

# Examining the birth experiences of women with and without prenatal education: A qualitative study

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Received: 2020-11-22.

Accepted: 2020-12-05



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J Clin Med Kaz 2021; 18(1):57-63

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## Abstract

**Aim:** This qualitative study examines the intrapartum experiences of nulliparous Turkish women who participated childbirth education classes and only engaged in routine prenatal care.

**Material and methods:** The study was conducted in a Family Health Center in primary health care service in a metropolitan city in Turkey between October 2015 and June 2016. Women engaged in routine prenatal care (RPC group) (n=17) and women participating in childbirth education classes (CEC group) (n=14) at the maternity unit were included in the study via a purposive sampling method. Data were collected in semi-structured one-on-one interviews with participants. Data were collected by The Socio-Demographic and Obstetric Information Form and The Semi-Structured Interview Form. Number, percentage, mean and standard deviation were used to evaluate descriptive data.

**Results:** The average age of the 31 women participating was 29.33±3.75. Within the sample population, majority had an education level of university (67.74%) and a nuclear family structure (90.32%). There was no significant difference (p>.05) between the socio-demographic characteristics of both groups. Of the women participating in CEC, 92.8% in the lithotomy position; none of them received anesthesia. Within this group, 50% received no intervention during labor, while 42.86% received fundal pressure, and episiotomy was applied to 21.43% of participants. All women engaged only in RPC had their birth in the lithotomy position, and 11.76% of them received epidural anesthesia. Interventions applied included episiotomy (76.47%), induced labor (70.59%), fundal pressure (58.82%), continuous Non Stress Test (NST) (58.82%), continuous intravenous infusion (52.94%), and enema (47.05%). The statements analyzed were classified under four themes: (1) satisfaction, (2) compliance with birthing positions, (3) intrinsic concentration and (4) participant control of decision-making.

**Conclusion:** The childbirth education classes group reported that was implemented the less intrapartum intervention, greater satisfaction, fewer distractions, greater participation in active decision-making, and a greater tendency to use non-pharmacological methods. In contrast, the routine prenatal care group mostly reported passive participation, difficulty in pain and contraction control, and greater dissatisfaction.

**Key words:** birth, childbirth, labor, natural childbirth, qualitative research

## Introduction

The training provided to pregnant women and their partners by health care professionals has a key role in the antenatal period in coping with fears related to birth. These trainings aim to prepare expectant families for a natural birth, neonatal care, and parenting, and appear

under various names, such as childbirth/antenatal/prenatal education/preparation/training etc. Within the context of this study, Childbirth Education Classes (CEC) were defined as systematic and programmed preparation carried out with groups in classroom environments.

In recent years, the Ministry of Health has organized

informational classes for pregnant women and courses for professional healthcare trainers in Turkey. Although important policies have been developed and striking progress has been made in this field, the formal integration of CEC with the present health system is not widespread in the country [1-4]. Ninety-six percent of pregnant women receive prenatal care from healthcare professionals in Turkey [5].

There are many studies in the literature that investigate the effects of antenatal education on pregnancy, childbirth, and the postnatal period. Many studies revealed that when expectant mothers participated in antenatal training, the rate of cesarean birth decreased [6, 7] anxiety suffered at birth was reduced [8], fear about birth decreased, childbirth-related self-efficacy increased [9-11] mothers engaged in more active birth, and deliveries were less performed with epidural anesthesia. However, some other studies have demonstrated the ineffectiveness of this training [6, 8, 12, 13]. Nine randomized controlled trials on individual or group antenatal education that covered childbirth, parenthood, or both were evaluated by the Cochrane Collaboration systematic review [14]. The measured variables included knowledge acquisition, sense of control, factors related to infant-care competencies, and some labor and birth outcomes. In this systematic review, it was claimed that the general effects of antenatal education were not known to a great extent.

On the other hand, some studies have argued that antenatal education is associated with women acquiring more realistic expectations and a positive labor experience [15]. On the contrary, McCrea & Wright (1999)'s systematic analysis has highlighted that pain and self-control expectations conflicted with actual labor experiences in groups of women who participated in CEC. Insufficiencies, such as too much information given in a short time, educational content serving the preferences of trainers rather than the needs of women, insufficient time to discuss transferred information, and non-reinforcement of relevant theoretical information by practicing, may cause antenatal education to lose its efficacy are discussed in the literature [1, 16-18], also emphasize that there are differences among the aim, content, and time period of antenatal education programs, and suggest that the commonly adopted standards and rules are inadequate. Moreover, the attach importance to antenatal training by women, the acceptance of theoretical and practical knowledge taught in the training program, and the reflection of the knowledge gained from training to the birth process is closely related to individual beliefs and cultures. The quality of training may also be influenced by the ethnic, cultural, or religious background of the woman receiving the training [18, 19]. Therefore, antenatal training that is in alignment with cultural characteristics and changing needs may encourage active participation in labor, increase self-control, enable relaxation, and lessen cultural conflict, as well as anxiety [10, 20]. In this context, it is currently unknown whether Turkish women's gains in CEC are appropriate for their intrapartum requirements, and effects on intrapartum outcomes and birth experiences. The objective of this qualitative study is to compare the intrapartum experiences of women participating and not participating in systematically executed CEC.

