Evaluation of childbirth self-efficacy and associated factors among pregnant women

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Abstract:

BACKGROUND: Increasing the rate of Normal Vaginal Delivery (NVD) and reducing elective cesarean section is one of the important concerns, especially in Iran. Childbirth self-efficacy can play an important role in managing the fear of childbirth and increasing the rate of NVD. The aim of this study was to determine demographic, fertility, and social factors related to childbirth self-efficacy.

MATERIALS AND METHODS: The present study was a single-group, single-stage, multivariate, cross-sectional study that assessed childbirth self-efficacy and associated factors in 358 eligible pregnant women with gestational age of 37 weeks and over in Guilan (North Iranian province) from November 2018 to July 2019. Data collection was performed based on consecutive sampling method from the pregnant women referring to the prenatal clinic. Data collection tools included a demographic and reproductive characteristics questionnaire; Lowe's childbirth self-efficacy Inventory and Zimet's perceived social support multidimensional questionnaire.

RESULTS: There was a significant relationship between the educational level of pregnant women and Outcome Expectancy (OE) and Self-efficacy Expectancy (EE) and also between the spousal level of education and OE ($P < 0.05$). Parity, previous experience of birth, participation in pregnancy preparation classes, access to information sources about childbirth, and birth preference were significantly related to OE and EE ($P < 0.05$). There was a significant relationship between the two domains of perceived social support, spouse and friends, and the OE and EE ($P < 0.05$). The multivariate logistic regression model revealed that birth preference was a predictor for OE and EE, while a pregnant woman's education level and perceived social support in the domain of significant others were predictors for OE. Spousal age, mean family income, and participation in the prenatal preparation classes were predictors for EE.

CONCLUSIONS: Regarding the importance of self-efficacy in childbirth in encouraging pregnant women to perform NVD, pregnancy and childbirth preparation classes with an emphasis on concepts including self-efficacy of childbirth should be focused by midwives and other health-care workers in order to improve pregnant women's knowledge regarding the benefits of NVD and to strengthen their belief in the benefits of pain-compatible actions.

Keywords:

Delivery, pregnancy, self-efficacy, social support

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Introduction

According to Bandura's theory, self-efficacy is synonymous with the concept of self-esteem and involves one's belief in one's ability to confront a particular situation and perform the necessary behaviors in that situation. Self-efficacy includes two concepts; Outcome Expectancy (OE) and Self-efficacy Expectancy (EE). The expected outcome refers to one's belief that a specific action leads to a certain consequence. Whereas, self-efficacy expectancy refers to one's belief regarding one's ability to successfully

perform a behavior/action under specific conditions and the degree of control over those conditions.[1,2] In this context, childbirth self-efficacy refers to beliefs and expectations that a pregnant woman has about labor and childbirth.[3]

Increasing the rate of Normal Vaginal Delivery (NVD) and reducing elective cesarean section (CS) is one of the important concerns of the world's health systems, especially in Iran.[4,5] Fear of childbirth is one of the main reasons for elective CS.[5,6] Childbirth self-efficacy can play an important role in managing the fear of childbirth and increasing the rate of NVD.[7-9]

Literature evidence has shown that childbirth self-efficacy may be influenced by sociodemographic and obstetric factors such as maternal age,[10,11] educational level,[10,12] employment status,[11,12] parity,[9,13] childbirth preparation classes,[14,15] and social support.[16,17] According to a study with the aim of determining factors associated with childbirth self-efficacy among Australian pregnant women, no relationship was reported between demographic characteristics, including age, level of education, and childbirth self-efficacy.[16] Another study in China aimed to determine the predictive factors for fear of birth in pregnant women showed that younger women with lower education levels had higher rates of fear of birth and higher levels of fear of birth were associated with lower levels of childbirth self-efficacy.[10]

