



## **Factors related to childbirth self-efficacy among primigravida in Yogyakarta**

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### **ABSTRAK**

**Latar Belakang:** Efikasi diri persalinan mengacu pada kepercayaan diri ibu hamil dalam dirinya untuk menghadapi persalinan dan berkontribusi terhadap persepsinya tentang sakit selama persalinan. Ibu dengan efikasi diri rendah merasa gugup, kurang tenaga, dan lebih banyak mengungkapkan rasa takut, sehingga proses persalinan tidak berjalan lancar dan berlangsung lebih lama sehingga menimbulkan rasa sakit yang lebih besar baik bagi ibu maupun bayinya. Ibu hamil dengan efikasi-diri persalinan yang tinggi memiliki niat lebih tinggi untuk mencoba persalinan pervaginam, sedangkan mereka yang memilih operasi caesar memiliki keyakinan efikasi diri lebih rendah..

**Tujuan:** Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi efikasi diri persalinan pada ibu primigravida.

**Metode :**

Penelitian ini menggunakan metode observasi analitik dengan desain cross sectional. Penelitian ini dilakukan di Puskesmas dan dua klinik bersalin di Yogyakarta dengan sampel 112 ibu hamil. Teknik sampling menggunakan teknik purposive sampling sesuai dengan kriteria. Penelitian ini menggunakan kuesioner Childbirth Self-Efficacy (CBSEI), Fear of Childbirth (FOC), dan kuesioner demografi data. Uji independent sample t-test, ANOVA, koefisien korelasi Pearson digunakan untuk mengetahui faktor-faktor yang berhubungan dengan efikasi diri melahirkan.

**Hasil:** Hasil penelitian menunjukkan bahwa faktor yang berhubungan dengan efikasi diri dalam menghadapi persalinan adalah kehadiran dalam kelas ibu hamil dan prenatal yoga dengan nilai  $p < 0,000$  ( $p < 0.05$ ). Selain itu, terdapat hubungan negatif yang signifikan antara efikasi diri persalinan dan ketakutan dalam menghadapi persalinan ( $r = -.34$ ,  $p < .01$ ). Dengan kata lain, ibu hamil dengan efikasi diri melahirkan yang lebih tinggi memiliki ketakutan yang lebih sedikit terhadap persalinan.

**Kesimpulan:** Faktor yang mempengaruhi tingkat efikasi diri persalinan yaitu kehadiran ibu dalam kelas ibu hamil / antenatal class, prenatal yoga, dan ketakutan ibu akan persalinan. Hasil penelitian ini memberikan pemahaman yang lebih baik tentang faktor-faktor yang berhubungan dengan efikasi diri persalinan. Berdasarkan hasil penelitian, strategi untuk meningkatkan efikasi diri melahirkan yaitu fokus pada penurunan tingkat ketakutan akan persalinan yang dapat dilakukan dengan mengikuti kelas ibu hamil dan melakukan prenatal yoga.

**KATA KUNCI :** efikasi diri; kecemasan; persalinan; primigravida

### **ABSTRACT**

**Background :** Childbirth self-efficacy refers to a woman's self-confidence in her ability to cope with labor and contributes significantly to her perception of pain during labor. Mothers with low self-efficacy felt nervous, felt they lacked strength, and expressed more fear, so that the labor process did not go smoothly and lasted longer, causing greater pain for both the mother and baby. Pregnant women with high childbirth self-efficacy had

higher intention to attempt vaginal birth, while those choosing caesarean had lower self-efficacy beliefs.

**Objectives:** This study was to determine factors related childbirth self-efficacy among primigravida.

**Methods:** This study used analytic observational method with cross sectional design. This research was conducted at Community Health Centers and two maternity clinics in Yogyakarta with 112 sample pregnant woman. They were recruited using a purposive sampling technique based on the criteria. The study used Childbirth Self-Efficacy (CBSEI) scale, the Fear of Childbirth (FOC) scale, and demographic data questionnaires. The independent sample t-test, ANOVA, pearson's correlation coefficient, to determine the factors related childbirth self-efficacy.

