*, 4: 263-287.
- Neff KD, Germer CK. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of Clinical Psychology*, 69: 28-44.
- Nilsson C, Hessman E, Sjöblom H, Dencker A, Jangsten E, Mollberg M, ... & Begley, C. (2018). Definitions, measurements and prevalence of fear of childbirth: a systematic review. *BMC Pregnancy and Childbirth*, 18(1), 28.
- O'Connell MA, Leahy-Warren P, Kenny LC, O'Neill SM, Khashan AS. (2019). The prevalence and risk factors of fear of childbirth among pregnant women: A cross-sectional study in Ireland. *Acta Obstetrica et Gynecologica Scandinavica*, 98:1014-1023.
- Persson A, Lindmark S, Petersson K, Gabriel E, Thorsell M, Lindström K et al. (2020). Potentially traumatic events, fear of childbirth and posttraumatic stress disorder during pregnancy in Stockholm, Sweden: a cross-sectional study. *Sexual & Reproductive Healthcare*, 25:100516.
- Storksen HT, Eberhard-Gran M, Garthus-Niegel S, Eskild A. (2012). Fear of childbirth; the relation to anxiety and depression. *Acta Obstetrica et Gynecologica Scandinavica*, 91:237-242.
- Storksen HT, Garthus-Niegel S, Adams SS, Vangen S, Eberhard-Gran M. (2015). Fear of childbirth and elective caesarean section: a population-based study. *BMC Pregnancy Childbirth*, 15:221.
- Stützer PP, Berlit S, Lis S, Schmahl C, Sütterlin M, Tuschy B. (2017). Elective caesarean section on maternal request in Germany: factors affecting decision making concerning mode of delivery. *Archives of Gynecology and Obstetrics*, 295:1151-6.
- Hacettepe University Institute of Population Studies. (2019). 2018 Turkey Demographic and Health Survey. Hacettepe University Institute of Population Studies, T.R. Presidency of Turkey Directorate of Strategy and Budget and TÜBİTAK, Ankara, Turkey. [http://www.hips.hacettepe.edu.tr/eng/tdhs2018/TDHS\\_2018\\_main\\_report.pdf](http://www.hips.hacettepe.edu.tr/eng/tdhs2018/TDHS_2018_main_report.pdf)
- Veringa IK, de Bruin EI, Bardacke N, Duncan LG, van Steensel FJ, Dirksen CD, Bögels SM. (2016). 'I've Changed My Mind', Mindfulness-Based Childbirth and Parenting (MBCP) for pregnant women with a high level of fear of childbirth and their partners: study protocol of the quasi-experimental controlled trial. *BMC Psychiatry*, 16:1-14.
- Wijma K, Wijma B, Zar M. (1998). Psychosomatic aspects of W-DEQ: A new questionnaire for measurement of fear of childbirth. *Journal of Psychosomatic Obstetric Gynaecology*, 19: 84-97.
- World Health Organization (2015). Statement on caesarean section rates. Accessed from: 29.11.2020, [https://www.who.int/reproductivehealth/publications/maternal\\_perinatal\\_health/cs-statement/en/](https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/cs-statement/en/)