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RESEARCH ARTICLE

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Primiparous women's knowledge and satisfaction based on their attendance at childbirth preparation classes

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Abstract

Aim: To compare primiparous women's childbirth knowledge and their satisfaction with the childbirth preparation classes between regular and irregular attenders.

Design: A cross-sectional study.

Method: This study was conducted on 136 primiparous pregnant women attending health centres in Tabriz, Iran. Women's knowledge on childbirth and their satisfaction with childbirth preparation classes were measured by using reliable tools via interviews. An independent *t* test was applied to compare women's knowledge and satisfaction scores between regular and irregular attenders.

Results: The mean score of knowledge was significantly higher among women who were regular attenders compared to irregular attenders ($p < .001$). Although there were no significant differences in total satisfaction score between the women ($p = .342$), women with regular attendance reported that childbirth preparation classes reduced their anxiety about labour.

Conclusions: Regular attendance at childbirth preparation classes is associated with higher women's knowledge and lower feelings of anxiety regarding labour and birth.

KEYWORDS

childbirth preparation classes, knowledge, satisfaction

1 | INTRODUCTION

Women prefer caesarean birth due to fear, anxiety and lack of knowledge about labour and the pain associated with natural birth (Masoumi et al., 2016; Aksoy et al., 2014). According to World Health Organization (WHO), the ideal rate for caesarean birth is between 10% and 15% (Betran et al., 2016). However, the number of caesarean births worldwide is increasing every year (Aksoy et al., 2014; Betran et al., 2016; Storksen et al., 2015). In Iran, the prevalence of caesarean birth has increased, reaching an estimated rate of 48% in recent years (Azami-Aghdash et al., 2014). Based on a systematic review, the factors influencing high caesarean birth rates in Iran were divided into three categories: (a) socio-demographic factors, (b) obstetric-medical causes and (c) non-obstetric-medical causes. Maternal education, grand multiparity, having a previous caesarean birth and fear of normal vaginal birth were major factors for having a caesarean sections. The most important reasons for women preferring caesarean birth without medical indications were the fear of childbirth and feeling intolerant towards labour pain. (Azami-Aghdash et al., 2014).

Currently, international policies reinforce promoting vaginal births through prenatal education. Therefore, different approaches have been used to encourage women to give birth vaginally (Cosans, 2004). For instance, Dick Read advocated education and emotional support for women during childbirth to reduce their fear and break the fear-tension-pain cycle (Dick-Read, 2013). Another approach was Lamaz's philosophy that emphasized the importance of vaginal childbirth and educating women towards an active birth without unnecessary interventions (Lamaz, 2002).

Some women who give birth for the first time are more stressed about adapting to their new role as a mother and their responsibilities about caring for the baby. These women are more likely to attend childbirth preparation classes (Jakubiec et al., 2014). Childbirth education can be helpful for pregnant women and their families to develop their birth plan (Bailey et al., 2008); make decisions about labour and birth; choose pain management methods; and prepare for breastfeeding and parenting (Gokce Isbir et al., 2016; Simpson et al., 2010; Stoll & Hall, 2012). Childbirth preparation classes also prepare women (Firouzbakht et al., 2013; Pinar et al., 2018) to identify unexpected complications that may contribute to maternal mortalities such as gestational hypertension, postpartum haemorrhage and infection (Malata et al., 2007).

Evidence demonstrated that women's knowledge on childbirth reduces their anxiety (Hassanzadeh et al., 2019); increases their confidence; and enhances the desire for vaginal birth (Aksoy et al., 2014; Gokce Isbir et al., 2016). In a study of 132 participants, women who attended childbirth classes regularly had more knowledge on childbirth, were confident in their ability to give birth and were involved in the shared decision-making process (Pinar et al., 2018). In another study, women with childbirth education managed labour pain better, used less medications during labour and had less instrumental birth incidences (Firouzbakht et al., 2015; Gluck et al., 2020). Attending childbirth classes was also associated with a positive relationship with the medical staff and more success in breastfeeding (Gao et al., 2019; Lin et al., 2008).