## Material and methods

In this qualitative study, semi-structured interviews were conducted to examine the emotions, attitudes, and behaviors of both groups of women towards labor.

## Setting and sample

The study was conducted in a Family Health Center in primary health care service in a metropolitan city in Turkey between October 2015 and June 2016. Expectant families that registered to the family health center were invited to participate in systematic delivery preparation training during routine pregnancy follow-ups. Thirty-four couples agreed to participate in these training. Mothers who completed CEC training were invited to talk about their birth experiences, while maternal and child health follow-up on the seventh day after delivery. Only 14 women accepted the interview after birth and participated in the CEC group (14 out of 20 women who received ECC). Simultaneously, 17 women who did not participate in CEC training at the same family health center but agreed to share a one-to-one interview about delivery experience, constituted only Routine Prenatal Care (RPC) participants group (17 of 62 women who received RPC). Participants were chosen via purposive sampling method, and selected according to the following criteria: nulliparous women with single low-risk pregnancies, between 18 and 35 years of age, able to speak and understand Turkish, with no audial or vocal hinderance, and having a vaginal birth. The interviews were conducted until no new term or statement related to the research subject was found.

## Data collection forms

The *Socio-Demographic and Obstetric Information Form* was created by the researchers. The form includes questions such as age, occupation, level of education, family structure, frequency of prenatal monitoring and whether the pregnancy was planned.

The *Semi-Structured Interview Form* is a customization of the form used in qualitative research by Miquelutti, Cecatti, & Makuch (2013b) that explored the labor experiences of Brazilian women. The form includes eight open-ended questions about positive/negative experiences during the intrapartum process, labor satisfaction, methods of coping with pain-contractions-fear, perception of control, adopted labor position, birth room environment, received and perceived emotional support from family, friends and maternity staff, and feelings about interventions (oxytocin induction, vaginal examination, etc.) during the intrapartum period.

## Data collection

For the CEC group, the research process was conducted in two stages. The first stage involved providing 34 couples with training during the antenatal period. Free CEC training were conducted by the second researcher (owner childbirth educator and doula certificates) regularly for a total of 12 hours over four weeks. These training were attended by willing couples starting at the 20th gestational week. The CEC content and training techniques are provided in Table 1.

In the second stage, mothers who completed CEC training had a vaginal birth and wished to participate in the study were invited to talk about their birth experiences during routine maternal and child health follow-up on the seventh day after delivery in the family health center. Fourteen women accepted the in-depth interviews.

Simultaneously, semi-structured interviews were also conducted with 17 women in the RPC group, who did not participate in CEC training and met the criteria, and were willing to participate in the study.

Researchers were not included in the birthing processes of participants, and interviews were conducted at seventh days postpartum in a private room of the family health

centers. The *Socio-Demographic and Obstetric Information Form* was distributed to women who participate in the study before interview. After, semi-structured interviews that lasted approximately one hour were conducted. The interviews were recorded and converted into written form afterward.

## Analysis

The Socio-demographic data were analyzed using SPSS (Statistical Package for Social Sciences) 21 package program. Number, percentage, mean and standard deviation were used to evaluate descriptive data. Thematic analysis of the qualitative data was conducted. Thematic analysis was conducted in accordance with the recommendations of Braun and Clarke (2006) [21]. Each interview was listened to and recorded verbatim transcription. Important statements were highlighted on each transcription. The women's statements were coded by two researchers separately in order to increase the reliability of the analysis. Researchers came together, discussed areas of disagreement, and then formed a collective code list. From these established codes, appropriate themes were identified, interpreted, and defined.

## Ethical considerations

Institutional permissions were obtained before the research. The names of the participating women were kept confidential, and abbreviations were used during data collection (C for CEC participants, R of RPC receiving women). No experimentation has been done to the women who have accepted to participate, and the "informed form" has been approved verbally and in writing by each participant. Each phase of the study was carried out in accordance with the ethical principles of the "Helsinki Declaration". Furthermore, no direct or indirect material support has been obtained from any institution for the research, and no commercial products, medicines, equipment, etc. have been used.

