



From experiences to expectations: A quantitative study on the fear of childbirth among multigravida women

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ABSTRACT

There is a strong relationship between women's previous birth experiences and their predetermined expectations. Childbirth expectations play an important role in the women's response to the birthing experience and postpartum period. The negative emotions and expectations, such as fear of childbirth, may result in negative experiences in subsequent childbirths. The aim of this study is to examine the relationship between previous birth experiences and the fear of childbirth in current pregnancy. A sample of 309 healthy women with normal pregnancies was recruited for this study. A chi-square test of independence and a multinomial logistic regression were used to explain the association between previous birth experiences and the fear of childbirth in current pregnancy. The level of childbirth fear that pregnant women feel appears to differ based upon their previous pregnancy experiences. Pregnant women who describe their previous births as happy and proud tend to experience a moderate level of childbirth fear about their current pregnancies, whereas pregnant women who remember their previous births as either fearful or painful have lower levels of childbirth fear. The level of childbirth fear tends to decrease as pregnant women have more children. Gestational week does not seem to be influential on the level of childbirth fear. According to the findings of this study, counterintuitively there is a negative relationship between the previous birth experience and childbirth fear. The level of childbirth fear is lower for pregnant women who remember their previous births as a negative experience compared to those who remember their previous births positively.

Introduction

Literature review

Parturition is the great transitional event in the reproductive cycle of a woman. Apart from the natural causes of apprehension and doubt in the ordinary human being, a woman who is about to have a baby is subject to fear-producing factors peculiar to the stage of pregnancy and childbirth (Dick-Read, 2009). The fear of childbirth, which is also known as tokophobia in the literature (Hofberg & Brockington, 2000), has been described as a form of anxiety caused by the forthcoming birth (Lukasse et al., 2014). From a very early age, girls become aware of the accepted teaching that having a baby is a dangerous and painful procedure (Rouhe, Salmela-Aro, Halmesmäki, & Saisto, 2009).

There is a link between women's upcoming birth experiences and their predetermined expectations (Hauck, Fenwick, Downie, & Butt, 2007). Parity is one of the most important factors that can influence the contents of fear in childbirth process (Størksen, Garthus-Niegel,

Vangen, & Eberhard-Gran, 2013). Worries about the health of the baby, fear of losing the baby, fear of intolerable pain during labour, and fear of prolonged labour are the most common reasons of fear among primigravida women (Kızılrnak & Başer, 2016; Smarandache, Kim, Bohr, & Tamim, 2016). In contrast, childbirth fear among multiparous women is often based on their previous birth experiences, such as the fear of obstetric injuries during labour, loss of control, insufficient support, and an inability to cope with labour (Eriksson, Jansson, & Hamberg, 2006; Hauck et al., 2007; Størksen et al., 2013). On the other hand, owning and believing in birth as a natural event, satisfaction with the birth process and outcome, and involvement and participation in the birthing experience are the important effects of positive birth attitudes for both primigravida and multigravida women (Hauck et al., 2007). Sluijs, Cleiren, Scherjon, and Wijma (2015) stated that women with childbirth fear in pre-partum tend to have higher levels of childbirth fear in post-partum, regardless of what obstetric complications they had to cope with. Women who suffer from severe childbirth fear typically need professional support for a healthy transition to motherhood.

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There is a strong relationship between the fear of childbirth and negative birth outcomes. They both affect maternal psychological wellbeing, adaptation to motherhood, lower self-rated health, persistent memory of pain, and the quality of the mother's relationship with the infant (Pazzagli et al., 2015; Smarandache et al., 2016). Størksen et al. (2013) found that the association between a previous negative birth experience and childbirth fear was greater than the association between previous obstetric complications and childbirth fear. According to the results of their study, women who had experienced obstetric complications were more likely to have had a negative overall birth experience and to develop a fear of childbirth; however, the majority of women who experienced obstetric complications did not have a negative overall birth experience and did not develop a fear of childbirth (Størksen et al., 2013). A woman's birth experience can influence her physical and mental well-being long after the birth of her child (Niebler, Documét, Chaves-Gnecco, & Guadamuz, 2016). Furthermore, a negative birth experience has been shown to be associated with prolonged labour and elective cesarean section (Saisto & Halmesmäki, 2003; Smarandache et al., 2016).