Assessing patients' satisfaction is one of the common components of healthcare services (Kamil Dhahi et al., 2015). Therefore, women's satisfaction about childbirth preparation classes is as important as their knowledge. Women's low satisfaction is associated with delay in seeking medical advice and poor understanding of medical conditions (Wilkin et al., 1992). Although the impact of childbirth education on women's knowledge has been reported in different studies, women's satisfaction with childbirth preparation classes has not been systematically examined (Lee & Holroyd, 2009; Lin et al., 2008).

In Iran, childbirth preparation classes are voluntary, free and run in eight 90 min sessions. Trained midwifes deliver the classes based on standard content that is set by the Ministry of Health (Table 1) (IRI Ministry of Health & Medical Education, 2015).

Despite holding childbirth classes since 2008, we have not found any study that examined the knowledge and satisfaction of women who attended the childbirth preparation classes in Iran. This study was aimed to compare primiparous women's childbirth knowledge and satisfaction between regular and irregular attenders of childbirth preparation classes.

2 | METHODS

This study was part of a mixed method study which was approved by the Ethics Committee of Tabriz University of Medical Sciences (IR.

TABLE 1 Content of childbirth preparation classes

Time	Gestational Age (Week)	Contents
Session 1	20–23	Introduction about classes and getting to know mothers, anatomy and physiology changes of pregnancy, Personal hygiene, Common discomforts of pregnancy Practical exercises: stretching exercises, relaxation, massage and breathing techniques[a]
Session 2	24–27	Nutritional needs of pregnant women
Session 3	28–29	Foetal growth and development, Mental Health, Husbands Education
Session 4	30–31	Warning Signs in pregnancy
Session 5	32–33	Planning for childbirth, Analgesia and anaesthesia for labour and birth Visiting delivery room
Session 6	34–35	Stages of childbirth, necessary interventions, different position of childbirth childbirth videos
Session 7	36	Postpartum care, Warning sign, Family planning, Breastfeeding education breastfeeding videos
Session 8	37	Neonatal care, Warning signs for neonatal, breast feeding

[a]Practical exercises are taught and practiced at the end of each session.

TBZMED.REC.1398.066). This paper reflects the cross-sectional part of the study of 136 primiparous women with gestational ages of 35–37 weeks. The protocol has already been published (Hassanzadeh et al., 2019). This study was conducted during a 9-month period between July 2019 and March 2020.

Women were grouped based on their attendance of childbirth preparation classes: regular attenders (attending four to eight sessions) and irregular attenders (attending one to three sessions). According to IRI Ministry of Health and Medical Education directive policy, women who attend only 1 to 3 sessions of these classes are not considered trained. Therefore, they were classified as "Irregular attenders" in this study. The inclusion criteria consisted of living in the city of Tabriz, being a primiparous woman with a gestational age of 35–37 weeks. The exclusion criteria were multiparity, multiple gestations, preterm births, non-cephalic presentation, history of depression, having stressful family events and obstetric problems.

The sample size was calculated based on the knowledge variable and using G-Power software. According to the results of a study by Pinar et al. (Pinar et al., 2018), average knowledge score in the control group was 8.85 (m_1), assuming a 30% increase in knowledge score due to regular participation in class, the expected average score would have been 11.50 (m_2). Therefore, the sample size for each group was calculated based on SD_1 and SD_2 of 4.58, having two sided alpha of 0.05, with the power of 90%. Sixty-four pregnant woman were considered a sufficient sample size for this study. Considering the attrition rate, the final sample size was increased to 68 women in each group ($n = 136$).

2.1 | Sampling method

Cluster sampling was used. Tabriz city has 20 health complexes, and each complex covered four to five health centres. One third of healthcare complexes ($n = 7$) were selected via simple random method from the 20 health complexes, and sampling was performed in 29 health centres. In each centre, eligible primiparous women at 35 to 37 weeks of gestation were invited to participate in the study. The objectives and requirements of the study were explained to all potential participants. If they were willing to participate in the study, written consent was obtained and the study questionnaires were completed through interviews.