## Results

The average age of the 31 women participating was 29.33±3.75. Within the sample population, majority had an education level of university (67.74%) and a nuclear family structure (90.32%). All women participating in the study experience their first birth. However, 6 of the women have a history of miscarriage. All women went to regular prenatal monitoring and delivered vaginally at the hospital between their 34th and 43rd gestational weeks. Of the pregnancies, 93.5% were planned by the parents. There was no significant difference ( $p>.05$ ) between the socio-demographic characteristics of both groups (Table 2).

Of the women participating in CEC, 92.8% in the lithotomy position; none of them received anesthesia. Within this group, 50% received no intervention during labor, while 42.86% received fundal pressure, and episiotomy was applied to 21.43% of participants. All women engaged only in RPC had their birth in the lithotomy position, and 11.76% of them received epidural anesthesia. All women in this group received some type of intervention during the intrapartum process. Interventions applied included episiotomy (76.47%), induced labor (70.59%), fundal pressure (58.82%), continuous Non Stress Test (NST) (58.82%), continuous intravenous infusion (52.94%), and enema (47.05%). The statements analyzed were classified under four themes: (1) satisfaction, (2) compliance with birthing positions, (3) intrinsic concentration and (4) participant control of decision-making (Table 3).

Table 1

Training Contents of Childbirth Education Classes

Visual Picture and Video Supported Interactive Training Techniques	
1-Physiology of labor	
2-The harmony of the body and infant	
3-Coping with fear of labor	
4-Ideal labor environment	
5-Labor support by fathers	
6-Interventions during labor	
Demonstration Techniques	
1-Active labor positions	
2- Breathing techniques	
3- Relaxation and imagery	
4- NPTPM	
Role Play and Dramatization Techniques	
1-Deep relaxation exercises	
2- Labor practice with affirmation statements	

Table 2

Participants Descriptive Results

Individual Characteristics	n	%
<b>Age</b>	29.33±3.75	Min: 20, Max: 35
<b>Education level</b>		
Primary school /Middle school	3	9.68
High school	7	22.58
University and above	21	67.74
<b>Family structure</b>		
Nuclear family	28	90.32
Extended family	3	9.68
<b>History of miscarriage</b>		
Yes	6	19.35
No	25	80.64
<b>Planned pregnancy</b>		
Yes	29	93.5
No	2	6.45
<b>Gestational week when the delivery occurs</b>		
34 weeks	1	3.22
36 weeks	2	6.45
37 weeks	5	16.13
38 weeks	4	12.90
39 weeks	8	25.81
40 weeks	5	16.13
41 weeks	5	16.13
43 weeks	1	3.22

### 1. Satisfaction

Participants were asked, "Were you satisfied with your labor experience? Was as you imagined it would be?" All women who participated in CEC (14) and a few of the women who had only RPC (3) stated that their labor experience was as they imagined.

*"My labor even took precedence over my wedding. It was beautiful and inexpressible" (C12).*

*"My daughter being healthy and cute made my labor beautiful" (R17).*

Although all women in the CEC group were satisfied with their birthing experiences, many noted that routine interventions, a crowded environment, and a lack of respect for their privacy make them feel uncomfortable and that they had some regrets.

*"I couldn't stay on my own for a long time, and this made me angry" (C7).*

*"...people who went in and out the room seemed to observe me" (C4).*

On the other hand, more than half of the women who had only RPC stated that they were dissatisfied and that they

Table 3

Distribution of Information about Birth Performed by Participants

	Women who constituted only Routine Prenatal Care		Women who participated Childbirth Education Classes	
	n	%	n	%
<b>Delivery Position</b>				
Lithotomy	17	100	13	92.8
Squatting	-	-	1	7.14
<b>Intervention during labor</b>	17	100	7	50
Epidural anesthesia	2	11.76	-	
Fundal pressure	10	58.82	6	42.86
Episiotomy	13	76.47	3	21.43
Induced labor	12	70.59	-	
Enema	8	47.05	-	
Continuous Non Stress Test (NST)	10	58.82	-	
Continuous intravenous infusion	9	52.94	-	

didn't have the labor experience they had imagined. The reasons for dissatisfaction that they mentioned included routine interventions, a crowded and remote environment, insufficient support from healthcare professionals, and disrespect to their privacy.