Childbirth is one of the most important developmental transitions in a woman's life (Korukcu, Bulut, & Kukulu, 2016). To date, there has been limited research about the effects of previous childbirth experiences on Turkish women's fear of childbirth during their current pregnancies. Therefore, this study aims to examine the effects of previous birth experience(s) of Turkish women on the fear of childbirth in current pregnancy. The findings of this study will provide psychosomatic evidence about the effects of previous birth experiences on the fear of childbirth in current pregnancy and help pregnant women understand the causes of their childbirth fear during their transition to motherhood process. In addition, the findings of this study will be helpful for healthcare practitioners in promoting positive attitudes towards childbirth among pregnant women.

Theoretical framework

The Mercer's Maternal Role Attainment Theory, which is a client-oriented theory that adapts to each mothers' individual needs, was used in the theoretical framework of this study to determine the effect of previous birth experiences on the level of childbirth fear in current pregnancy. Mercer (2004) states that the transition-to-motherhood process emerges with each newborn child. This view is the starting point for planning the current research.

Reva Rubin first developed the theory on maternal identity and role attainment in 1967, which was taken and expanded upon by Mercer (Mercer, 2004; Noseff, 2014). Following that theory, the midwife's or nurse's role is seen as helping women adapt to the "maternal role" (Hung, Yu, Chang, & Stocker, 2011). The philosophy of this perspective locates the pregnant woman at the centre of the process and places midwives or nurses in an ideal position to draw upon the concept of maternal representations in order to support not only a woman's physical transition to motherhood, but also her psychological transition to motherhood (Meighan, 2013; Mercer, 2004). In the light of this theory, researchers wanted to pay attention to the psychosocial health of multiparous women in transition to motherhood process. Every birth journey is unique and maternal birth experiences, expectations, and perceptions may affect a woman's subsequent pregnancies (Korukcu et al., 2016). Therefore, this study will seek for evidence of the influence of past experience of multiparous women on future pregnancies and level of fear of childbirth.

Methods

Study population

A sample of 309 healthy women with normal pregnancies was recruited in this study. Data were collected from pregnant women

through a paper-and-pencil survey and face-to-face interviews when they were attending the routine scan at the Antalya Training and Research Hospital between June and December 2015. The following selection criteria were used to recruit the participants of this study: (1) being a multigravida; (2) visiting to the Antalya Training and Research Hospital for routine controls; (3) gestational ages of between 28 and 40 weeks with a healthy baby; (4) being 18 years or older; (5) having no psychiatric or chronic disease; and (6) reading, writing, speaking, and understanding Turkish proficiently.

Instruments

The fear of childbirth during pregnancy was measured by the Wijma Delivery Expectancy/Experience Questionnaire - version A (WDEQ-A). The W-DEQ-A is a 33-item questionnaire, with each item being scored as 'not at all' (0) to 'extremely' (5) (Wijma, Wijma, & Zar, 1998). In addition to the items in the W-DEQ-A, each participant responded to a set of demographic questions about age, occupation, socioeconomic status, education, and obstetric history and parity. Coefficient alpha reliability coefficient of the W-DEQ-A was 0.88 for primigravida women and 0.90 for multiparous pregnant women in a validity and reliability study conducted by Korukcu, Kukulu, and Firat (2012). In this study, the reliability of the WDEQ-A was 0.84, suggesting a high level of reliability for the instrument (Korukcu, Firat, & Kukulu, 2010).