2.2 | Data collection tools

The following questionnaires were used to collect data: socio-demographic and obstetrics characteristics, satisfaction with childbirth preparation classes and knowledge of pregnancy and childbirth.

The socio-demographic characteristics questionnaire included the following items: women's age, the onset of sexual intercourse; education, occupation, body mass index, spouse's age, education and occupation, spouse's support and marital satisfaction. Spouse's support and marital satisfaction were assessed with a subjective item, and responses were based on 5 point Likert scale including (very high, high, moderate, low and very low). Participants could choose one of the options. Obstetrics questionnaire included questions about abortion, infertility and history of unwanted pregnancies; and whether or not there was a preference for the sex of the foetus. The validity of this questionnaire in this study was confirmed by content and face validity.

Satisfaction questionnaire for childbirth preparation classes was first developed by Lee et al. in 2009. This questionnaire included 25 questions in three subscales: (a) structure (date, time, place, length and size of classes), (b) process (the way classes were facilitated including performance of the facilitator, usefulness of the topics and teaching styles) (c) and outcome (the influence of the classes on courage for normal birth, reducing anxiety for labour, and fulfilment of the participants educational needs). Participants determined their level of satisfaction using a 5-point Likert scale, from "not at all satisfied" (score 1) to "very satisfied" (score 5). In the study by Lee et al., the content validity of this questionnaire was 0.88, and the Cronbach alpha level was 0.89 for the whole questionnaire and 0.76, 0.88 and 0.72 for the following subscales: structural, process and outcome, respectively (Lee & Holroyd, 2009). This questionnaire has been evaluated in Iran (Hassanzadeh et al., 2020). Cronbach's alpha coefficients of the assessed constructs were between 0.83 (the class structure) and 0.92 (the class outcome), and a coefficient of 0.93 was obtained for the whole questionnaire.

The Maternal Knowledge Survey Questionnaire on Pregnancy and Childbirth used in this study was designed by a researcher based on a document that is taught in childbirth preparation classes and includes 20 questions. The scores of this questionnaire ranged from zero to twenty, where each correct answer scored one point and each incorrect or "I don't know" answer, scored zero points. The validity of this questionnaire was calculated based on expert opinions and by calculating two indicators of CVR (Content Validity Ratio) and CVI (Content Validity Index). The calculated CVR and CVI values were in the range of 0.77 to 1 and 0.88 to 1, respectively. The reliability of the questionnaire was determined as 0.81 by Cronbach's alpha coefficient.

2.3 | Statistical analyses

After completing the questionnaires, the data were analysed using SPSS 21 software. The normality of quantitative data was assessed using Kolmogorov–Smirnov test. Independent *t* tests, chi-square, chi-square by trend and Fisher's exact tests were used to assess the homogeneity of the study groups. Independent *t* test was used to compare knowledge score and women's satisfaction among study groups, and general linear model (GLM) was used to adjust the socio-demographic characteristics of participants as potential confounding variables. P-values of less than 0.05 were considered significant.

3 | RESULTS

Response rate was 100%, and there were no missing data. There were no statistically significant differences on socio-demographic and obstetric characteristics between the groups ($p > .05$). In the regularly attending group, majority of women ($n = 49$, 72.1%) attended eight sessions. In the irregularly attending group, only 44 (64.7%) women participated in 3 sessions, and the remainder attended the childbirth preparation classes once or twice.

The mean (standard deviation) age in the regularly attending group of women was 25.7 (4.7) and 27.0 (5.6) ($p = .163$) in the irregularly attending group. The other socio-demographic characteristics are shown in Table 2.

The mean (*SD*) knowledge score was 13.7 (2.4) and 11.0 (4.2) in the group of regular attenders and irregular attenders, respectively. According to the independent *t* test, the average knowledge score among the regular attenders was significantly higher than the irregular attenders ($p < .001$) (Table 3). Majority of the women in the irregularly attending group did not provide a correct answer to the questions that were about pain relief or episiotomy. (Table 4).

