



“A Comparative Study To Assess The Effectiveness Of Ambulation Versus Semi Fowlers Position On Maternal Outcome Among Primiparous Mothers At Selected Hospital’

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Abstract

A study to assess the effectiveness of ambulation versus semi fowlers position on maternal outcome among primiparous mothers at selected hospital at Dewas district. The research design used for this study was quasi experimental post test only design. The research approach used for the study was quantitative research approach which was conducted in Amaltas hospital, Dewas district. Conceptual frame work adopted in the present study was Widenbach's helping art of nursing theory. Rapport was established with the primiparous mothers and brief introduction about the study. After getting the consent, the intervention had been given to both group I and group II. The group I primiparous mothers were encouraged to walk for 20 minutes with a period of 10 minutes rest in left lateral position and continue this for 6 times till full cervical dilatation. The group II primiparous mothers were encouraged to be in semi sitting position (head end elevated to 30°-45° angle) for 20 minutes with a period of 10 minutes rest in left lateral position till full cervical dilatation and continue this for 6 times. Maternal outcome was assessed using modified WHO Partograph. In group I shows that there is no significant association between the intensity of uterine contraction with the selected demographic variables like age, religion, education, occupation, type of family, duration of marital life, residence type of marriage, gestational age of mother, rupture of membrane and there is significant

association between the intensity of uterine contraction with the demographic variables food pattern. In group II shows that there is no significant association between the duration of labor with the selected demographic variables like age, religion, education, occupation, type of family, duration of marital life, residence, type of marriage, food pattern, gestational age of mother, rupture of membrane. In group II shows that there is no significant association between the intensity of uterine contraction with the selected demographic variables like age, religion, education, occupation, type of family, duration of marital life, residence, type of marriage, food pattern, gestational age of mother, rupture of membrane. The present study was to assess the effectiveness of ambulation versus semi fowler's position on maternal outcome among primi para mothers. The study findings showed that there was a significant difference in the maternal outcome after intervention (ambulation versus semi fowler's position) In ambulation the average duration of labor was 9 hours 9 minute , the intensity of uterine contractions had 89.4 seconds. In semi fowler's position the average duration of labor was 12 hours 53 minutes, intensity of uterine contraction 51.5 seconds. It concluded when compared with semi fowler's position ambulation was effective in improving the maternal outcome.

Keyword: Fowler's, SD, Position

INTRODUCTION

Pregnancy is a special event and child birth is one of the marvelous memorable segments in woman's life. The foundation for the whole humankind is the art of motherhood. The labor and birth process is an exciting situation to the woman and her family. Child birth is a complex, multidimensional experience for the parturient. Childbirth is a divine process and women should be supported during labor. The time of labor and birth is short in comparison with the length of pregnancy, is the most dramatic and significant period of pregnancy for the expectant women.

Pregnancy and birth are tremendously powerful stages of development that bring a woman to motherhood, a couple, to family and a beautiful child into the world. Labour process may be viewed as a test of womanhood, a test of personal competence, a peak of experience, and the first act of motherhood. Labour process starts with the onset of regular uterine activity associated with effacement and dilatation of the cervix

and descent of the presenting part through the cervix.

Labor is a physiological event involving a sequential, integrated set of changes within the myometrium, decidua, and cervix that occur gradually. Biochemical and connective tissue changes in the uterine cervix appear to precede uterine contractions, cervical dilation, cervical effacement, descent of the fetal head and rupture of the membrane that are uncomfortable and painful for the women. These discomforts can be minimized using various birthing positions. Because midwives have an important role in helping women. The laboring women find upright positions (sitting, standing, walking, kneeling, squatting, hand-knee) are most comfortable and help labor to progress smoothly. So the nurse investigator felt the need to utilize the ambulation and semi fowlers position during I stage of labor especially to primi mothers who have less knowledge regarding these birth positions and experience more difficult during labor and also to compare the effectiveness of these positions in enhancing the labor outcome. to find and choose comfortable positions to pace the labor, outcome, neonatal outcome, mobility, birthing, parturition.

The birthing process for many women is a complex period of time that involves many changes in the mother's body as well as the baby's preparation to enter the world. Medical advances and technology have improved care for at-risk women but the increased number of unnecessary interventions during labor currently may actually hinder a healthy mother from having the best possible birth experience and outcomes for her and her child. Mothers can use many different, non-medical, non-pharmacological strategies to cope with the stress of labor.

