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"A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF AMBULATION DURING ACTIVE PHASE OF FIRST STAGE OF LABOR ON RATE OF CERVICAL DILATATION AMONG PRIMIGRAVIDA WOMEN ADMITTED IN LABOR WARD AT SELECTED HOSPITALS OF PATIALA, PUNJAB"

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Abstract: During labor, restricting women movement can result in poorer birth outcomes and may decrease women's satisfaction with their birth experience walking or freedom of movement is important during childbirth. The fact indicates that walking makes it impossible to respond to pain in an active way and it can speed up the labor process. **OBJECTIVES** 1. To assess the rate of cervical dilatation during active phase of first stage of labor among primigravida women (control group) 2. To implement ambulation protocol during active phase of first stage of labor among primigravida women (experimental group) 3.To assess the rate of cervical dilatation during active phase of first stage of labor among primigravida women (experimental group) 4. To compare the rate of cervical dilatation during active phase of first stage of labor among the experimental and control group. **METHODOLOGY** The research design adopted for this study was a Quasi- experimental one group control and one group experimental group and the research approach was an quantitative approach. This study was conducted in labor ward at selected hospitals, Patiala, Punjab. The sample size was 60 women, 30 women of experimental group admitted in labor ward of Mata Kaushalya Hospital, Patiala, Punjab and 30 women of control group admitted in Rajindra Hospital**,** Patiala, Punjab**.** Data was collected using WHO modified partograph**. RESULT** The findings showed that ambulation was effective for enhancing rate of cervical dilatation during active phase of first stage of labor among Primigravida women in experimental group as compared to control group.

KEY WORDS- Evaluate; Effectiveness, ambulation , rate of cervical diltation; primigravida women, active phase of first stage of labor

I. INTRODUCTION

Women has to come across a very complex lifestyle, from maturation to mensuration, from pregnancy to childbirth, menopause and much more physiological changes till death. Pregnancy brings a drastic change in women's life as she experience a great pleasure of a new life growing inside her body which is about to come[1]. Labor is defined as the onset of rhythmic contractions and the relaxation of the

uterine smooth muscle, which results in effacement or progressive thinning of the cervix and diltation or widening of the cervix[2]. The duration of labor is approximately 12-14 hours in primigravida women and 6-8 hours in multigravida women[3]. Ambulation during the active phase of first stage of labor results in shorter duration of the first stage of labor and fewer cesarean birth in the ambulation[4]. Ambulation during labor have a number of physiological benefits including the effect of gravity and increased pelvic dimensions, which may help the baby to come down and decreases the need for instrumental deliveries[1]. Benefits of ambulation can reduce the pain associated with contractions and other discomforts of labor, shorten labor, better fetal positioning, improved psychological well-being. Some studies have shown that ambulation during labor does not harm the mother or fetus[5]. Partograph is usually a pre-printed paper form on which labor observations are recorded.

II. NEED OF THE STUDY

Ambulation during labor reduces patient's discomfort and improve outcome. Ambulation movement and change of position during the active phase of first stage of labor may shorten the labor. Walking and upright position in the first stage of the labor reduce the duration of labor, the risk of cesarean birth and the need for epidural analgesia and have no adverse effects on the mother and the baby[6]. The upright positions and walking can assist in optimal fetal positioning, improved or promotes better blood flow to the uterus, placenta and fetus and ambulation can stimulate contractions, leading to efficient dilation and effacement of the cervix. Today many primigravida mothers experience prolonged labor, fetal distress, severe pain and increased number of instrumental deliveries. These complications not only pose significant risks to the mother and fetus but also contribute to increased health care costs and emotional trauma. This experience left a lasting impression, highlighting the need for evidence – based interventions that can improve labor outcomes for Primigravida mothers.

III. OBJECTIVE OF THE STUDY

1. To assess the rate of cervical dilatation during active phase of first stage of labor among primigravida women [control group] admitted in labor ward at Rajindra Hospital, Patiala, Punjab.
2. To implement ambulation protocol during active phase of first stage of labor among primirgavida women [experimental group] in labor ward at Mata Kaushalya Hospital, Patiala, Punjab.
3. To assess the rate of cervical dilatation during active phase of first stage of labor among primigravida women admitted in labor ward at Mata Kaushalya Hospital, Patiala, Punjab.
4. To compare the rate of cervical dilatation during active phase of first stage of labor among the experimental and control group at selected hospitals of Patiala, Punjab.

IV. HYPOTHESIS

H0: There will be no significant difference in rate of cervical dilatation during active phase of first stage of labor between control group and Experimental group.

H1: There will be significant difference in rate of cervical dilatation during active phase of first stage of labor between Control group and Experimental group

V. RESEARCH APPROACH In view of the nature of the problem selected for the study and the objectives to be accomplished, an **QUANTITATIVE** research approach was used for the present study.

VI. RESEARCH DESIGN For the present study **QUASI EXPERIMENTAL** "one control group one experimental group" was adopted.

VII. POPULATION Population of present study comprises of all early Primigravida women admitted in selected Hospital of Patiala.