The mean (*SD*) score of overall class satisfaction among women with regular attendance was 100.7 (13.6) compared to 98.5 (9.93) among women with irregular attendance ($p = .342$). The mean score of satisfaction on class structure ($p = .799$) and class process ($p = .266$) was the same between the groups. Only the mean score of satisfaction about the class outcome was significantly higher among women with regular attendance compared to women with irregular attendance ($p = .029$) (Table 3). Women had higher satisfaction scores for the following subscale items if they were regular attenders: "the usefulness of the topic about breathing exercises and relaxation technique," "the effectiveness of teaching method: didactic teaching," "the ability to fulfil women's educational needs" and "the ability to reduce anxiety for the labour" (Table 5).

After the adjustment of socio-demographic characteristics of participants, the general linear model results showed that the mean score of knowledge ($p < .001$) was significantly higher in the regularly attending group than the irregularly attending group, but no significant difference was found between the regularly attending and irregularly attending groups in terms of total satisfaction and its subscales (Table 6).

4 | DISCUSSION

This is the first study to our knowledge in Iran to compare women's knowledge and satisfaction with childbirth preparation classes. The main finding of the study is that women who attended the childbirth preparation classes regularly had a higher mean score of knowledge compared to women who did not attend classes regularly. Although there was no significant difference between the mean scores of overall satisfaction between the groups, satisfaction level of women about class outcomes with fulfilling their educational needs and

TABLE 2 Characteristics of the study participants ($n = 136$)

Variable	Irregularly attending mean (*SD*)	Regularly attending mean (*SD*)	*p*-value
Age (years)	27.0 (5.6)	25.7 (4.7)	0.163[a]
Spouse's Age	32.0 (5.0)	30.8 (4.2)	0.133[a]
Age at the onset of sexual life	23.9 (5.2)	22.8 (4.6)	0.212[a]
Education			
Illiterate	1 (1.5)	1 (1.5)	0.606[b]
Elementary	1 (1.5)	2 (2.9)	
Intermediate	10 (14.7)	8 (11.8)	
High school	9 (13.3)	11 (16.2)	
Diploma	11 (16.2)	18 (26.5)	
College	36 (52.9)	28 (41.2)	
Occupation			
Housewife	52 (76.5)	56 (82.3)	0.151[b]
Employee	15 (23.1)	8 (11.8)	
University student	1 (1.5)	4 (5.9)	
Income			
Not at all sufficient	6 (8.8)	2 (2.9)	0.207[b]
Relatively sufficient	45 (66.2)	53 (77.9)	
Completely sufficient	17 (25.0)	13 (19.1)	
Spouse's education			
Illiterate	1 (1.5)	0	0.752[b]
Elementary	5 (7.4)	2 (2.9)	
Intermediate	3 (4.4)	5 (7.4)	
High school	4 (5.9)	4 (5.9)	
Diploma	21 (30.9)	19 (27.9)	
College	34 (50.0)	38 (55.8)	
Spouse's occupation			
Unemployed	1 (1.5)	2 (2.9)	0.453[b]
Employed	13 (19.1)	19 (27.9)	
Worker	16 (23.5)	10 (14.7)	
Free job	38 (55.8)	37 (54.4)	
Spouse's support			
Very high	34 (50.0)	41 (72.1)	0.436[b]
High	20 (29.4)	16 (23.5)	
Average	14 (20.6)	10 (14.7)	
Low	0	0	
Very Low	0	1 (1.5)	
Marital satisfaction			

(Continues)

TABLE 2 (Continued)

Variable	Irregularly attending mean (*SD*)	Regularly attending mean (*SD*)	*p*-value
Very high	37 (54.4)	49 (60.3)	0.070[b]
High	19 (27.9)	12 (17.6)	
Average	12 (17.6)	6 (8.8)	
Low	0	1 (1.5)	
Sex of the foetus not preferred by the parents	20 (29.4)	17 (25.0)	0.791[c]
Unwanted pregnancy	7 (10.3)	9 (13.2)	0.700[c]

[a]Independent samples *t* test.
[b]Fisher's exact test.
[c]Chi-square test.

reducing their anxiety about labour were significantly higher among women who were regular attenders compared irregular attenders.