*"The place there was more crowded than I had expected, and the birth room was uninviting. I hadn't imagined it like that" (R4).*

*"Having many things done at the same time made me feel that people aren't cherished there" (R7).*

It is worth noting that, in contrast to these experiences, there were 6 women in the RPC group who reported feeling more comfortable as a result of routine interventions.

*"I can say that I felt even better with the interventions" (R9).*

Women from both the CEC (2) and RPC (7) groups stated that pain, fear, and anxiety during labor exceeded their expectations.

*"It was a little more painful than I had imagined" (C3).*

*"I didn't expect it to be so hard and difficult. I felt like dying" (R3).*

For women in both groups, the emotional support of family, their husbands, friends, and healthcare professionals, and postnatal skin-to-skin contact (SSC) with their newborn increased satisfaction.

*"I cannot say I gave birth alone. My husband, our doctor, the midwives there, my sister, and I, we made it all together" (C5).*

*"The most beautiful moments of my birth giving were my baby being brought next to me, watching its being cleaned up, holding its hand, and touching" (R11).*

## 2. Compliance with birthing positions

In the discussion about birthing positions, 11 women in the RPC group stated that they preferred the lithotomy position, and added they would prefer it in any later pregnancies as well; 6 women, however, stated they didn't know the effect of other positions on labor.

*"Can natural birth be done in a different position? I don't know" (R3).*

Eleven of the women in the CEC group stated they would prefer a standing or squatting position, or water birth. Four women stated that they used active labor positions (vertical birthing positions such as standing, supported position, squatting, kneeling, walking, sitting) until the moment of birth, and then changed their position to lithotomy at the time of crowning because it was the most appropriate position for them.

*"I was much more comfortable while sitting on the floor or standing. I didn't want to get on the birthing chair" (C3).*

*"I have seen that I could cope with contractions better while squatting" (R1).*

More specifically, almost all women in the CEC group (13) used active labor positions. Few women in the RPC group (2) stated that walking comforted them during the birthing process.

*"When contractions came, the Pilates ball was good for me" (C11).*

*"When I was standing, I rocked myself slightly sideways, and this comforted me" (C10).*

## 3. Intrinsic concentration

Some of the women who participated in CEC (5) stated they lost track of time and space during labor, and focused only on their labor and the coming baby.

*"I wasn't in a position to distinguish where I was at the time. I only focused on giving birth to the baby" (C4).*

*"I don't remember the moment of birth very clearly. There was an altered state like that of drunkenness" (C9).*

## 4. Participation in decision-making

While most women in the CEC group actively participated in decision-making, women who received only RPC tended to take a more passive role.

*"I didn't want to lay down being connected on NST device" (C2).*

*"I followed the directions of the midwives and doctors" (R10).*

Following the interviews, it was determined that only 6 women in the RPC group, in contrast to all women in the CEC group, were able to maintain control of pain, contractions, and fear.

*"I hit the wall for some time. I was even afraid that I would die, I was that scared, I screamed as if destroying the hospital" (R4).*

*"I knew what to do because of the training I got, so I felt comfortable" (C6).*

The desire and attitude of women to implement Non-Pharmacological Techniques for Pain Management (NPTPM) in CEC during labor is remarkable. Results from interviews also found that among NPTPM, women in both groups spontaneously used mostly respiratory techniques in pain control and used affirmation statements to relax during the moments in which pain was felt most intensely. Women using NPTPM (CEC participant: 9, RPC only:1) were more satisfied with their level of pain management than women who did not use them.

*"I breathed in and out through the nose during the*

*contraction waves. I always tried to meet its with breaths. I was hanging on my husband's shoulder. Swinging did me good" (C5). "I always leaned on my left, breathed" (R3).*

## Discussion

The importance of study, which aims to reveal the labor experiences of Turkish women who participated or did not participate in CEC, was in not simply confirming known facts, but in demonstrating the suitability of systematically conducted CEC for meeting intrapartum needs.

Women who participated in CEC reported receiving less anesthesia and fewer routine interventions during birthing, were more satisfied with their labor experience, were more likely to use active birthing position rather than lithotomy, could better ignore environment stimuli by focusing on labor, participated more actively in decision-making, and were better able to utilize NPTPM. In contrast, most of the women in the RPC group expressed that they accepted all decisions made by the labor team through their passive participation, had difficulties in pain and contraction control, and, finally, were less satisfied with their labor experiences. The results found by Miqueluttiet et al. (2013b) in their study of the birthing experiences of Brazilian women were similar to those found for Turkish women. The study reported that women who participated in CEC used vertical positions, bathing, massage, ball exercises, and breathing exercises to control pain, were able to maintain self-control and expressed satisfaction with their labor experiences. In the same study, it was found that women who did not participate in CEC had greater difficulty maintaining control during labor and expressed greater dissatisfaction [22-24].