**Results:** The results of this study indicate that the factors associated with childbirth self-efficacy were antenatal class and prenatal yoga with a p value of 0.000 ( $p < 0.05$ ). In addition, there is a significant negative correlation between childbirth self-efficacy and fear of childbirth ( $r = -.34$ ,  $p < .01$ ). In other words, pregnant women with higher childbirth self-efficacy meant less fear of childbirth.

**Conclusions:** Factors related childbirth self-efficacy were antenatal class, prenatal yoga, and fear of childbirth. The results of this study provided a better understanding of factors related childbirth self-efficacy. Based on the results, strategies to increase childbirth self-efficacy should focus on decreasing the level of fear of childbirth, which can be done by attending prenatal education and doing prenatal yoga.

**KEYWORD :** self-efficacy; fear; labor; primigravida

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## INTRODUCTION

Childbirth self-efficacy refers to a mother's confidence or perception of her own ability to give birth, which can then influence her future birth preferences (1). Women with high efficacy expectations (i.e., high confidence about labor) are able to utilize cognitive coping behaviors to deal with labor pain and, in turn, reduce the likelihood of medical intervention. Women who have low self-efficacy for childbirth may be limited in their ability to generate motivation for coping with the labor experience, since efficacy beliefs are primary to the cognitive regulation of motivation (2). A woman's confidence in her ability to cope with labor contributes significantly to her perception of pain during labor (3).

A number of studies have found childbirth self-efficacy is associated with perinatal

outcomes. Dilks and Beal (1997) found that participants with high childbirth self-efficacy had higher intention to attempt vaginal birth after caesarean, while those choosing elective caesarean after previous caesarean had lower self-efficacy beliefs than either first time mothers or women choosing vaginal birth after caesarean (4). Carlsson and colleagues (2015) carried out a cross-sectional study of childbirth self-efficacy intervention with the birth outcomes among 406 nulliparous pregnant women in Halland, Sweden. They found that women who reported high self-efficacy had less epidural analgesia compared to women with low self-efficacy (5).

Manning and Wright (1983) found that women with higher childbirth self-efficacy were associated with an increased capacity to cope with labor pain (6). Lowe (2000) later

identified childbirth self-efficacy as the conceptual framework predicting confidence for coping with labor. There is substantial evidence to support the role of maternal confidence in the utilization of cognitive coping mechanisms during childbirth (7, 8).

Mothers with high self-efficacy were more able to adapt to labor and to control themselves. Mothers with low self-efficacy felt nervous, felt they lacked strength, and expressed more fear, so that the labor process did not go smoothly and lasted longer, causing greater pain for both the mother and baby. These women did not have a pleasant experience of birth and felt less satisfied with the delivery process, and raise their self-efficacy (9). Also, mother will feeling unhappy with the presence of the baby and will have an impact on the role of being mother. On the other hand, the trauma of childbirth can affect the mother's ability to take care for, affect the process of breastfeeding, and make new mother depression and stress so that it can interfere with the mother's bond with the baby and have an effect long-term on psychological well-being for both mother and child.

Good self-efficacy results in better ability to adapt to labor pain (7). Women with higher childbirth self-efficacy during pregnancy will affect maternal self-confidence during labor. A randomized clinical study showed that higher self-efficacy of nulliparous pregnant women can reduce fear and reduce the amount of selective caesarean section (10).

Childbirth self-efficacy has been shown to affect pregnant women's motivation to go through with natural childbirth and avoiding needless medical interventions. If a mother has low self-efficacy, which means she considered that she cannot handle the difficulty of the labor, she may choose cesarean section over natural delivery, even without any specific medical reasons. Although some studies have been done about childbirth self-efficacy, most have

focus on physical, not psychological factors. Therefore, this study will design to explore what factors related to childbirth self-efficacy. The results of this study should help policy makers and health care providers in Indonesia to design interventions to increase self-efficacy for nulliparous women facing labor, with the goal of improving childbirth outcomes and reducing the unfavorable factors of prolonged labor.