NEED FOR THE STUDY

Labour is a process of childbirth during which there is expulsion of the product of conception per vagina. Labour process may be viewed as a test of womanhood, a test of personal competence, a peak of experience, and the first act of motherhood. Labour process starts with the onset of regular uterine activity associated with effacement and dilatation of the cervix and descent of the presenting part through the cervix.

The position that the mother chooses for labour and birth are important. They will help the mother be more comfortable during labour process. Some of the positions they choose will also help them to speed the process of labour. Many of these positions can be done with or without the help of wife, husband, or nurse. Practicing them prior to labour will also make them seem familiar and more comfortable and natural.

A study was conducted to assess the effectiveness of ambulation in which 200 mothers were randomly assigned to one of the two groups first group (100 parturient) authorized to ambulate and second group (100 parturient) confined to bed in dorsal or lateral recumbent. The result of the study showed that the ambulation reduces (for about 34%) the duration of 1st stages of labour.

So the investigator being a nurse interested in non pharmacological measures. Being a nurse, the researcher perceived the importance of the walking on reduction of labour duration. By considering the

recommendation given by the various experts in the field of research on duration of labour, the student researcher felt that it will be relevant to provide guidelines on walking and semi fowlers position to reduce the duration of labour among primi mothers in selected hospital at Dewas district

STATEMENT OF THE PROBLEM

“A comparative study to assess the effectiveness of ambulation versus semi fowlers position on maternal outcome among primi para mothers at selected hospital at Dewas district”.

OBJECTIVES

- To assess the effectiveness of ambulation on maternal outcome among primi mothers
- To assess the effectiveness of semi fowler position on maternal outcome among primi mothers
- To compare the effectiveness of ambulation vs semi fowler position on maternal outcome among primi mother

HYPOTHESIS

H₁: There will be a significant difference between mean scores of maternal outcome among primi para mothers of group I and group II.

H₂: There will be a significant association between maternal outcome on primipara mothers with their selected demographic variables in group I and group II.

ASSUMPTIONS

- Primi mothers may have prolonged duration of labour.
- Walking may reduce the duration of labour among primi mothers.
- Ambulation and semi fowler's position are found to have no side effect when compared with other pharmacological treatment.

Delimitations

The study is delimited to

- Primipara mothers with age group of 20 – 35 years
- Data collection period is 1 month.

RESEARCH METHODOLOGY

RESEARCH APPROACH

In this study, quantitative research approach was adopted.

RESEARCH DESIGN

In this study, Quasi experimental post test only design was adopted

The diagrammatic representation of this design is as follows,

GROUP	INTERVENTION	POST TEST
GROUP – I	X ₁	O ₁
GROUP – II	X ₂	O ₂

X₁, X₂ -Represent administering the intervention ambulation and semi fowlers position

O₁ - Represent the maternal outcome of primi para mothers after ambulation

O₂ - Represent the maternal outcome of primi para mothers after semi fowlers position

VARIABLES

- **Dependent variable:** Maternal outcome
- **Independent variable:** Ambulation and Semi fowler's position

SETTING OF THE STUDY

The study was conducted in the labor ward at Amaltas hospital , Dewas district.

POPULATION TARGET POPULATION

In the present study, target population comprised of Primi para mothers.

ACCESSIBLE POPULATION

In the present study, accessible population comprised of primi para mothers with the age group of 20 -35 years at selected hospital at Dewas district.

SAMPLE

In this study, the sample consists of primi para mothers who fulfilled the inclusion criteria.

SAMPLE SIZE

In this study, the sample comprised of 60 Primi para mothers who are between the age group of 20- 35 years, in which 30 were in group -I and 30 were in group-II.

SAMPLING TECHNIQUE

In this study, purposive sampling technique was used to select the samples

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

The study includes:

- Primi para mothers who are between the age group of 20- 35 years.
- Primi para mothers who are willing to participate in the study.
- Primi para mothers who can understand Hindi or English.

Exclusion criteria

The study excludes:

- Primi para mothers with any systemic illness & obstetrical complications.
- Primi para mothers who were categorized under high risk pregnancy.

ORGANIZATION OF DATA

N A: Frequency and percentage distribution of demographic variables of Primi para mothers in both group I and group II.