The total scores in the WDEQ-A can be computed by summing up individual item scores for each participant. This process results in a minimum score of zero and a maximum score of 165. A higher score indicates a more intense fear of childbirth. To place all of the items in the same direction, the positively worded items (item 2, 3, 6, 7, 8, 11, 12, 15, 19, 20, 24, 25, 27, 31) need to be reversed coded before the calculation of the participating women's total score in the WDEQ-A (Wijma et al., 1998).

Ethical considerations

A written permission letter from the Head Physician's Office in the Antalya Training and Research Hospital was obtained for the study. The Antalya Training and Research Hospital Scientific Research Assessment Board reviewed the proposed study and provided ethics approval for the implementation of the study. The objective of the study was explained to the pregnant women who were eligible to participate in the study, and the written consents were obtained from those who accepted to take part in the study.

Data analysis

The analysis of the data began with the calculation of the participants' scores in the WDEQ-A. Fig. 1 shows that the WDEQ-A scores obtained from the participants of this study were normally distributed ($M = 68.26$, $SD = 19.24$). Next, the W-DEQ-A total scores were used to categorize pregnant women based on the level of fear that they feel about their current pregnancy as follows: zero to 60 points indicating low fear of childbirth, 61 points to 84 points indicating moderate fear of childbirth, and 85 points or above indicating severe fear of childbirth (Korukcu et al., 2010; Nieminen et al., 2017). Table 1 shows a demographic summary of the participants in the sample of this study by their level of fear based on the WDEQ-A scores.

The categorization of the WDEQ-A total scores as low, moderate, and high was necessary because (1) the categorical scale of WDEQ-A reflects more meaningful differences between pregnant women than the continuous scores from WDEQ-A; (2) regression-based analyses based on continuous WDEQ-A scores were not feasible due to the lack of empirical evidence suggesting a linear relationship between the fear of childbirth and how previous pregnancy experiences are remembered (i.e., proudly, happily, in pain, or in fear); and (3) categorical data analysis was a more suitable option for identifying the relationship

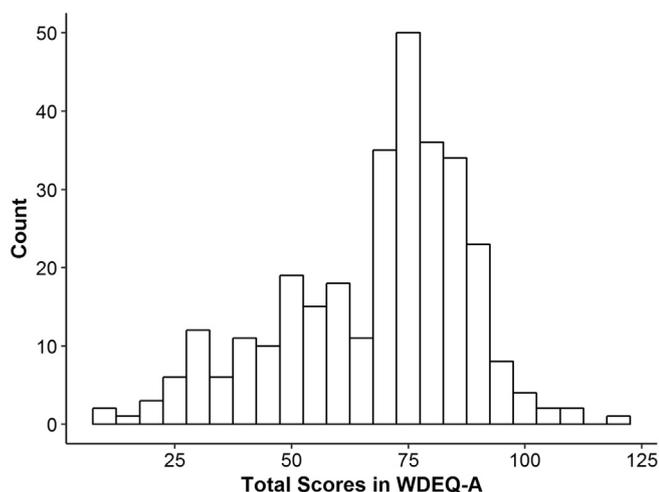


Fig. 1. Distribution of the total scores in WDEQ-A.

Table 1

Demographic summary of the participants in the study.

Demographic variables		Level of fear					
		Low		Medium		High	
		N	%	N	%	N	%
Age	18–19	0	0	17	65.4	9	34.6
	20–24	24	22.4	65	60.8	18	16.8
	25–29	31	32.0	50	51.5	16	16.5
	30–34	20	44.4	18	40.0	7	15.6
	35–39	15	50.0	6	20.0	9	30.0
	40–44	4	100	0	0	0	0
	45 or older	0	0	0	0	0	0
Education	Primary school	41	33.6	57	46.7	24	19.7
	Middle school	26	43.3	20	33.3	14	23.4
	High school	19	19.4	65	66.3	14	14.3
	College degree	8	29.6	13	48.1	6	22.3
	Graduate degree	0	0	0	0	0	0
	Illiterate	0	0	1	50.0	1	50.0
Number of children	1	51	23.0	129	58.1	42	18.9
	2	31	44.3	25	35.7	14	20.0
	3	10	71.4	1	7.1	3	21.5
	4	1	50.0	1	50.0	0	0
	5	1	100	0	0	0	0
	6	0	0	0	0	0	0
Duration of pregnancy	30 weeks or less	30	31.6	44	46.3	21	22.1
	31–34 weeks	12	16.9	42	59.2	17	23.9
	35–38 weeks	26	44.1	24	40.7	9	15.2
	> 38 weeks	26	31.0	46	54.8	12	14.2
Total		94	30.4	156	50.5	59	19.1