## **MATERIALS AND METHODS**

This study used a descriptive correlational design to identify factors such as demographic factors, and fear of childbirth related to childbirth self-efficacy among primigravida. The populations in this study were pregnant women who visit antenatal care at a primary health center and two maternity clinics in Yogyakarta, from July 2019 to September 2019.

The entrance criteria were as follows: (1) Primigravida, (2) age ranged 18 to 35 years, (3) have no complication during the current pregnancy, (4) singleton pregnancy, and (5) gestational age ranged 37 to 42 weeks, (6) anticipated vaginal delivery. Exclusion criteria include Exclusion criteria include refusing to participate in this study. The sample research was determined using purposive sampling technique with 112 pregnant women. The instruments used to explore the research questions were the Childbirth Self-Efficacy Instrument (CBSEI), the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) version A, and a questionnaire on demographic characteristics. The Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) was developed by Wijma (1998) to measure fear of childbirth during pregnancy. The W-DEQ has internal consistency reliability of 0.87, which is appropriate for a research instrument. The W-DEQ has been translated into Indonesia and validated with the Cronbach's alpha coefficient was 0.90.

Data was first entered into Microsoft Excel and was then analyzed using SPSS software version 2.0. for further analysis. Independent samples *t*-test and ANOVA was used to find out the difference between demographic factors and childbirth self-efficacy. The Pearson's correlation was applied to determine the relationship between age, body mass index, fear of childbirth, and childbirth self-efficacy.

## RESULTS AND DISCUSSION

### RESULTS

The study respondents ranged in age from 18 to 35 years (*mean* = 25.85, *SD* = 3.25). Approximately one-fourth of all participants had obtained college or university level education (*n* = 25, 22.3%). Sixty-six participants were working or self-employed (58.9%). More than two-thirds of the women had family incomes less than 3,000,001 per month (*n* = 77, 68.8%). Nearly half of participants had received education before labor (*n* = 53, 47.3%). Around two thirds of participants (*n* = 75) met the criteria for

overweight on the body mass index in the third trimester and around one-thirds of participants were performed prenatal yoga (*n* = 36). The characteristic respondents are shown in **Table 1**.

**Table 1. Respondents' demographic information**

Variables	<i>n</i>	%	<i>M</i>	<i>SD</i>
Age (years)			25.9	3.3
Education				
Lower than High School	18	16.1		
High School	69	61.6		
College or University	25	22.3		
Occupation				
Not Working	46	41.1		
Working or Self-Employed	66	58.9		
Monthly Family Income (11)				
0 -3.000.000 <sup>a</sup>	77	68.8		
> 3.000.000 - 5.000.000 <sup>b</sup>	32	28.5		
> 5.000.000 <sup>c</sup>	3	2.7		
Prenatal Education				
No	59	52.7		
Yes	53	47.3		
Body Mass Index (3 <sup>rd</sup> trimester)				
Obesity	20	17.8		
Overweight	75	67.0		
Normal	17	15.2		
Prenatal Yoga				
No	76	67.9		
Yes	36	32.1		

**Table 2. Differences in the Childbirth Self-Efficacy and Demographic Data**

Variables	<i>n</i>	Childbirth Self-Efficacy		<i>p</i>
		<i>M</i> ± <i>SD</i>	<i>t/F</i>	
Prenatal Education			2.68	.008
Yes	53	204.74±33.77		
No	59	186.51±37.75		
Monthly Family Income (11)			.74	.478
0 -3.000.000 <sup>a</sup>	77	192.34±36.77		
> 3.000.000 - 5.000.000 <sup>b</sup>	32	200.75±37.19		
> 5.000.000 <sup>c</sup>	3	207.00±42.33		
Occupation			.84	.402
Not Working	46	198.65±39.61		
Working or Self-Employed	66	192.68±35.01		
Education			3.53	.092
Lower than High School	18	176.22±35.35		
High School	69	196.32±35.65		
College or University	25	205.48±37.83		
Body Mass Index (3 <sup>rd</sup> trimester)			1.12	.329
Obesity	20	214.25±42.05		
Overweight	75	188.25±33.03		
Normal	17	203.00±39.54		
Prenatal Yoga			3.87	<.001
No	76	214.06±36.29		
Yes	36	186.17±33.89		

**Table 2** shows that, statistically antenatal education and prenatal yoga had an effect on childbirth self-efficacy with p value ( $p < .05$ ). While monthly family income, mothers occupation, mother education level, and body mass index had no effect on childbirth self-efficacy where p value ( $p > .05$ ).