N B: Assessment of Maternal outcome among primi para mothers in group I and group II.

N C: Effectiveness of group I versus group II on Maternal outcome among primi para mothers

N D: Association between selected demographic variables with Maternal outcome among primi para mothers in group I and group II

SECTION A:
DESCRIPTION OF DEMOGRAPHIC VARIABLES OF PRIMI PARA MOTHERS IN GROUP I AND GROUP II.

Table 4.1: Frequency and percentage distribution of demographic variables of Primipara mothers in group I and group II.

N=60

S.NO	DEMOGRAPHIC VARIABLES	GROUP - I		GROUP - II	
		F	%	f	%
1	Age				
	20 -25 years	14	46.67	18	60
	26 -30 years	13	43.33	10	33.33
2	31 -35 years	3	10	2	6.67
	Religion				
	a) Hindu	16	53.33	19	63.33
	b) Christian	12	40	11	36.67
	Muslim	2	6.67	0	0
3	Others	0	0	0	0
	Education				
	a) Illiterate	1	3.33	2	6.67
	b) School education	12	40	18	60
	Undergraduate	14	46.67	2	6.67
	Post graduate				

		3	10	8	26.67	
4	Occupation					
	Government employee	8	26.67	9	30	
	Private employee	14	46.67	16	53.33	



	Coolie Nil	2 6	6.67 20	1 4	3.33 13.33	
5	Type of family					
	Nuclear	16	53.33	17	56.67	
	Joint	14	46.67	13	43.33	
6	Duration of marital life					
	a) <1 year	10	33.33	16	53.33	
	b) 1- 3 years	14	46.67	7	23.33	
	c) 3-5 years	4	13.33	5	16.67	
	d) >5 years	2	6.67	2	6.67	
7	Residence					
	Rural	17	56.67	18	60	
	Urban	13	43.33	12	40	
8	Type of marriage					
	Arrange marriage	28	93.33	21	70	
	Love marriage	2	6.67	9	30	
9	Food pattern					
	Vegetarian	4	13.33	3	10	
	Non vegetarian	26	86.67	27	90	
10	Gestational age of the mother					
	36 -38 weeks	10	33.33	8	26.67	
	39 -40 weeks	14	46.67	16	53.33	
	41 -42 weeks	6	20	6	20	
11	Rupture of membrane					
	Spontaneous	24	80	16	53.33	
	Artificial	6	20	14	46.67	

SECTION- B

ASSESSMENT OF MATERNAL
IN GROUP I AND GROUP II.

OUTCOME AMONG PRIMI PARAMOTHERS

Fig:4.2 : Frequency and percentage distribution of maternal outcome among primipara mothers in group I and group II.

N=60

S.NO	MATERNAL OUTCOME	GROUP- I		GROUP -II	
		F	%	f	%
1	Total duration of labor (Hours)				
	6 – 8 hours	8	26.67	3	10
	9 – 12 hours	19	63.33	17	56.67
2	>12 hours	3	10	10	33.33
	Intensity of uterine contraction				
	Mild uterine contraction	3	10	11	36.67
	Moderate uterine contraction	18	60	16	53.33
	Severe uterine contraction	9	30	3	10

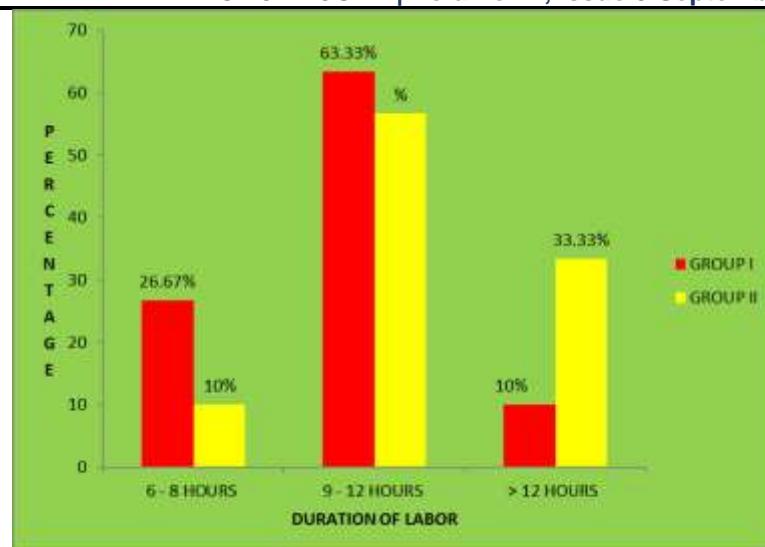


Fig 4.12: Percentage distribution of Primi Para mothers

according to duration of labor in Group I and Group II



Fig 4.13: Percentage distribution of primi para mothers according to the level of uterine contraction in group I and group II.

