

Effectiveness of Educational program on Primigravida Women's Childbirth Self-Efficacy at Al-Elwea Maternity Hospital in Baghdad City

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ABSTRACT

Women's perception of labor pain severity varies depending on several factors such as self-efficacy, her expectations, readiness for childbirth, anxiety, and support.

Objectives: To determine the effectiveness of the educational program on primigravida women's childbirth self-efficacy (CBSE) and to find out the relationship between CBSE and demographical, reproductive variables.

Methods: Quasi-experimental study design pre-test and post-test for both the study and the control group. The educational program provided for the study group and post-test conducted in the first stage of labor for both groups. Data were analyzed through the use of SPSS.

Results: The highest percentage of primigravida women have a low CBSE among both groups. There are no significant differences between the study and control group in the pre-test period however, there are highly significant differences between study and control group in the post-test period. There are significant differences between women's CBSE and some study variables during the pre-test, which include women's age, delivery preference, educational level, and childbirth.

Conclusion: Childbirth self-efficacy among primigravida women was low before receiving the educational program however, it was enhanced in the post-test period. The educational program is effective in enhancing CBSE.

Recommendations: Further studies are required to evaluate CBSE among a large number of nulliparous and multiparous at various hospitals to identify factors determinant for and CBSE.

Keywords; Primigravida; Childbirth; Self-efficacy; CBSE

Introduction

Self-efficacy is a complex cognitive mechanism that describes a personal belief in one's ability to effectively perform a required action in a given situation. Self-efficacy is a necessary condition for behavior modification and self-control^[1]

Two cognitive evaluations compose this construct, when an individual is exposed to a new situation, they first evaluate which basic ability and behavior will be appropriate in that situation (i.e. Outcome expectancy). Second, the individual assesses their own ability to act and learn the necessary skills (i.e. Efficacy expectancy). The concept is essential to recognize because people can believe a certain behavior is beneficial but lack confidence in their ability to carry it out^[2].

If a pregnant woman believes she can't be able to control her labor, she may request a caesarian section (CS) without medical justification, due to her fear and anxiety. Except for medical reasons, studies have shown that the maternal requesting CS is the cause of an increase in the CS rate. According to some studies, the most common explanation for nulliparous women choosing CS was fear of childbirth^[3].

To prevent the FOC, pain of childbirth, and also to increasing the prenatal self-efficacy, it can be used to educate and provide guidance to increase women childbirth awareness and improve their psychological readiness^[4].

Small-group antenatal education can provide a supportive environment for enhancing expectant parents' self-efficacy. Discussing feelings and concerns about birth and parenthood with a midwife and other couples in similar situations will help parents build useful support networks, increase their knowledge of their own resources, and boost their confidence in their ability to cope childbirth. There is currently insufficient research to determine whether antenatal education in small groups affects obstetric or psychosocial outcomes^[5].

Methods

Quasi-experimental study design pre-test and post-test for both the study and the control group was conducted among primigravida women attending outpatient clinics at Al-Elwea maternity hospital. The study was performed from October (2020) to February (2021). Non probability purposive sample used to collect the data from (35) women for each group. Inclusion criteria First pregnancy, Singleton pregnancy, Gestational age of 28 to 32 weeks, has no medical and obstetrical problem, Literacy, Accept participation in study. A pilot study conducted in order to determine the reliability of the questionnaire in a sample of 10 women who excluded from the study sample $r1 = 0.88$. Content validity was determined through a panel of 21 experts their experience mean and (SD) 25.8 (11.1). The data was collected after obtaining the agreement from women to participant in this study. Questionnaires was completed through structured interview in both the study and control groups (pretest). Necessary coordination was conducted for study group to participate in education program. The education program was conducted using various methods includes lecture, discussion, demonstration techniques, and the use positive birth experience from multiparous women. The educational sessions were provided to the study group and follow up through social media, while the control group receive the routinely care. Questionnaires was completed through structured interview for both the study and control groups (post-test) at the delivery room in the first stage of labor. Data are analyzed through the use of SPSS version 26.

Results

Table 1. Differences of women's Childbirth Self-efficacy with some study variables