VIII. SAMPLE AND SAMPLE SIZE. The sample size was 60 women, 30 women of experimental group admitted in labor ward of Mata Kaushalya Hospital, Patiala, Punjab and 30 women of control group admitted in Rajindra Hospital**,** Patiala, Punjab**.**

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IX. SAMPLING TECHNIQUE In this study, non-probability purposive sampling technique is used for selecting the samples

X. CRITERIA FOR SAMPLE SELECTION

Inclusive criteria:- 1 Primigravida women admitted in selected hospital. 2. Patient who are willing to participate in this study. 3 Patients who are present at the time of data collection**.**

Exclusive criteria:- 1. Patients who are going for C-section. 2. Patients who are not willing to participate in the study. 3 Patients who are having any type of complication for which ambulation is contraindicated

XI. DESCRIPTION OF THE TOOL

AMBULATION PROTOCOL: Ambulation protocol was implemented every hourly for 20 minutes. In this study the tool consist of two parts. Tool consists of two parts. 1) Part –1: DEMOGRAPHIC PROFILE 2) Part – 2: THE OBSERVATIONAL CHECKLIST BASED ON WHO MODIFIED PARTGRAPH

PART 1: DEMOGRAPHIC DATA: This part consists of structured questionnaire to collect the demographic data such as age, educational level, family income, type of family, residence, age at marriage and conception and occupation.

PART 2: THE OBSERVATIONAL CHECKLIST BASED ON WHO MODIFIED PARTOGRAPH is used to note the rate of cervical dilatation of the primigravida women in selected hospitals.

XIII. DATA ANALYSIS & INTERPRETATION

The present study was designed to assess the effectiveness of ambulation on rate of cervical dilatation among Primigravida women admitted in selected hospitals of Patiala. The collected data were coded, tabulated, organized, analysed and interpreted using descriptive and inferential statistics. The data has been analysed and interpreted in the light of objectives and hypothesis of the study. Organizations of findings The data collected from the samples were organized, analysed and presented under the following headings:

Section I: Description of sample characteristics

Section II: Comparison of effectiveness of ambulation on rate of cervical dilatation during active phase of first stage of labor among primigravida mother in group 1 and group 2 [OBSERVATION 1].

Section III: Comparison of effectiveness of ambulation on rate of cervical dilatation during active phase of first stage of labor among primigravida mother in group 1 and group 2 [OBSERVATION 2].

Section IV: Comparison of effectiveness of ambulation on rate of cervical dilatation during active phase of first stage of labor among primigravida mother in group 1 and group 2 [OBSERVATION 3].

Each observation was taken after a duration of 4 hours.

Section II: Comparison of effectiveness of ambulation on rate of cervical dilatation during active phase of first stage of labor among primigravida mother in group 1 and group 2 [OBSERVATION 1]. first observation was taken after a 15 minutes ambulation followed by 45 minutes rest

Rate of cervial dilatation	**Experimental group**		**Control group**		**Chi Square Test**	**Significant Or non-Significant**
	N = 30	**%**	**N = 30**	**%**		
<1cm 1cm >1cm	- 3 27	- 10% 90%	4 23 3	13.3% 76% 10%	X2 = 43.51 Df = 2 P= <0.0001	Significant

During 1st observation the rate of cervical dilatation during active phase of first stage of labor was assessed after 15 minutes of ambulation and 45 minutes of rest. The ambulation during active phase of first stage of labor showed significant effect after the first observation.

Section III: Comparison of effectiveness of ambulation on rate of cervical dilatation during active phase of first stage of labor among primigravida mother in group 1 and group 2 [OBSERVATION 2]. Second observation was taken after four hours of first observation

RATE OF CERVIAL DILATATION	EXPERIMENTAL GROUP		CONTROL GROUP		CHI SQUARE TEST	SIGNIFICANT OR NON-SIGNIFICANT
	n = 30	%	n = 30	%		
<1cm 1cm >1cm	- 1 29	- 3.3% 96.6%	3 22 5	10% 73.3% 16.6%	X2 = 43.18 df = 2 p= 0.0108	Significant

During 2nd observation the rate of cervical dilatation during active phase of first stage of labor was assessed after 15 minutes of ambulation and 45 minutes of rest for 4 hours. The ambulation during active phase of first stage of labor showed significant effect after the second observation.

Section IV: Comparison of effectiveness of ambulation on rate of cervical dilatation during active phase of first stage of labor among primigravida mother in group 1 and group 2 [OBSERVATION 3]. Third observation was taken after four hours of second observation

RATE OF CERVIAL DILATATION	EXPERIMENTAL GROUP		CONTROL GROUP		CHI SQUARE TEST	SIGNIFICANT OR NON-SIGNIFICANT
	n = 30	%	n = 30	%		
<1cm 1cm >1cm	- 1 23	- 3.3% 76.6%	- 2 6 2	- 86.6% 6.6%	X2 = 43.31 df = 1 p= 0.0001	Significant

During 3rd observation the rate of cervical dilatation during active phase of first stage of labor was assessed. The ambulation during active phase of first stage of labor showed significant effect after the third observation.

RECOMMENDATION:

- Hospital policy can be modified to allow and support ambulation during labor.
- This study can be replicated on large scale.
- Health care providers can be educated and trained to ambulation protocol
- Further research studies can be conducted to explore the effect of ambulation in different population and settings

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