There are few studies evaluating the effect of antenatal training, especially on the intrapartum period, and almost all of these studies were conducted in North America, Australia, and Northern Europe [12, 25]. Some of these studies suggested that antenatal training improved women's knowledge about labor [26]. Additionally, CEC participants in these studies engaged in more active labor, higher odds of a vaginal delivery and were less likely to use epidural anesthesia [27, 28]. However, other studies reported that CEC training had no impact on pain management during labor [29] and that there was no difference in terms of applied medical interventions and satisfaction [28] between groups who did and did not receive the training. Research by Artieta-Pinedo et al. (2010) and Bergström et al. (2010) suggests that CEC has no effect during the intrapartum stage. In contrast to these findings, the current study clearly demonstrates the positive effect of CEC for Turkish women in the contexts of intrinsic intrapartum focus, capacity for self-control, active participation and decision-making, and satisfaction with the labor experience. Families attending CEC were given information about how to control pain, how to handle contractions, how to use NPTPM, and were encouraged to implement these techniques. Ferguson et al. (2013) provided evidence supporting the findings of this study. In their study, 10 literature reviews addressing the intrapartum effects of antenatal training were systematically examined. In a synthesis of these findings, it was revealed that women who participated in CEC had less overall anxiety and were less likely to report to the hospital with signs of false labor. Additionally, their husbands participated more in the labor process [17].

Labor satisfaction is significant for the health of the mother and infant, as well as for positive family relations [30]. Postpartum depression, anxiety, and even post-traumatic stress disorder are all associated with dissatisfaction with labor [30, 31]. Other studies have similarly focused specifically on labor satisfaction, and have linked it to such variables as emotional

support, relationships with care providers, explanations of hospital procedures, avoidance of unnecessary obstetric interventions, and active participation in decision-making [14, 32-34]. This study also suggests that satisfaction with labor, the main theme of this research, is complex and affected by various factors. Women from both the CEC and RPC groups attributed their dissatisfaction to a crowded birthing environment, lack of respect for their privacy, routine medical interventions, a remote and complicated birth room environment, and insufficient support from family and healthcare professionals. Women who reported satisfaction with their experiences also emphasized the emotional support they received, as well as the impacts of skin to skin contact, and NPTPM for managing pain.

Emotional and professional support was also a factor emphasized across both the CEC and RPC groups in relation to overall satisfaction. Lowe emphasizes that women who don't feel that they have adequate resources (preparational for labor, continuous support, pain medication, etc.) have severe pain during the birthing process and are less able to manage their pain [35]. Continuous support during labor reduces the need for analgesic medication, decreases the duration of labor, and accelerates the recovery of the mother. Beyond the process of birthing, continuous support also increases the newborn's ability to thrive, enhances mother-infant bonding, and reduces postpartum emotional issues. In some studies, it was also associated with spontaneous vaginal birth and mothers' greater overall satisfaction [27, 36, 37]. The importance of emotional and professional support on the well-being of mothers and infants is also reflected in healthcare policy internationally [38]. However, emotional support during the labor process has been found to be insufficient in Turkey. In healthcare settings, insufficient professional support can be attributed to limited knowledge about labor and excessive workloads [39]. Insufficient emotional support, however, must be understood in a cultural context. In Turkey, many husbands are not willing to play an active role in the labor process. This reticence may be due to the patriarchal family structure particular to Turkey, which is generally understood as a barrier to women receiving desired support. Patriarchal culture is also reflected in the prohibition of men's presence in many maternity units, which suggests a passive role as the default. In this study, however, women who participated in antenatal education with their husbands received their emotional support during the labor process [40]. This evidence suggests that encouraging women and their husbands to attend CEC is essential. Moreover, training and counseling will foster mothers' problem-solving skills, increase their levels of knowledge, encourage active decision-making, improve their sense of control, and enhance self-confidence. Labor satisfaction is directly correlated with realistic expectations and maintenance of self-control [33].

The results of the qualitative study conducted by Hardin & Buckner (2004) reveal that women who have a sense of control over their bodies and freedom of movement and position have a positive labor experience. Correlations between dissatisfaction with labor and loss of control, and loss of control with insufficient knowledge of NPTQM, have been found in many previous studies [e.g.15, 41]. These findings were confirmed in this study, which revealed that women who participated in CEC used NPTPM more frequently and with greater efficacy. These women were able to maintain self-control through active participation in labor, which resulted in higher overall satisfaction. Moreover, this study found that Turkish women were willing to be proactively involved in and make decisions about their own health issues.

