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ASSESSMENT OF EFFECTIVENESS OF INTERMITTENT MANUAL BREAST AND NIPPLE STIMULATION ON CERVICAL RIPENING AMONG PRIMI GRAVIDA MOTHER

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ABSTRACT

Purpose: *To evaluate the effectiveness of Intermittent manual breast and nipple stimulation on primi gravid mothers at Government hospital, chengalpet, kancheepuram District, Tamilnadu, and South India.* ***Methods:*** *Primi mothers of the experimental group were administered intermittent manual breast and nipple stimulation for 10 minutes on each breast alternatively for one hour following half an hour interval three times a day. At the end of third manual breast and nipple stimulation, the post assessment level of cervical ripening by Bishops score was done for the mother of both the experimental and control groups. Independent t test was used to obtain P Value. P value of <0.05 were considered to indicate significant statistical difference.* ***Result:*** *The result of the study after intermittent manual breast and nipple stimulation analysis depicted that regarding experimental group none of the mothers were unfavourable cervix and all 30 (100%) mothers had favourable cervix. Considering the control group 23 (76.7%) mothers had unfavourable cervix and 7 (23.3%) mother had favourable cervix.*

KEY WORDS

Intermittent manual breast and nipple stimulation and Primi gravid.

INTRODUCTION

Cervical ripening refers to the softening of the cervix that typically begins prior to the onset of labor. Cervical ripening results from a series of complex biochemical processes that ends with rearrangement and realignment of the collagen molecules. The cervix thins, softens, relaxes and dilates in response to uterine contractions, allowing the cervix to easily pass over the presenting fetal part during labor (Aaron E Goldberg).

Breast massage and nipple stimulation have been shown to facilitate the release of oxytocin from the posterior pituitary gland. The method for "ripening of cervix in anticipation of labour is manual breast and nipple stimulation .Gently massage the breast manually for one hour three times a day. This procedure softens the cervix enhances cervical dilation and even promotes labour (Blair storr.et.al.) (1997).

Purpose:

To assess the effectiveness of intermittent manual breast and nipple stimulation on cervical ripening among primi gravida mother.

METHODS

Participants and Methods: In our prospective interventional study, quantitative approach and quasi-experimental post test only design were adopted. Based on the inclusion and exclusion criteria, non-probability purposive sampling technique was employed for selecting samples. Samples were comprises of primi gravida mother at 38-40 weeks of gestational age admitted in antenatal ward with unfavourable cervix. Of 60 antenatal mothers with unfavorable cervix, the intermittent manual breast and nipple stimulation group included 30 mothers and the Control group had 30 mothers. Inclusion Criteria included antenatal mothers between 38 to 40 weeks of

gestation and those who admitted in antenatal ward with unfavourable cervix. Exclusion criteria involves multi gravid mothers, mother with induction of labour and those who undergone surgery in cervix and breast.

Ethical consideration: Formal approval was obtained from the Institutional review board and Institutional ethical committee of SRM University, Kattankulathur, Chennai, Tamilnadu, India. In addition, the participants were informed of their right to withdraw anytime during the course of the study.

***Instruments*:** Questionnaires comprises two sections. Section A includes demographic data,. Section B comprises modified bishop score as an assessment tool.

***Description of the Intervention*:** Primi mothers of the experimental group were administered intermittent manual breast and nipple stimulation for 10 minutes on each breast alternatively for one hour following half an hour interval three times a day. At the end of third manual breast and nipple stimulation, the post assessment level of cervical ripening by Bishops score was done for the mother of both the experimental and control groups. Control group were received the routine hospital treatment.

***Statistical analysis*:** The information collected from the study participants was scored and tabulated. The data was entered into the master coding sheet and saved in EXCEL. Statistical analysis was conducted with the help of the Statistical Package for Social Sciences (SPSS)-16. Mean, percentage and Standard deviation was used to explain the demographic and Bishop Score was used to examine the effect of Intermittent Manual Breast and Nipple Stimulation on Primi Gravida mothers.

RESULTS

The collected data was analyzed with SPSS Version 11.5.

Table I: Frequency and percentage distribution of demographic variables with respect to primi gravida mothers; N = 30+30

Demographic variables		Experimental Group		Control Group	
		No.	%	No	%
Age	<20	8	26.7	7	23.3
	20-30	21	70.0	22	73.3
	>30	1	3.3	1	3.3
Education	Primary	7	23.3	13	43.3
	Secondary	14	46.6	12	40.0
	HSS	5	16.7	4	13.3
	Graduate	4	13.3	1	3.3
Occupation	Skilled	6	20.0	5	16.7
	Un skilled	24	80.0	25	83.3
Residence	Rural	19	63.3	21	70.0
	Urban	11	36.7	9	30.0
Religion	Hindu	22	73.4	24	80.0
	Christian	5	16.7	6	20.0
	Muslim	3	10.0	0	0
Type of family	Joint	12	40.0	13	43.3
	Nuclear	18	60.0	14	46.6
	Extended	0	0	3	10.0
Any previous breast massage classes	Yes	0	0	0	0
	No	30	100	30	100
Nipple assessment	Normal	27	90.0	26	86.7
	Inverted	0	0	3	10.0

Table II: Comparison of cervical ripening after intermittent manual breast and nipple stimulation in experimental group and without intermittent manual breast and nipple stimulation control group; N = 30.

Group	Post test		
	Mean	SD	Un paired t test
Experimental	8.70	1.09	t = 10.20
Control	4.83	1.76	P = 0.001 Significant

Table III: Frequency and percentage distribution on cervical ripening after intermitent manual breast and nipple stimulation with their demographic variables in control group; N = 30

Demographic variables		Unfavorable		Favorable		Chi square test
		No.	%	No	%	
Residence	Rural	14	60.9	7	100	$X^2 = 3.91$
	Urban	9	39.1	0	0	P = 0.05 **Significant**

CONCLUSION

The cervical ripening is a great deal of value for the cervical dilatation. Intermittent manual breast and nipple stimulation can improve cervical ripening of primi gravida mothers with unfavourable cervix and helps to prevent prolonged pregnancy and labour. The ultimate goal of this study is to promote the cervical ripening by intermittent manual breast and nipple stimulation. From the study findings it is concluded that intermittent manual breast and nipple stimulation was effective in promoting the cervical ripening. The result of the study after intermittent manual breast and nipple stimulation analysis depicted that regarding experimental group none of the mothers were unfavourable cervix and all 30 (100%) mothers had favourable cervix. Considering the control group 23 (76.7%) mothers had unfavourable cervix and 7 (23.3%) mother had favourable cervix.

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