between childbirth fear and previous experiences for pregnant women with severe childbirth fear as the size of this group was quite small compared to the rest of the sample (see Fig. 1).

To examine the relationship between the pregnant women's level of fear (i.e., low, medium, or high) regarding their current pregnancy and how they remember their previous pregnancy experiences (i.e., proudly, happily, in pain, or in fear), two statistical procedures were implemented. The participating women's level of fear based on the WDEQ-A scores and their responses to the question of how they remember their previous childbirth experiences were used as the dependent and independent variables, respectively. First, a chi-square test of independence was used to examine whether the two categorical variables are significantly associated with each other. Second, given the statistically significant association, a multinomial logistic regression was used to predict the level of fear for current pregnancy (dependent variable) using the perception of past pregnancy experiences (independent variable). In the multinomial logistic regression model, the

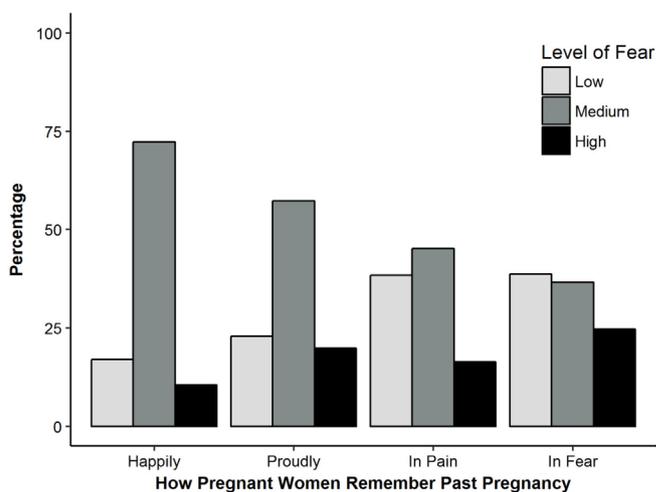


Fig. 2. Percentages of pregnant women by the level of childbirth fear and how they remember their previous pregnancy.

number of prior pregnancies was included as a covariate to control for its effects on the level of childbirth fear.

Results

Fig. 2 shows the percentages of the pregnant women by the two variables used in this study (i.e., the level of childbirth fear and the recall of previous pregnancies). Most of the participants who remember their past pregnancy experiences either happily or proudly indicated a medium level of fear regarding their current pregnancy. Unlike these participants, the participants who remember their past pregnancy experiences as either fearful or painful mostly indicated either low or medium levels of fear about their current pregnancy.

Table 1 shows that 30.4% of multiparous pregnant women indicated low-level childbirth fear, 19.1% of them indicated high-level childbirth fear; and the majority of the participants (50.5%) indicated moderate-level childbirth fear. Most pregnant women who have only one child indicated moderate fear of birth, whereas pregnant women with 2 and more children indicated low-level birth fear about their current pregnancy. This finding suggests that the level of childbirth fear tends to decrease as pregnant women have more children. Finally, gestational week does not seem to be influential on the level of fear of childbirth.