One of the reasons why labor may be difficult is that women don't "go with the flow" of labor. This can be due to a variety of factors. Labor proceeds naturally when the expectant mother can focus and concentrate on the process without any interference. Conversely, if the presence of obstacles to her focus prevents the release of oxytocin and increases the secretion of adrenaline, labor stops, and further intervention is required [42]. Inappropriate sounds, background noise, the temperature of the room, inappropriate lighting, and lack of respect for privacy contribute to disturbances in focus. In this study, women who participated in CEC were provided with information and practices related to imagery, breathing, and focus techniques. These techniques enable these women to ignore environmental stimuli and focus completely on their bodies and the birthing process. Factors such as antenatal education, a safe and private environment, and continuous support promote women's ability to enter this trance-like state.

## Limitations

This qualitative study aimed elucidate themes to about the intrapartum experiences of nulliparous Turkish women who participated childbirth education classes and only engaged in routine prenatal care, and with its small size it cannot be considered a fully representative sample. Information identified in results was based on the experience of the women interviewed, not on empiric data. So, study results was not generalized that would apply to all women.

## Conclusion

This study contributes to an understanding of the intrapartum needs of Turkish women. These findings may be useful for healthcare providers as they revise standards for

antenatal preparation and intrapartum care. This study also revealed that systematically conducted CEC decreases the need for intervention, promotes focus on labor, supports active participation, increases women's self-control, and increases the use of NPTPM. CECs planned in accordance with the intrapartum needs of Turkish women are correlated with positive labor outcomes. It is particularly important for expectant parents to be informed and supported by a systematic antenatal training program. Women's satisfaction with labor may be understood as guidance for the evaluation of quality service, the determination of deficiencies in care and support, and the elimination of these deficiencies. Within this context, it is essential to empower women and support the maintenance of self-control, active participation, and internal focus in the intrapartum process in order to enhance their labor satisfaction. Moreover, it is suggested that emotional support be provided continuously, labor environments are appropriate for these processes, and that primary care and obstetric professionals gain an awareness of women's needs and the significance of this antenatal preparation. Antenatal training should be adopted nationally and standards of preparation and care should be scrutinized in light of these findings.

**Disclosures:** There is no conflict of interest for all authors.

**Acknowledgments:** We are grateful to professionals who work at the hospital where the study was conducted, and to mothers who participated in the study for their efforts and their cooperation in connection with the study.