Variable	Childbirth Self-Efficacy Study Group							
	Pre-test				Post-test			
	F	Mean	SD	ANOVA	F	Mean	SD	ANOVA
<i>Age / years</i>								
15 - 19	15	22.53	3.99	F= 5.08 d.f= 3 P= .006 S	15	74.8	3.58	F= 1.2 d.f= 3 P= .32 NS
20 - 24	16	21.87	4.36		16	68.93	13.97	
25 - 29	3	34	11.78		3	75.66	3.78	
30 - 34	1	25	-		1	80.	-	
Total	35	23.28	5.87		35	72.34	10.15	
<i>Educational level</i>								
Read & write	2	22.5	3.53	F= 9.31 d.f= 5 P= .000 HS	2	69.0	2.82	F= .20 d.f= 5 P= .95 NS
Primary school	11	22.09	4.20		11	73.81	5.25	
Intermediate school	15	21.93	3.36		15	71.13	14.47	
Preparatory school	1	29.0	.		1	68.0	.	
Institute graduate	3	19.0	3.0		3	73.66	8.38	
College graduate	3	37.33	6.50		3	75.33	4.04	
Total	35	23.28	5.87		35	72.34	10.15	
<i>Gestational Age/ weeks</i>								
28	3	29.66	8.08	F= 2.08 d.f= 4 P= .10 NS	3	75.66	3.78	F= .68 d.f= 4 P= .60 NS
29	8	21.75	4.13		8	67.25	19.30	
30	6	20.83	3.06		6	74.66	3.66	
31	6	20.83	3.54		6	72.50	6.18	
32	12	25.16	7.13		12	73.66	5.36	

Total	35	23.28	5.87		35	72.34	10.15	
Period before conceive / months								
<6	23	22.3	4.92		23	71.04	12.14	
7-12	6	28.0	8.74	F= 1.71	6	74.6	2.65	F= .42
13-18	2	26.5	3.53	d.f= 4	2	70.0	2.82	d.f= 4
19-24	1	19.0	.	P= .17	1	78.0	.	P= .78
>24	3	20.3	3.78	NS	3	77.33	3.78	NS
Total	35	23.28	5.87		35	72.34	10.15	
Delivery Preference								
NVD	14	26.14	7.30	F= 6.38	14	74.64	5.27	F= 1.2
CS	21	21.38	3.81	d.f= 1	21	70.80	12.29	d.f= 1
Total	35	23.28	5.87	P= .01	35	72.34	10.15	P= .28
				S				NS

*HS: Highly Sig. = $P < 0.01$, S: Sig. = $P < 0.05$, NS.: Non Sig. = $P > 0.05$

Table (1) results presents that there are significant differences between women's age, delivery preference and childbirth self-efficacy during pre-test. Also, there is highly significant differences between primigravida's educational level and childbirth self-efficacy in pre-test period. However, there are no significant differences between childbirth self-efficacy and the left-over variables among study group.

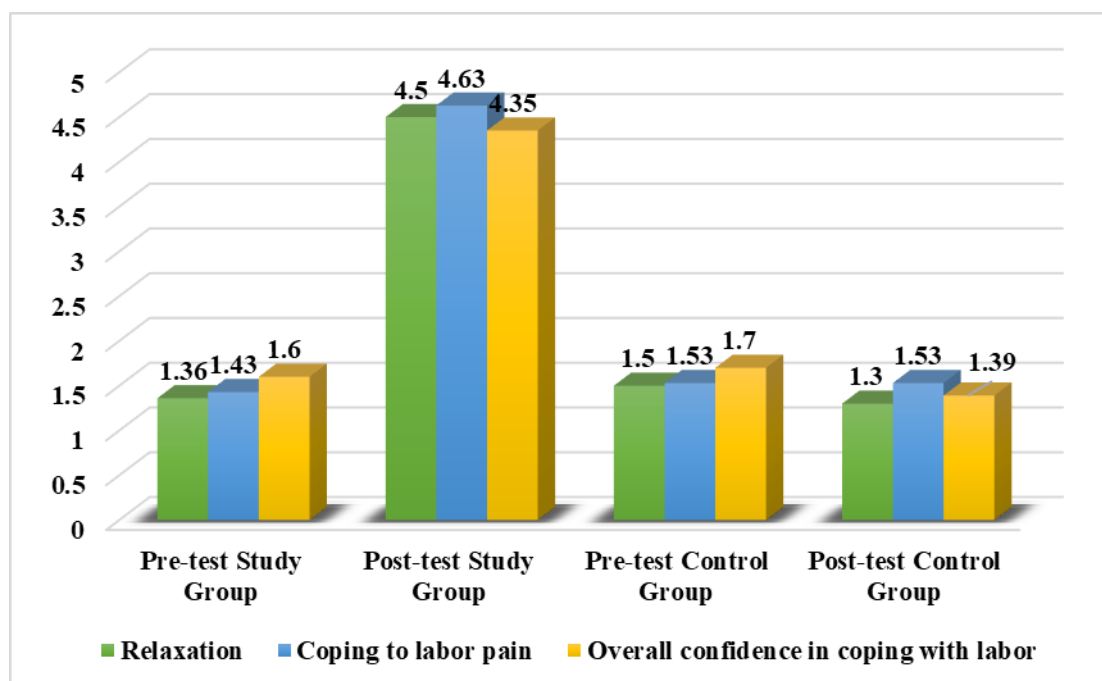


Figure 1.Cluster Bar Chart with Reference global mean of score distribution (pre/ post) test regarding childbirth self-efficacy sub-domain