**Table 3** shows a Pearson correlation of childbirth self-efficacy and fear of childbirth as well as other demographic variables. There is a significant negative correlation between childbirth self-efficacy and fear of childbirth ( $r = -.34$ ,  $p < .01$ ). In other words, higher childbirth self-efficacy meant less fear of childbirth.

**Table 3. Relationship between Childbirth Self-Efficacy, Fear of Childbirth, and Demographic Data**

Variabel	1	2	3	4
Childbirth Self-Efficacy	-			
Fear of Childbirth	-.34**	-		
Age	.12	.01	-	
Body Mass Index	.10	-.11	.11	-

\*\* $p < .01$ , two tailed

## DISCUSSION

Self-efficacy in among primigravida in the primary health centers in Yogyakarta. The results showed that factors influencing childbirth self-efficacy included antenatal education, and prenatal yoga. In this study, mothers who attended prenatal education had a high childbirth self-efficacy. Mothers who participated in prenatal education which teaches knowledge of the labor process and childbirth issues, including pain management, psychological preparation, baby care, and motherhood, will affect their knowledge (12). Prenatal education has been shown to have a beneficial effect on confidence among pregnant women (13). According to the self-efficacy theory, a people may believe that certain behaviours can help with coping in a situation they would rather avoid (2).

Prenatal education is a group learning process that allows pregnant women to improve

their knowledge and skills related to pregnancy. Sessions provide information about the labor and delivery process and teach relaxation and breathing techniques, push bearing, as well as how to manage discomfort and pain during labor. A sense of being well prepared may explain why mothers who attended prenatal education had higher childbirth self-efficacy.

In this study, prenatal yoga was associated with higher childbirth self-efficacy. Pregnant women who do prenatal yoga are getting higher self-efficacy level because one of the movements of prenatal yoga can help the baby move into the pelvic opening to the optimal position for birth. Also, there are relaxation techniques that can reduce women's discomfort during pregnancy and increase confidence in the birth process (14).

This study found that childbirth self-efficacy was significantly correlation with fear of childbirth. Women with lower childbirth self-efficacy had greater fear of childbirth, in line with results of other studies (7, 15). Many studies have demonstrated the close connection between childbirth self-efficacy and fear of childbirth (16) (17). Thus, the inverse relationship between fear of childbirth and childbirth self-efficacy observed in this study is in line with self-efficacy theory and the results of previous studies.

According to Bandura's theory, efficacy beliefs are the basic of thoughts that control motivation, so women who have low childbirth self-efficacy may have limited ability to motivate themselves to prepare for labor. People anticipating a negative experience beyond their control suffer from high levels of stress and anxiety (2, 18). If they think they cannot cope well, they feel worried and fearful about their labor. Consistent with this, other studies have shown that higher levels of anxiety and fear of childbirth are associated with lower childbirth self-efficacy in nulliparous women.

## CONCLUSION AND RECOMMENDATION

Prenatal education and prenatal yoga exercise are contribute to increase childbirth self-efficacy. Results also revealed that higher levels of childbirth self-efficacy will reduce fear of childbirth. Pregnant women with lower childbirth self-efficacy have greater fear of childbirth, and fear of childbirth has been shown to slow the progress of labor. Prenatal education and prenatal yoga offers more effective approaches to reduce fear and increase childbirth self-efficacy.

We suggest that the screening of FOC and CBSEI should be routinely used in the third trimester. This screening can help midwives and health care providers assess a woman's level of fear and self-efficacy. For health services to further enhance the promotion and implementation of antenatal education and prenatal yoga for all pregnant women.

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