According to studies, parity is one of the determining factors of childbirth self-efficacy.[9,13] It seems that nulliparous women's fear of childbirth due to lack of previous experience and multiparous women's fear due to previous traumatic childbirth experience can affect the level of childbirth self-efficacy and also the choice of the type of childbirth.[6,18]

According to the findings of a study, skill-based birth training programs can increase chilh birth self-efficacy in primiparous women,[19] while the findings of another study aimed to assess the effect of training classes on anxiety and self-efficacy showed that participation in labor preparation classes was not associated with an increase in self-efficacy.[20]

Perceived social support refers to one's understanding of the extent of access to social support at times of need.[21] In this regard, in the absence of previous experience with childbirth, observing and hearing from others who have experienced similar experiences can have an impact on childbirth self-efficacy.[20] According to a study, pregnant women who had more information about childbirth had higher childbirth self-efficacy and multiparous women who did not have a spouse with a supportive role during pregnancy had lower self-efficacy compared to

primiparas.[16] Also, according to other studies, inadequate social support, especially from the spouse can be associated with greater fear of childbirth, and fear of childbirth can lead women more toward the elective cesarean section. In other words, spousal support is a mediating variable between childbirth fear and childbirth self-efficacy.[8,22] However, according to Hamama-Raz *et al.*'s study, which was conducted with the aim of determining the effect of individual and interpersonal factors on the fear of childbirth in pregnant women, satisfaction with the relationship with the spouse did not play a role in predicting the fear of childbirth and individual factors played a more important role than interpersonal factors.[23] Also, based on another study, there was no significant relationship between perceived social support and fear and childbirth self-efficacy in pregnant women.[24]

According to research, the results of studies on the factors related to childbirth self-efficacy seem contradictory. Considering the importance of childbirth self-efficacy as a leading factor toward the choice of NVD, the researchers in this study attempted to evaluate the childbirth self-efficacy and its related factors.

Materials and Methods

Study design and setting
The present study was a single-group, single-stage, multivariate, cross-sectional study. The self-efficacy and its related factors were evaluated and analyzed among pregnant women referring to Al-Zahra Educational, Remedial, and Research Center, Rasht (Iran) from November 2018 to July 2019.

Study participants and sampling
Research units included 358 eligible pregnant women referred to the prenatal ward of Al-Zahra Educational, Remedial and Research Center. Inclusion criteria were singleton pregnancy, gestational age 37 weeks and older, literacy, no high-risk pregnancy and no known contraindications to NVD, no history of consumption of neurotoxic medications during pregnancy based on the interview, living with a spouse, no history of drug addiction, smoking, and alcohol use by pregnant woman. Exclusion criteria were unwillingness to cooperate and participate in the research during the completion of questionnaires.

Data collection was performed based on consecutive sampling method from the pregnant women referring to the prenatal clinic. Research units were selected based on ethical considerations, inclusion and exclusion criteria. Data were recorded using a researcher-made demographic reproductive characteristics questionnaire, childbirth self-efficacy inventory, and perceived social support multidimensional questionnaire.

Data collection tool and technique

The demographic reproductive characteristics questionnaire consisted of 22 questions, including 9 questions about personal information of the subjects, including age and age of spouse, self and spousal education level, self and spousal occupation, mean family income, insurance status, place of residence (urban/rural), and 13 questions related to obstetrics/fertility history, including the history of infertility, gravida, parity, and gestational age based on the first day of last menstrual period, history of any maternal, fetal or infant complications in previous pregnancy, previous birth experience (easy/hard), current pregnancy status (wanted/unwanted), fetal sex, fetal preferred sex, participation in birth preparation classes, number of sessions attended, source of information on childbirth if the pregnant woman did not attend the birth preparation classes and birth preference (NVD/CS/not decided).