The results of this study are in alignment with other studies (Lee & Holroyd, 2009; Pinar et al., 2018; Spinelli et al., 2003). For instance, the results of an observational study of 9,004 Italian women showed that childbirth preparation classes increased pregnant women's knowledge on breastfeeding, contraceptive methods and increased their satisfaction with the childbirth experience compared to women who did not attend any classes (Spinelli et al., 2003). Similarly, in a quasi-experimental study with 132 primiparous women in Turkey, the results demonstrated that women who attended childbirth preparation classes had a higher level of knowledge; responded better to their labour pains; and initiated breastfeeding earlier than the control group. (Pinar et al., 2018). In a study by Lee and Holroyd, pregnant women who attended childbirth preparation classes stated that they learned more about labour, non-pharmacological strategies for pain relief, and breathing and relaxing exercises (Lee & Holroyd, 2009). The outcome measures in the above studies were assessed between the women who attended childbirth classes and who did not attend the classes; however, in our study both groups attended the classes; however, one group attended regularly and the other group attended irregularly.

There are a limited number of studies that reported pregnant women's satisfaction with childbirth preparation classes. In a mixed method study by Lee et al., women, who attended childbirth classes, were highly satisfied with their classes (Lee & Holroyd, 2009). In another study, 96.3% of women attending childbirth classes were satisfied with their classes and reported the classes to be very useful. The greatest satisfaction of these women were about the performance of the facilitator, usefulness of relaxation methods, breathing techniques and the overall effect of the classes (Ricchi et al., 2019) which are similar to the findings of our study. In our study, women with regular attendance reported that childbirth preparation classes reduced their anxiety about labour. Considering that fear and anxiety is one of the predictors of traumatic birth (Ghanbari- Homayi et al. 2019), attending childbirth classes at regular bases can improve women's childbirth experiences.

The lowest level of satisfaction in our study was related to the lack of having a tour of the maternity ward. However, in Lee's study, the lowest level of satisfaction was related to having evening classes where women felt tired after work and could not pay their full attention to the class (Lee & Holroyd, 2009). The reason for this discrepancy could be related to the differences in the format and set up of the classes. For example, the childbirth classes in Iran are run only in the mornings without a tour, which could be the reason for the dissatisfaction of women towards the teaching method about the labour ward.

Although regular attendance of childbirth preparation classes are very important, perhaps women can also benefit by having an option between eight short sessions or two long sessions where they choose the option that suits them most. In the last decade, providing technology based education has also become very popular (Meedya et al., 2019; Meedya et al., 2020) and can be considered an alternative for face-to-face education during the COVID 19 pandemic. However, many women in Iran who use public health services do not have access to a mobile phone or high speed internet which makes it less practical for the women who require the education most.

Quality of care in health services can be improved and flourished when women feel empowered, knowledgeable and satisfied through the care they receive (Kamil Dhahi et al., 2015; Meedya et al., 2016). Childbirth preparation classes have been valued by women as a positive process in preparing them for childbirth.

TABLE 3 Comparison of the scores of knowledge and Satisfaction with childbirth education class in irregularly attending (I-A) and regularly attending (R-A) groups based on independent samples *t* test

Variable	I-A *n* = 68 Mean (*SD*)	R-A *n* = 68 Mean (*SD*)	Comparison between groups *p*-Value
Knowledge	11.0 (4.2)	13.7 (2.4)	<.001
Total Satisfaction	98.5 (13.9)	100.7 (13.6)	.342
Satisfaction with structure of the class	19.3 (3.8)	19.1 (4.1)	.797
Satisfaction with process of the class	62.9 (8.7)	64.5 (8.8)	.266
Satisfaction with outcome of the class	16.1 (2.5)	17.0 (1.9)	.029