To test the strength of the association, a chi-square test of independence was conducted. The result of the chi-square test showed that there was a statistically significant association between the level of fear that pregnant women feel about their current pregnancy and their past pregnancy experiences, $\chi^2(26) = 21.068, p < .05$. This finding suggests that pregnant women's level of childbirth fear tends to vary depending on their past pregnancy experiences. The Spearman correlation between the level of fear about current pregnancy and their past pregnancy experiences indicated a negative relationship ($r_s = -0.17, p < .05$). In addition, Cramer's V, which tests the strength of association between categorical or ordinal variables, indicated that the strength of association between the level of fear for current pregnancy and feelings about previous pregnancy/birth experiences was moderate ($V = 0.185, p < .002$).

Next, a multinomial logistic regression model was used to predict the effects of previous pregnancy experiences on the level of childbirth fear for the current pregnancy. The “medium” level fear was selected as the baseline (i.e., reference) category in the dependent variable. That is, a positive regression coefficient for previous pregnancy experiences would suggest that the log odds of being in the low-level fear or high-level fear categories is higher than the log odds of being in the medium-level fear category. In addition, the “in pain” category was selected as the baseline category in the independent variable. That is, the estimated

Table 2
Multinomial logistic regression results.

Level of fear		β	S.E.	exp(β) ^{**}
Low fear	Intercept	0.057	0.239	
	Happily	−1.504*	0.460	0.222
	Proudly	−0.973*	0.348	0.378
	In fear	−0.221	0.351	0.801
High fear	Intercept	−0.391	0.270	
	Happily	−1.526*	0.270	0.217
	Proudly	0.672	0.379	0.511
	In fear	−0.621	0.432	0.538

Note: Level of fear was determined based on the WDEQ-A total scores as: low = 0 to 60 points; moderate = 61 to 84 points; severe = 85 points or above. “In pain” was chosen as the reference category in previous childbirth experiences (happily, proudly, in fear, in pain).

* $p < .05$.

** exp is the exponential of β to transform the regression coefficient to an odds ratio.

effects for the other categories (happily, proudly, or in fear) would be relative to the “in pain” category.

Table 2 shows the results of the multinomial logistic regression analyses. The results indicated that the log odds of having a “low” level of fear vs. a “medium” level of fear decrease if the pregnant women's previous experiences change from “in pain” to “happily” or “proudly”. That is, pregnant women who remember their previous pregnancies positively (i.e., either happily or proudly) are more likely to have the medium level of birth fear than the low level of birth fear. There was no significant effect of moving from “in pain” category to “in fear” on the likelihood of being in the low fear category vs. the medium fear category. The results were slightly different for the comparison of “high” fear against “medium” fear. As pregnant women's previous pregnancy experiences change from “in pain” to “happily”, the log odds of having a “low” level of fear vs. a “medium” level of fear decrease. That is, pregnant women who describe their previous pregnancy as a happy experience are more likely to have the medium-level fear than the low-level fear. Unlike the findings for the low-level fear, changing from “in pain” to “proudly” in previous pregnancy experiences does not appear to have a significant impact. Similarly, the “in fear” category was not statistically influential on the log odds of having a high level of fear vs. a low level of fear.

Discussion

Previous studies reported that the state of experiencing fear of childbirth in current pregnancies of multiparous women is related to what they have experienced before (Sluijs et al., 2015). Severe childbirth fear can be experienced by pregnant women because of their previous birth experiences, and these women can encounter birth trauma in their future pregnancies (Nilsson, Bondas, & Lundgren, 2010). Multiparous pregnant women with negative birth experiences tend to remember their births as fearful and they express negative feelings about their previous births (Fenwick, Toohill, Creedy, Smith, & Gamble, 2015; Nilsson et al., 2010). Negative birth experiences also are associated with less fulfilling, being less satisfied with birth and reporting less emotional wellbeing after birth in future pregnancies (Turkstra et al., 2017). This notion necessitated the planning of the current study.