Maternal self-efficacy was a dependent variable in the present study. Childbirth self-efficacy was assessed using the short form of Low's childbirth self-efficacy inventory.[25] The short form of this tool has 36 questions, consisting of two parts and has two total scores. The first part measures the expected outcome during labor through 18 questions and the second part measures the expected self-efficacy during labor through 18 questions. Questions in each section are rated on a 10-point Likert scale ("completely useless": 1 to "completely useful":10 and "completely uncertain": 1 to "completely sure": 10). Each question in each section scores from 1 to 10. The expected outcome (OE) score and expected self-efficacy (EE) score are calculated by summing the scores in each section. Total scores range from 18 to 180 with higher scores indicating higher level of expected outcome and self-efficacy levels. The reliability and validity of the Persian version of this questionnaire were confirmed in the study of Khorsandi with Cronbach's alpha for the total tool was 0.92, while it was 0.88 for OE and EE subscales.[26]

Perceived social support was an independent variable in the present study that was assessed using the perceived social support multidimensional questionnaire.[27] The tool consists of 12 questions that measure perceived support from family (4 questions), friends (4 questions), and significant others (4 questions). Questions are rated on a 5-point Likert scale ("totally agree": 1 to "completely disagree": 5). The tool scores range from 12 to 60, with higher scores indicating higher perceived social support in the individual. The reliability and validity of the Persian version of this questionnaire were confirmed in the study of Rajabi with Cronbach's alpha for the total tool was 0.88 and for each of the domains, including family, friends, and significant others, were 0.80, 0.90, and 0.80, respectively.[28]

SPSS software version 20 (IBM Corp., Armonk, NY, USA) and descriptive and analytical statistics (Kruskal-Wallis test, Mann-Whitney U test, and Spearman's rank correlation coefficient) were used to analyze the data. Multiple logistic regression model was used to determine the predictors of childbirth self-efficacy in two domains of OE and EE. In all tests, a significance level of 0.05 was considered.

Ethical consideration

Permission was granted from the Research Council and Ethics Committee of Guilan University of Medical Sciences, Rasht, Iran (Ethics Code: IR.GUMS.REC.1397.277). Individuals were given necessary explanations regarding the purpose of the study, confidentiality of information, and voluntary participation in the study. Written informed consent was obtained from pregnant women. Pregnant women were also assured that they could leave the study at any point if they were not willing to cooperate.

Results

The mean childbirth self-efficacy score in the two domains of OE and EE was, respectively, 101.58 ± 42.82 and 106.85 ± 44.93. The mean and standard deviation for the age of the pregnant women participating in this study was 28.67 ± 5.97. Demographic characteristics are listed in Table 1 and reproductive characteristics in Table 2.

Among the demographic factors, there was a significant relationship between OE and pregnant women's education level ($P = 0.020$) and spouse education level ($P = 0.045$) with OE, while a significant relationship was observed between EE and pregnant women's education level ($P = 0.030$). There was no significant relationship between pregnant women's age and occupation, and spouse's age and occupation, mean family income, insurance status and place of residence, and OE and EE ($P > 0.05$) [Table 1].

Among reproductive factors, there was a significant relationship between parity and OE ($P < 0.001$) and EE ($P = 0.001$) and between previous birth experience and OE ($P < 0.001$) and EE ($P < 0.001$), and between participation in pregnancy preparation classes and OE ($P = 0.030$) and EE ($P = 0.010$). Information sources about birth were significantly related to OE ($P = 0.034$) and EE ($P = 0.027$), while birth preference was significantly related to OE ($P < 0.001$) and EE ($P < 0.001$). There was no significant relationship between OE and EE and parity, gestational age, history of infertility, history of maternal, fetal, and neonatal complications in previous pregnancy, current pregnancy status (wanted/unwanted), current fetus sex, fetus preferred sex, and number of participated sessions in birth preparation classes ($P > 0.05$) [Table 2].