**Funding:** None

## References

1. Dinç H, Yazıcı S, Yılmaz T, Günaydın S. Pregnancy education. *Journal of Health Sciences and Professions*. 2015; 1(1):68-76. doi:10.17681/hsp.99216.
2. Esencan TY, Karabulut Ö, Yıldırım AD, Abbasoğlu DE, Külek H, Şimşek Ç, Kılıççı Ç. Delivery type, first breastfeeding time and skin-to-skin contact preferences of pregnant women who have been trained for childbirth. *Florence Nightingale Nursing Journal*. 2018; 26(1):31-43. doi:10.26650/FNJJN.387192.
3. Serçekuş P, Yenal K. Development of childbirth education classes in Turkey. *Turkey Clinics Journal of Obstetric- Women's Health and Diseases Nursing-Special Topics*; 2015; 1(1):33-35. doi:10.1016/j.midw.2015.11.016.
4. Turkey Demographic and Health Survey TDHS-2013. Retrieved from [http://www.hips.hacettepe.edu.tr/tnsa2013/rapor/TNSA\\_2013\\_ana\\_rapor.pdf](http://www.hips.hacettepe.edu.tr/tnsa2013/rapor/TNSA_2013_ana_rapor.pdf), on April 20, 2018.
5. Turkey Demographic and Health Survey TDHS-2018. Retrieved from [http://www.hips.hacettepe.edu.tr/tnsa2018/rapor/TNSA2018\\_ana\\_Rapor.pdf](http://www.hips.hacettepe.edu.tr/tnsa2018/rapor/TNSA2018_ana_Rapor.pdf), on September 5, 2020.
6. Bergström M, Kieler H, Waldenström U. Psychoprophylaxis during labor: associations with labor-related outcomes and experience of childbirth. *Acta Obstet Gynecol*. 2010; 89:794–800. doi:10.3109/00016341003694978.
7. Cantone D, Lombardi A, Assunto DA, Piccolo M, Rizzo N, Pelullo CP, Attena F. A standardized antenatal class reduces the rate of cesarean section in southern Italy: A retrospective cohort study. *Medicine*. 2018; 97(16). doi:10.1097/MD.00000000000010456
8. Miquelutti MA, Cecatti JG, Makuch MY. Evaluation of a birth preparation program on lumbopelvic pain, urinary incontinence, anxiety and exercise: a randomized controlled trial. *BMC Pregnancy Childbirth*. 2013; 13(1):154. doi:10.1186/1471-2393-13-154.
9. Hong K, Hwang H, Han H, Chae J, Choi J, Jeong Y, Lee KJ. Perspectives on antenatal education associated with pregnancy outcomes: Systematic review and meta-analysis. *Women and Birth*. 2020. doi.org/10.1016/j.wombi.2020.04.002.
10. Serçekuş P, Başkale H. Effects of antenatal education on fear of childbirth, maternal self efficacy and parental attachment. *Midwifery*. 2016; 34:166-172. doi:10.1016/j.midw.2015.11.016.
11. Toohill J, Fenwick J, Gamble J, Creedy DK, Buist A, Turkstra E, Ryding EL. A randomized controlled trial of a psycho-education intervention by midwives in reducing childbirth fear in pregnant women. *Birth*. 2014; 41(4):384–394. doi:10.1111/birt.12136.
12. Artieta-Pinedo I, Paz-Pascual C, Grandes G, Remiro-Fernandezdegamboa G, Odriozola-Hermosilla I, Bacigalupe A, Payo J. The benefits of antenatal education for the childbirth process in Spain. *Nursing Research*. 2010; 59(3):194-202. doi:10.1097/NNR.0b013e3181dbbb4e.
13. Smarandache A, Kim THM, Bohr Y, Tamim H. Predictors of a negative labour and birth experience based on a national survey of Canadian women. *BMC Pregnancy and Childbirth*. 2016; 16(1):114. doi:10.1186/s12884-016-0903-2
14. Gagnon AJ, Sandall J. Individual or group antenatal education for childbirth or parenthood or both. *Cochrane*. 2007; 3:5-24. doi:10.1002/14651858.CD002869.pub2.