In this study, 30.4% of multiparous pregnancies were in the low birth fear category, 50.5% of them were in the medium birth fear category, and 19.1% were in the high birth fear category. Furthermore, most of the pregnant women who had severe birth fear about their current pregnancy were 18–19 years old. In the literature, it has been specified that young mother age is an important factor that may lead to an increase in the level of childbirth fear (Rouhe et al., 2009; Størksen et al., 2013; Räisänen et al., 2014; Nieminen et al., 2017). Our findings

are aligned with the existing literature about the relationship between age and the level of birth fear. Being a mother adds a social value to a woman in the Turkish culture, and birth gives the woman a new identity and a social status among her family members, relatives, friends, and the community (Korukcu et al., 2016). The results of the study can be explained with opinions of Turkish women about childbirth. Even if mothers had negative birth experiences, they might disregard their bad memories and meet their future pregnancy with happiness and gratefulness. Furthermore, Mercer (2006) stated that the transition-to-motherhood process emerges with each newborn child. Mothers' previous birth experience can increase self-confidence and ability to overcome a difficult situation, such as the birth (Korukcu et al., 2016). New roles and responsibilities after childbirth may contribute to the psychological maturation and growth of mothers.

This study also indicated that pregnant women who experienced a high level of birth fear in their previous pregnancies are more realistic in their future pregnancies and know what to expect from their births (Räisänen et al., 2014; Fenwick et al., 2015). Størksen et al. (2013) argued that pregnant women who remember their previous births as fearful or painful might struggle with coping with issues in their future pregnancies. The results of the work done by Fenwick et al. (2015) also support this claim. Some of the pregnant women who had negative experiences in their previous births appear to be stronger in their current pregnancies and they have a longer-term experience that can allow them coping with the problems of the pregnancy (Räisänen et al., 2014; Fenwick et al., 2015). Unlike this finding, this study showed that the level of childbirth fear experienced by pregnant women who remember their past births negatively was lower than those who remember their past births positively.

A large-scale study with 6870 pregnant women from Sweden, Norway, Denmark, Belgium, Iceland, and Estonia showed that multi-gravida women with negative birth experiences are five times more likely to have childbirth fear than pregnant women who had normal pregnancies (Lukasse et al., 2014). On the other hand, there are other studies that suggest the previous birth experiences of multiparous women have no effect on the level of childbirth fear in the current pregnancy (Fenwick et al., 2015; Toohill, Fenwick, Gamble, & Creedy, 2014). In our study, it has been shown that most of the pregnant women who remember their previous births happily or proudly have a medium-level birth fear, whereas those who remember their previous births in fear or in pain have a lower level of birth fear (see Fig. 2). According to the results of the study, it was determined that the negative experience of past births did not cause birth fear in their present pregnancy. Given that each pregnancy is considered unique, the causes of childbirth fear of multiparous women can be different from each other, and the pregnancy can lead to different experiences for multiparous women (Fenwick et al., 2015).

There is a common belief that multiparous women would have different expectations because of their previous experiences of giving birth. However, previous studies surprisingly indicated no significant differences in the frequency of different expectations between nulliparous and multiparous women except for the variables of ‘body control in labour’ and ‘control of health decisions’ (Ayers & Pickering, 2005; Fenwick et al., 2015; Gibbins & Thomson, 2001; Toohill et al., 2014). In our study, we found that the level of childbirth fear experienced by multiparous pregnant women who remember their past births negatively is lower than those who remember their past births positively. Along with their expectations of childbirth, multiparous women can develop feelings about how they will cope with labour (Gibbins & Thomson, 2001). However, each childbirth is unique and over-generalizations about childbirth based on the judgments about past experiences should be avoided. A meeting with the midwife who provided care in labour can help women fully understand the events of labour and birth and to help either prevent or identify adverse emotional outcomes (Gibbins & Thomson, 2001). Multiparous pregnant women should clearly talk to their midwives and nurses about the excitement,

fear, and anticipation of their new pregnancy. In addition, they should be aware of the effect of past experiences on coping processes.