TABLE 4 Comparison of Frequencies of correct answers to the knowledge variables in irregularly attending (I-A) and regularly attending (R-A) groups

Question	I-A *N* (%)	R-A *N* (%)	*p*-Value
Which is natural symptom of pregnancy?	62 (91.2)	64(94.2)	.513
What exercises are safe during pregnancy?	18(26.5)	24(35.3)	.267
Which is not a warning sign during pregnancy	45(66.2)	48(70.6)	.581
Which is not characteristic of "false" labour pains?	41(60.3)	43(63.2)	.725
What position should the mother be in during labour?	42(61.8)	49(72.1)	.204
What is the best time for dental treatment during pregnancy?	45(66.2)	45(66.2)	1.000
Which is not recommended to ease leg cramps during pregnancy?	40(58.8)	54(79.4)	.010
Which is not labour pain relief techniques?	53(77.9)	62(92.1)	.033
What techniques are recommended for labour pain relief?	22(34.2)	34(50.0)	.037
Which is correct about the differences between vaginal childbirth and caesarean section?	56(82.4)	61(89.7)	.218
What is recommended to mother in early hours after birth?	29(42.6)	43(63.2)	.017
How many months should a baby be exclusively breastfed?	53(77.9)	61(89.7)	.063
How long after birth should a mother take iron supplements?	42(61.8)	47(69.1)	.369
How long after birth bleeding is considered warning sign and needs a medical attention?	22(32.4)	34(50.0)	.037
What is recommended to relief pain and rapid repair of episiotomy?	11(16.2)	30(44.1)	<.001
How long does postpartum blouse last?	29(42.6)	47(69.1)	.002
Which is normal signs in newborn?	35(51.5)	50(73.5)	.008
What are effective in after pain relief?	25(36.8)	22(32.4)	.590
What should be announced to the obstetrician in the first hours after birth?	41(60.3)	52(76.5)	.043
How long after birth should a mother start using contraception methods?	41(60.3)	62 (91.2)	<.001

Increasing the knowledge of pregnant women about labour, childbirth and strategies for coping with pain can increase women's self-efficacy in enduring labour pain (Duncan et al., 2017; Pinar

TABLE 5 Comparison of mean (*SD*) of the satisfaction variables in irregularly attending (I-A) and regularly attending (R-A) groups

Satisfaction variables	R-A Mean (*SD*)	I-A Mean (*SD*)	*p*-Value
Structure of the class			
1. Date of the class	4.12 (0.65)	4.10 (0.73)	.902
2. Time of the class	4.07 (0.79)	4.06 (0.79)	.914
3. Length of the class	3.51 (1.20)	3.57 (1.05)	.762
4. Physical environment of the classroom	3.40 (1.25)	3.56 (1.13)	.433
5. Size of the class	4.06 (0.79)	4.04 (0.76)	.912
Process of the class			
6. Performance of the midwife	4.32 (0.60)	4.26 (0.63)	.583
7. Performance of the midwife in physical exercises training	4.34 (0.58)	4.24 (0.67)	.344
8. Performance of the midwife in pain relief methods training	4.22 (0.75)	4.18 (0.69)	.722
9. Participation in the class	4.18 (0.69)	4.00 (0.75)	.157
10. Amount of information given	4.34 (0.53)	4.15 (0.60)	.053
11. Usefulness of the topic: labour process	4.22 (0.64)	4.09 (0.61)	.223
12. Usefulness of the topic: introduction to labour ward	3.75 (1.15)	3.82 (0.84)	.672
13. Usefulness of the topic: husband's role	3.91 (0.84)	3.85 (0.79)	.676
14. Usefulness of the topic: preparation for the labour	4.24 (0.57)	4.12 (0.61)	.250
15. Usefulness of the topic: breathing and relaxation exercises	4.34 (0.50)	4.09 (0.68)	**.017**
16. Usefulness of the topic: pain relief in labour	4.25 (0.65)	4.04 (0.65)	.069
17. Effectiveness of teaching method: didactic teaching	4.34 (0.50)	4.12 (0.58)	**.020**
18. Effectiveness of teaching method: demonstration	4.26 (0.58)	4.13 (0.64)	.213
19. Effectiveness of teaching method: practice	4.10 (0.84)	4.07 (0.75)	.832
20. Effectiveness of teaching method: audiovisual materials	3.34 (1.19)	3.19 (1.18)	.472
21. Effectiveness of teaching method: tour to labour ward	2.44 (0.85)	2.56 (0.79)	.408