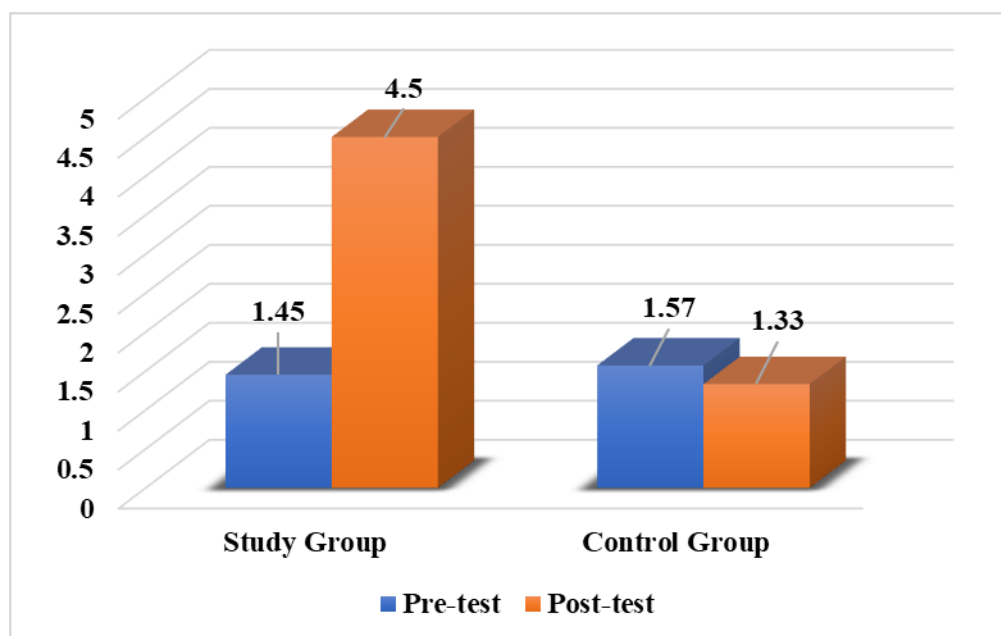


Figure 2. Cluster Bar Chart with Reference grand mean of score distribution (pre/ post) test regarding women's childbirth self-efficacy

Discussions

The current study results show that highest percentage (45.7%) of the study group are at the age group (20-24) years and (40%) of the control group are at the age group (15-19) years, mean age SD (20.28 ± 3.54) and (20.85 ± 3.58) for study and control group respectively. There are no significant differences between study groups.

The findings of the present study are consistent with Sercekus, (2007) who showed that there were no significant differences between the demographic characteristics of the women in both groups. More than half (58%) were housewives [6]. Also, Ahmed & Khairi (2019) revealed that the mean age and SD (23.4 ± 5.5) years in the study group. The majority of them (83.33%) were housewives. The mean age and SD (20.2 ± 4.1) years in the control group. All of them (100%) were housewives [7].

The results of the study are inconsistent with Mildren, (2018) found the mean age and SD (29.52 ± 5.013) Ages ranged from (18 to 43) years of age. The majority of them (80%) were had completed Year 12/Diploma level or achieved degree level or postgraduate education and more than one-third (40.9%) unemployed [8].

The current study show that the highest percentage of study sample have low childbirth self-efficacy, while it was enhanced among study group after receiving the educational program which supported by Timmermans, (2019) who found that there was no significant difference between the intervention group and the control group in CBSE before the intervention, while CBSE mean score was significantly increased among the intervention group in post-test. A CBSE mean score was enhanced in most of the studies, these result in line with Sercekus et al., (2016); Toohill et al. (2014) and other [9] [10] [11].

The present study found there are significant differences between women's age, education, delivery preference and childbirth self-efficacy. Zhao et al., (2021) showed that there was a

significant association between CBSE and pregnant women's age, BMI, and self-rated health status. Women with low CBSE were older age, higher BMI, and worse self-rated health status. Interventions focusing on Childbirth self-efficacy improvement through prenatal education should take more attention especially for older pregnant, obese, are low physical activity, and poor health [12].

The results of the study are inconsistent with Schwartz et al., (2015) who found no relationship between age, education, or of having a history of abortion and self-efficacy for first stage of labor in nulliparous or multiparous women [13].

Conclusion

There were highly significant differences between the study and control group in CBSE during post-test, the education program was effective in enhancing study group CBSE. There are significant differences between women's childbirth self-efficacy and women's age, delivery preference, educational level, and CBSE during pre-test period among study group. It is important to recognize pregnant women with low CBSE, providing them support, encouragement, and management as need before childbirth.

Limitations and Future Studies

Further studies are required to evaluate childbirth self-efficacy among large number of nulliparous and multiparous at various hospitals to identify factors determinant for and childbirth self-efficacy.

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