Table 1: Individual factors associated with childbirth self-efficacy in two subscales (OE and EE)

		N (%)	OE			EE		
		Total=358	Mean (SD)	Median	P	Mean (SD)	Median	P
Women's age (years)† (min 15, max 45)	≤28	180 (50.3)	102 (43)	102	0.913	108 (45)	105	0.853
	>28	178 (49.7)	101 (42)	105		106 (45)	110	
Spouse's age (years)† (min 20, max 60)	≤32	205 (57.3)	99 (43)	97	0.102	104 (45)	102	0.097
	>32	153 (42.7)	105 (42)	108		111 (44)	113	
Women's education†	Primary or high school	117 (32.7)	111 (44)	107	0.020	116 (45)	112	0.030
	National Diploma	142 (39.7)	97 (44)	96		101 (46)	100	
	University	99 (27.6)	97 (39)	102		104 (42)	110	
Spouse's education††	Primary or high school	150 (41.9)	109 (43)	105	0.045	113 (45)	109	0.091
	National Diploma	121 (33.8)	97 (36)	99		102 (46)	107	
	University	87 (24.3)	95 (55)	100		103 (42)	105	
Women's occupation††	Housewife	332 (92.7)	102 (43)	103	0.730	107 (45)	109	0.736
	Self-employment	19 (5.3)	101 (41)	99		108 (39)	100	
	Employed	7 (2.0)	87 (44)	96		92 (60)	100	
Spouse's occupation††	Selfemployment	244 (68.2)	101 (42)	105	0.217	106 (45)	111	0.316
	Worker	81 (22.6)	108 (43)	102		113 (43)	105	
	Employed	33 (9.2)	90 (45)	100		98 (48)	104	
Mean family income††	Low	167 (46.6)	106 (42)	105	0.135	112 (44)	109	0.053
	Moderate	152 (42.5)	96 (43)	98		100 (44)	102	
	High	39 (10.9)	103 (45)	111		112 (51)	126	
Insurance status†	Yes	340 (95.0)	102 (42)	103	0.091	108 (45)	109	0.231
	No	18 (5.0)	85 (47)	84		93 (51)	98	
Place of residence†	City	324 (90.5)	101 (43)	102	0.424	106 (45)	107	0. 374
	Village	34 (9.5)	108 (43)	106		113 (43)	112	

Note: OE: Outcome Expectancy, EE: Efficacy Expectancy, *N*: Number of observation, SD: Standard deviation, Test Statistic: †Mann-Whitney *U* Test, ††Kruskal-Wallis Test. Value is significant at *P*<0.05

The mean score of total perceived social support was 44.92 ± 10.42 and in three domains of important others, family and friends was, respectively, 17.11 ± 2.93, 15.88 ± 4.64, and 11.94 ± 5.70. There was a significant relationship between the total score of perceived social support and the score of self-efficacy in the two domains of OE and EE (*P* = 0.034, *r* = 0.112). Perceived social support score in the domain of significant others (spouse) was significantly correlated to OE (*P* = 0.006, *r* = 0.145) and EE (*P* = 0.008, *r* = 0.140), and the domain of friends was significantly correlated to OE (*P* = 0.013, *r* = 0.131) and EE (*P* = 0.010, *r* = 0.137). However, there was no significant relationship between perceived social support in the family domain and self-efficacy in the two domains of OE and EE (*P* > 0.05) [Table 3].

Multivariate logistic regression model was used to determine the predictive factors for OE and EE. All demographic, reproductive, and social variables with *P* < 0.2 were entered in the multivariate model. Among the entered variables, the education level of pregnant women and childbirth preference remained in the model as predictors for OE (*P* < 0.05). There was a borderline significant relationship between perceived social support in the domain of significant others and OE (*P* = 0.05). The odds for OE score among pregnant women with primary/high school education was 2.01 times higher than that of pregnant women with national diploma (Odd Ratio [OR] =2.01, 95% Confidence Interval [CI]

1.14-3.56). The odds for OE score among pregnant women who preferred NVD was 7.2 times higher than that of pregnant women who preferred CS (OR = 7.2, 95% CI 4.28- 12.11). The Odds for OE score in pregnant women receiving support from their spouse was 1.08 times higher (OR = 1.08, 95% CI 0.99-1.18) [Table 4].