(Continues)

TABLE 5 (Continued)

Satisfaction variables	R-A Mean (*SD*)	I-A Mean (*SD*)	*p*-Value
Outcome of the class			
22. Ability to fulfil your informational need	4.31 (0.49)	4.09 (0.70)	**.037**
23. Ability to give you courage for labour	4.13 (0.62)	3.91 (0.82)	.080
24. Ability to reduce your anxiety for labour	4.19 (0.65)	3.90 (0.79)	**.020**
25. Overall impression of the class	4.38 (0.51)	4.26 (0.58)	.219

Note: The bold values indicate statistical significance ($p < .05$).

et al., 2018). To be able to facilitate full content of the childbirth classes, there is a need for midwives or maternity nurses (Lee & Holroyd, 2009; Ricchi et al., 2019) who have the advanced knowledge, required skills and clinical experience in providing care during antenatal, intrapartum and postpartum periods (Lee & Holroyd, 2009).

4.1 | Limitations and strengths

Although the random sampling is a strength in this study, there are some limitations. The main limitation of this study is that the participants consisted of primiparous women from healthcare complexes from Tabriz city only. Therefore, the results cannot be generalized to multiparous women or primiparous pregnant women from other cities. Also, another limitation of this study was its cross-sectional design in which the relationships shown do not exactly indicate a causal relationship.

4.2 | Implications of findings

Based on the findings of this study, nurses and midwives can play an important role in providing prenatal education for pregnant women and in encouraging them to attend these classes. They as healthcare providers can provide childbirth education along with prenatal care for pregnant women. They can improve pregnant women's knowledge of pregnancy and childbirth by teaching them about physiological changes of pregnancy, foetal development, labour and childbirth, warning signs, dealing with common problems during pregnancy, non-pharmacological methods for pain relief in labour. By these trainings, prenatal nurses can reduce pregnant women's fear and anxiety and increase their self-confidence in enduring labour pains. They answer to pregnant women questions respectfully and guide them to seek professional. Also prenatal nurses can prepare mothers to breastfeed and provide care for their infants with their training. Thus, midwives and nurses can play an important role in promoting vaginal childbirth and also healthy lifestyle for mothers during pregnancy and postpartum periods.

TABLE 6 Comparison of the scores of knowledge and satisfaction in irregularly attending and regularly attending groups based on the general linear model

Variable	B[a]	95%Confidence Interval	*p*-value
Knowledge			
Irregularly attending	−2.6	(−3.8 to −1.3)	<.001
Total satisfaction			
Irregularly attending	−1.7	(−6.3 to 2.9)	.468
Satisfaction with structure of the class			
Irregularly attending	0.12	(−1.2 to 1.5)	.857
Satisfaction with process of the class			
Irregularly attending	−1.3	(−4.3 to 1.6)	.379
Satisfaction with outcome of the class			
Irregularly attending	−0.6	(−1.4 to 0.14)	.106

Note: In all variables, the reference group was regularly attending.
[a]Values have been adjusted for socio-demographic characteristics of participants.

5 | CONCLUSION

Regular attendance at childbirth preparation classes is associated with higher women's knowledge which can assist primiparous women to meet their educational needs, reduce maternal anxiety about childbirth and give the courage for natural labour and birth. Therefore, the integration of childbirth preparation classes is recommended to be part of routine prenatal care where all pregnant women can be encouraged to attend these classes.

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CONFLICT OF INTEREST

None declared.

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