It is an important midwifery/nursing duty to identify factors that make multiparous women feel confident to enable women's experiences of childbirth to be satisfying, fulfilling and positive (Fenwick et al., 2015; Gibbins & Thomson, 2001). The simple act of inviting pregnant or postpartum women to talk about their childbirth expectations or experiences is, for most of them, already therapeutic in itself (Van Bussel, Spitz, & Demyttenaere, 2010). Given that past experiences predict expectations, the development of optimistic expectations may be used as a prevention strategy to reduce negative outcomes (Van Bussel et al., 2010). Healthcare professions should investigate post-natally how women feel about their experiences (Gibbins & Thomson, 2001).

Implication for future practice

This study has several implications for birth practitioners and women about the effects of past experiences on future pregnancies in multiparous women. This study indicated that negative childbirth experiences in the past had led to lower levels of childbirth fear in next pregnancies among multiparous women. This finding could imply two possibilities: either expectations are too optimistic, or the provided antenatal care is of good quality. However, it is not possible to tell from our data whether this is due to the type of care provider. Thus, further research is necessary to find out which factors are crucial, and whether it is a matter of culture or social structure.

Mercer (2004) emphasized that nurses and midwives are the most communicative people with mothers in maternity circles, and that they have an important role to play in protecting the health of the mothers and babies. Birth practitioners should be encouraged to listen to women, validate their feelings on labour pain, and support them to the best of their abilities. Exploring multiparous women's birth experiences on the level of childbirth fear in current pregnancy is important to gain a better understanding of childbearing multiparous women's care needs and necessary for women-centred care. This study will remind nurses and midwives that each pregnancy is unique, and thus, deserves a new starting point for multiparous women. Furthermore, the results of this study will help nurses and midwives to understand the previous birth experiences of multiparous mothers on the current birth expectations and to plan women-centred nursing/midwifery care.

Limitations

The limitations of our study should be addressed. One limitation was that the study was conducted at a single centre and the sample group was small. As in similar research studies, the study sample was composed only of those women willing to take part in a research trial. The study did not include women who do not speak and write Turkish. Because of the sample size, the results cannot be representative of the entire Turkish population. This will also affect the generalizability of the results. Furthermore, in order to ensure a homogenous sample, and taking into account that the experiences during the process of transition to motherhood vary in each pregnancy, only multiparous were included in the study.

Conclusion

The exploration of women's experiences and expectations of childbirth, along with the investigation of how they prepare for childbirth, is important to help pregnant women better prepare for labour. Previous negative birth experiences may lead to some negative feelings – such as fear, anxiety, posttraumatic stress disorders, depressive symptoms, loneliness, anger, grief, decreased belief in ability to deliver, and reduced reliance on caregivers (Nilsson et al., 2010). In conclusion, contrary to these findings, this study suggests that the level of childbirth

fear experienced by those who remember their previous births negatively is lower than the level of childbirth fear experienced by those who remember their previous births positively. Learning how to cope with labour pain and overcoming the fear of obscurity about birth might improve multiparous women's psychological wellbeing and childbirth fear in current pregnancy, even when they have negative birth experiences (Nilsson et al., 2010). Furthermore, the desire of pregnancy might be more important than negative birth experiences in forgetting about negative memories and preparing for a new pregnancy (Poggi, Goutaudier, Séjourné, & Chabrol, 2018). Midwives should be aware about pregnant women who experienced a negative birth in their previous pregnancies might be more realistic in their future pregnancies and know what to expect from their births. In many cultures, child-bearing is viewed as the meaning of life and being a mother is the most important role acquisition for a woman.

In conclusion, women's previous birth experiences may influence their future pregnancies. Childbirth fear can persist through the postpartum period and health care professions need to be alert to addressing this through sensitive discussions with women about the birthing experience and their thoughts concerning future births. In Turkey, there is a need for studies that would enable the standardization of care services and the establishment routine psychosocial health assessment for perinatal mental health of women. The results of present study might help to improve of awareness of health care professions about the effects of past birth experiences on future pregnancy and psychological wellbeing of women.

Conflict of interest

No potential conflict of interest was reported by the authors.

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