Among the variables entered into the model, spousal age, birth preference, and birth preparation class attendance remained in the model as predictors for EE (*P* < 0.05). There was a borderline significant relationship between average family income and EE (*P* = 0.05). The odds of the EE score 1.05 times increased for every one-year increase in spousal age (OR = 1.05, 95% CI 1.01-1.10). The odds for EE score among women who had higher family income was 2.86 times higher than that of pregnant women who had lower family income (OR = 2.86, 95% CI 1.21-6.75). The odds of EE score were 7.13 times higher in pregnant women who preferred NVD compared to those who preferred CS (OR = 7.13, 95% CI 4.15-12.23). The odds of EE score were 2.04 times higher in pregnant women attending birth preparation classes compared to pregnant women who did not participate in these classes (OR = 2.04, 95% CI 1.18-3.51) [Table 5].

Discussion

The results of this study showed that there was no significant relationship between OE and EE and the age

Table 2: Reproductive factors associated with childbirth self-efficacy in two subscales (OE and EE)

		N (%)	OE			EE		
		Total=358	Mean (SD)	Median	P	Mean (SD)	Median	P
Gravida[†]	Primigravida	203 (56.7)	99 (42)	100	0.114	104 (44)	104	0.107
	Multigravida	155 (43.3)	106 (44)	107		111 (46)	111	
Parity[†]	Primiparous	260 (72.6)	97 (42)	99	<0.001	102 (45)	104	0.001
	Multiparous	98 (27.4)	115 (41)	115		120 (43)	127	
Gestational age[††] (weeks)	37–38	165 (46.1)	101 (47)	103	0.655	106 (48)	107	0.523
	39–40	155 (43.3)	101 (39)	100		106 (42)	105	
	41–42	38 (10.6)	101 (43)	105		114 (46)	113	
History of infertility[†]	Yes	37 (10.3)	102 (33)	107	0.624	109 (55)	113	0.464
	No	321 (89.7)	101 (42)	102		107 (44)	105	
Previous complications[†]	Yes	82 (52.9)	98 (45)	102	0.058	103 (47)	108	0.057
	No	73 (47.1)	113 (41)	111		118 (44)	114	
Previous childbirth experience[†]	Easy	64 (65.3)	126 (38)	133	<0.001	133 (39)	139	<0.001
	Hard	34 (34.7)	93 (38)	94		96 (41)	103	
The current status of pregnancy[††]	Wanted	302 (84.3)	101 (44)	102	0.867	107 (45)	107	0.804
	Unwanted	56 (15.7)	102 (37)	105		109 (42)	109	
Fetal sex[†]	Female	164 (45.8)	100 (43)	101	0.527	105 (45)	105	0.336
	Male	194 (54.2)	103 (43)	105		109 (45)	111	
Fetal preferred sex[††]	Female in terms of both	102 (28.5)	103 (44)	105	0.677	110 (47)	111	0.548
	Male in terms of both	83 (23.2)	104 (11)	109		109 (43)	114	
	Male or Female for one of them	50 (14.0)	97 (40)	91		102 (40)	98	
	No matter	123 (34.3)	100 (44)	105		105 (47)	105	
Participation in birth preparation classes[†]	Yes	105 (29.3)	109 (33)	109	0.030	117 (35)	114	0.010
	No	253 (70.7)	98 (45)	98		103 (48)	103	
Number of sessions attended[†]	≤ 4	62 (59.0)	109 (37)	111	0.878	116 (37)	113	0.820
	>4	43 (41.0)	110 (34)	106		118 (32)	120	
Source of information on childbirth (If you don't attend class)[††]	Doctor	166 (65.6)	94 (45)	91	0.034	97 (48)	96	0.027
	Midwife	45 (17.8)	112 (40)	107		118 (42)	116	
	Other resources (internet, book, etc)	42 (16.6)	103 (48)	107		108 (52)	109	
Birth preference[††]	NVD	198 (55.3)	120 (37)	122	<0.001	127 (370)	133	<0.001
	CS	124 (34.6)	76 (39)	78		80 (43)	83	
	No idea	36 (10.1)	88 (34)	90		90 (36)	91	