15. Lally JE, Murtagh MJ, Macphail S, Thomson R. More in hope than expectation: a systematic review of women's expectations and experience of pain relief in labour. *BMC Med.* 2008; 6(7):1-29. doi:10.1186/1741-7015-6-7.
16. McCrea BH, Wright ME. Satisfaction in childbirth and perceptions of personal control in pain relief during labour. *Journal of Advanced Nursing.* 1999; 29(4):877–884. doi:10.1046/j.1365-2648.1999.00961.x.
17. Ferguson S, Davis D, Browne J. Does antenatal education affect labour and birth? A structured review of the literature. *Women Birth.* 2013; 26(1):e5-e8. doi:http://dx.doi.org/10.1016/j.wombi.2012.09.003.
18. Patriajati S, and Sriatmi A. Determinants of Mothers' participation In Antenatal Classes. *Jurnal Administrasi Kesehatan Indonesia.* 2019; 7(2):139-146. doi:10.20473/jaki.v7i2.2019.139-146
19. Rassin M, Klug E, Nathanzon H, Kan A, Silner D. Cultural differences in child delivery: comparisons between Jewish and Arab women in Israel. *Int Nurs Rev.* 2009; 56(1):123-130. doi:10.1111/j.1466-7657.2008.00681.x.
20. Kömürçü, N., Berkiten Ergin, A. (2008). Labor pain and management. Istanbul: Bedray Press Publishing Ltd. Şti.
21. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology.* 2006; 3:77–100. doi:10.1191/1478088706qp063oa
22. Miquelutti MA, Cecatti JG, Makuch MY. Antenatal education and the birthing experience of Brazilian women: a qualitative study. *BMC Pregnancy Childbirth.* 2013b; 13(1):171. doi:10.1186/1471-2393-13-171.
23. Nahae J, Mohammad-Alizadeh-Charandabi S, Abbas-Alizadeh F, Martin CR, Martin CJH, Mirghafourvand M, Hassankhani H. Pre- and during-labour predictors of low birth satisfaction among Iranian women: a prospective analytical study. *BMC Pregnancy and Childbirth.* 2020; 20(1):1-11. doi:10.1186/s12884-020-03105-5
24. Hassanzadeh R, Abbas-Alizadeh F, Meedy S, Mohammad-Alizadeh-Charandabi S, Mirghafourvand M. Assessment of childbirth preparation classes: a parallel convergent mixed study. *Reproductive health.* 2019; 16(1):1-7. doi:10.1186/s12978-019-0826-2
25. Jaddoe VW. Antenatal education programmes: Do they work? *Lancet.* 2009; 374(9693):863-864. doi:10.1016/S0140-6736(09)61610-X.
26. Malata A, Hauck Y, Monterosso L, McCaul K. Development and evaluation of a childbirth education programme for Malawian women. *J Adv Nurs.* 2007; 60(1):67–78. doi:10.1111/j.1365-2648.2007.04380.x.
27. Afshar Y, Wang ET, Mei J, Esakoff TF, Pisarska MD, Gregory KD. Childbirth education class and birth plans are associated with a vaginal delivery. *Birth.* 2017; 44(1):29-34. doi:10.1111/birt.12263
28. Maimburg RD, Vaeth M, Dürr J, Hvidman L, Olsen J. Randomised trial of structured antenatal training sessions to improve the birth process. *BJOG.* 2010; 117(8):921–928. doi:10.1111/j.1471-0528.2010.02584.x.
29. Fabian HM, Radestad IJ, Waldestro U. Childbirth and parenthood education classes in Sweden. Women's opinion and possible outcomes. *Acta Obstet Gynecol Scand.* 2005; 84(5):436–443. doi:10.1111/j.0001-6349.2005.00732.x.
30. Bertucci V, Boffo M, Mannarini S, Serena A, Saccardi C, Cosmi E, Andrisani A, Ambrosini G. Assessing the perception of the childbirth experience in Italian women: a contribution to the adaptation of the Childbirth Perception Questionnaire. *Midwifery.* 2012; 28(2):265–274. doi:http://dx.doi.org/10.1016/j.midw.2011.02.009.
31. Mohammad K, Gamble J, Creedy DK. Prevalence and factors associated with the development of antenatal and postnatal depression among Jordanian women. *Midwifery.* 2011; 27(6):238–245. doi: 10.1016/j.midw.2010.10.008.
32. Bazant ES, Koenig M. Women's satisfaction with delivery care in Nairobi's informal settlements. *Int J Qual Health Care.* 2009; 21(2):79–86. doi:https://doi.org/10.1093/intqhc/mzn058.
33. Bryanton J, Gagnon AJ, Johnston C, Hatem M. Predictors of women's perceptions of the childbirth experience. *JOGNN.* 2008; 37(1):24–34. doi:10.1111/j.1552-6909.2007.00203.x.
34. Caughey AB, Cheyney M. Home and birth center birth in the United States: time for greater collaboration across models of care. *Obstetrics & Gynecology.* 2019; 133(5):1033-1050. doi: 10.1097/AOG.0000000000003215
35. Lowe NK. The nature of labor pain. *Am J Obstet Gynecol.* 2009; 186(5):16–24. doi: http://dx.doi.org/10.1016/S0002-9378(02)70179-8.
36. Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. Continuous support for women during childbirth. *Cochrane Libr.* 2011; 16(2):1-15. doi:10.1002/14651858.CD003766.pub3.
37. Stapleton LRT, Schetter CD, Westling E, Rini C, Glynn LM, Hobel CJ, Sandman C. Perceived partner support in pregnancy predicts lower maternal and infant distress. *J Fam Psychol.* 2012; 26(3): 453–463. doi:http://dx.doi.org/10.1037/a0028332.
38. World Health Organization (WHO) Reproductive Health Library. (2014, Jul 4). Recommendations for augmentation of labour. Retrived December 1, 2020, from [http://apps.who.int/rhl/pregnancy\\_childbirth/childbirth/routine\\_care/cd000330/en/WHO](http://apps.who.int/rhl/pregnancy_childbirth/childbirth/routine_care/cd000330/en/WHO).
39. Vural G, Erenel AŞ. Why Has Medicalization of Birth Increased or Decreased?. *Journal of Hacettepe University Faculty of Nursing.* 2017; 4(2).
40. Serhatlioğlu SG, Karahan N. Birth Satisfaction and Affecting Factors. *International Refereed Journal Of Gynaecological Diseases And Maternal Child Health.* 2018. Doi: 10.17367/Jacs.2018.1.8.
41. Cheung W, Ip WY, Chan D. Maternal anxiety and feelings of control during labour: A study of Chinese first-time pregnant women. *Midwifery.* 2007; 23:123–30. doi:http://dx.doi.org/10.1016/j.midw.2006.05.001.
42. Çoker H. Natural birth. Istanbul, Inkilap Bookstore. 2015; 51-56.