Note: OE: Outcome Expectancy, EE: Self-Efficacy Expectancy, N: Number of observation, SD: Standard Deviation, Test Statistic: [†]Mann-Whitney *U* Test, [††]Kruskal-Wallis Test, Value is significant at *P*<0.05

Table 3: Correlation of total score and perceived social support domain score and childbirth self-efficacy score in two subscales (OE and EE)

Dimensions	OE		EE	
	P	r	P	r
Family	0.615	0.027	0.690	0.021
Friends	0.013	0.131	0.010	0.137
Significant others	0.006	0.145	0.008	0.140
Total score	0.034	0.112	0.034	0.112

Note: OE: Outcome Expectancy, EE: Efficacy Expectancy, Test Statistic: Spearman's rho, Value is significant at *P*<0.05

of pregnant women, spousal age, female occupation, spouse occupation, mean family income, insurance status, and place of residence. There was no significant relationship between EE and spousal education level. In the present study, among the demographic factors, there was a significant relationship only between OE and EE and pregnant women's education level, and between OE and spousal education level. The mean score of OE and EE was higher among low-educated pregnant women.

Furthermore, the mean score of the OE was higher among pregnant women with less educated spouses. According to the multivariate logistic regression model, pregnant women's education level was a predictor for OE score and pregnant women with lower education had higher OE scores. According to some studies, women with higher education and college education were more afraid of birth.[29,30] In contrast, according to one study, women with lower education reported higher levels of fear of birth, and that higher level of fear of birth was associated with lower levels of childbirth self-efficacy.[10] It is believed that women with higher education may attempt to obtain more information regarding pregnancy and childbirth through searching for information sources, including the internet and mass media, which can increase their fear of birth. That is, the ease of access to information sources may not always be accompanied by access to comprehensive, accurate, and reliable information, as supported this belief by Størksen *et al*. They showed that inadequate information on potential

Table 4: Predictive factors related to childbirth self-efficacy in Outcome Expectancy subscale

		B	OR	P	95% CI	
					Lower	Upper
Women's education	Primary or high school	0.702	2.019	0.015	1.145	3.560
	University	0.415	1.514	0.168	0.839	2.731
	National Diploma (reference group)					
Childbirth preference	NVD	1.975	7.208	<0.001	4.287	12.119
	No idea	0.201	1.233	0.634	0.534	2.800
	CS (reference group)					
Perceived Social Support	(significant others)	0.085	1.089	0.05	0.999	1.187
(Constant)		-2.847	0.058	<0.001		

Note: Multiple logistic regression model, OR: Odds Ratio, CI: Confidence Interval, Value is significant at *P*<0.05

Table 5: Predictive factors related to self-efficacy of childbirth in Self-Efficacy Expectancy subscale

		B	OR	P	95% CI	
					Lower	Upper
Spouse's age (years)		0.057	1.058	0.009	1.014	1.104
Women's education	Primary or high school	0.585	1.796	0.052	0.995	3.242
	University	0.584	1.794	0.062	0.971	3.313
	National Diploma (reference group)					
Family income	Low	0.236	1.266	0.392	0.738	2.171
	High	1.052	2.864	0.016	1.215	6.752
	Moderate (reference group)					
Childbirth preference	NVD	1.964	7.131	0<0.001	4.156	12.232
	No idea	0.199	1.220	0.656	0.508	2.927
	CS (reference group)					
Participation in birth preparation classes	Yes	0.714	2.041	0.010	1.186	3.515
	No (reference group)					
(Constant)		-3.709	0.025	0<0.001		

Note: Multiple logistic regression model, OR: Odds Ratio, CI: Confidence Interval, Value is significant at *P*<0.05

or probable risks may be associated with greater fear of birth and reduced childbirth self-efficacy[29]

In the present study, there was a significant relationship between OE and EE and reproductive factors, including parity, previous birth experience, participation in prenatal preparation classes, information sources obtained about pregnancy and birth, and birth preference. The mean score of OE and EE was higher among multiparous women who had an easy previous birth experience, those who preferred NVD and attended birth preparation classes, and received information from their midwives if they do not attend the classes. In this regard, based on the results of a previous study on multiparous women, the self-efficacy score of the multiparous women was significantly higher compared to nulliparous women.[16] According to another study which was conducted with the aim of comparing the level of fear and childbirth self-efficacy in primiparous and multiparous women, the level of fear of childbirth was higher in primiparous women and the level of childbirth self-efficacy was lower in both of the domains of OE and EE.[13] According to the results of another study, the OE score did not differ significantly between nulliparous and multiparous groups.[16] It is believed that the fear of

birth in nulliparous women due to lack of experience and the fear of birth among multiparous women due to possible unpleasant experiences in previous childbirth may affect self-efficacy in choosing NVD, as other researchers have pointed out.[6,18] In addition, based on Bandura's theory, the first and most important effectors on self-efficacy are one's personal experience and performance accomplishments.[25]

Similar to the results of the present study, previous studies showed that birth preparation classes can reduce the fear of childbirth and increase self-management and self-efficacy, increase NVD rate,[14,15,31-34] while one study reported that participation in prenatal classes was not associated with increased self-efficacy.[20] Another study also found no relationship between prenatal education and fear of childbirth. According to the researchers of the present study, the inconsistency in the findings may be due to the poor quality of teaching in prenatal classes, as other researchers support the belief.[30] Although, in these classes, education and promotion of knowledge of pregnant women is necessary to promote positive attitudes toward NVD, as a physiological phenomenon, but this education is not solely enough and pregnant women should also be ensured that they can effectively practice what they have learned.

In the present study, there was a significant relationship between the two domains of perceived social support score, including significant others (spouse) and friends, and the two domains of self-efficacy (OE and EE). According to the multivariate logistic regression model, social support perceived by the spouse was a predictor of OE. In line with this finding, according to one study, according to some studies, there was an inverse relationship between perceived social support and fear of birth. The fear of birth was higher in pregnant women who reported less social support[29,35] However, according to the results of another study, satisfaction and happiness with the relationship with the spouse failed to predict the fear of birth and that individual factors had a much more important role in predicting fear of birth compared to interpersonal factors.[23] It is considered that the discrepancy in the findings may be due to the fact that the adequacy and the quality of interpersonal relationships may influence one's perception of social support[36]

Limitations and strengths

One of the strengths of this study was the assessment of different demographic, reproductive, and social factors. This study also had some limitations that lead to caution in generalizing the results. Majority of pregnant women in this study were from urban areas and sampling was performed at a university-affiliated government center. As a result, the subjects in this study may be less diverse in terms of socioeconomic factors. Therefore, interventional studies are recommended in future with more attention to socioeconomic differences.

Conclusion

Based on the findings of the present study, pregnant women who preferred NVD participated in prenatal preparation classes, or obtained information from midwives in case they did not attend the classes. They also had higher scores in the subscales of childbirth self-efficacy in both OE and EE. The significant other domain of the perceived social support was an important predictor of OE. In this regard, it seems that holding preparatory classes focused on concepts including childbirth self-efficacy should be considered more seriously by midwives and healthcare providers. Inviting spouse to participate in pregnancy and childbirth preparation classes can provide an opportunity for couples to integrate and engage and can lead to a better relationship between the pregnant woman and her spouse and enhance perceived social support.

Conflicts of interest

There are no conflicts of interest.

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