SECTION- C

EFFECTIVENESS OF AMBULATION VERSUS SEMI FOWLER'S POSITION ON PRIMI PARA MOTHERS IN GROUP I AND GROUP II

Table 4.3: Comparison of post test level of maternal outcome duration of labor, intensity of uterine contraction between group I and group II

N = 60

S.No.	Maternal Outcome	Group I n = 30		Group II n = 30		Mean Difference	paired "t" test
		Mean	SD	Mean	SD		
1	Duration of labor Total duration (Hours)	9.09	1.79	12.53	2.48	3.44	11.09 *
2	Intensity of uterine contraction (sec)	89.4	19.38	51.5	16.20	37.9	3.85 *

*Significant at p<0.05 level

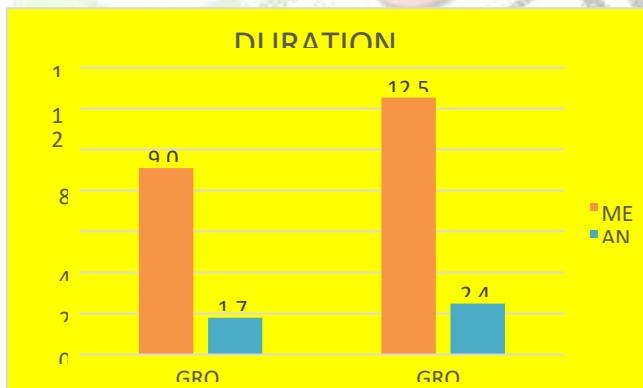


Fig 4.14: Mean , SD on Primi para mothers according to duration of labor in group I and group II.

SECTION- D

ASSOCIATION BETWEEN SELECTED DEMOGRAPHIC VARIABLES WITH MATERNAL OUTCOME AMONG PRIMI PARA MOTHERS IN GROUP I AND GROUP II.

Fig 4.4: Association between the maternal outcome among primi para mothers in group I with their selected demographic variables.

N=60

S.NO	DEMOGRAPHIC VARIABLES	RATION OF LABOR			UTERINE CONTRACTION			χ^2
		6-8 HOURS	9-12 HOURS	>12 HOURS	MILD	MODERATE	SEVERE	
1	Age							
2	Religion							
3	Education							

	d) Post graduate	2	1	0		0	2	1	
4	Occupation								
	a) Government employee	3	4	1		2	2	4	
	b) Private employee	2	11	1	6 df	1	11	2	6 df
	c) Coolie	1	1	0	3.26	0	1	1	7.74
	d) Nil	2	3	1	#	0	4	2	#
5	Type of family								
	Nuclear	4	11	1	2 df	2	8	6	2 df
	Joint	4	8	2	0.67	1	10	3	1.43
					#				#
6	Duration of marital life								
	<1 year	3	7	0		0	6	4	
	1- 3 years	3	9	2	6 df	2	9	3	6 df
	3-5 years	1	2	1	3.19	1	2	1	3.48
	>5 years	1	1	0	#	0	1	1	#
7	Residence								
	a) Rural	5	10	2	2 df	2	9	6	2 df
	b) Urban	3	9	1	0.36	1	9	3	0.81
					#				#
8	Type of marriage								
	a) Arrange marriage	7	18	3	2 df	3	16	9	2 df
	Love marriage	1	1	0	8.46	0	2	0	43#
					*				

9	Food pattern	2 6	1 18	1 2	2 df 02#	2 1	2 16	0 9	2 df 8.85 *
10	Gestational age of the mother	4 2 2	6 12 1	0 0 3	4 df 16.75 *	1 2 0	5 8 5	4 4 1	4 df 28#
11	Rupture of membrane	7 1	16 3	1 2	2 df 57#	2 1	14 4	8 1	2 df 83#

#NS-Non significant

* S- Significant

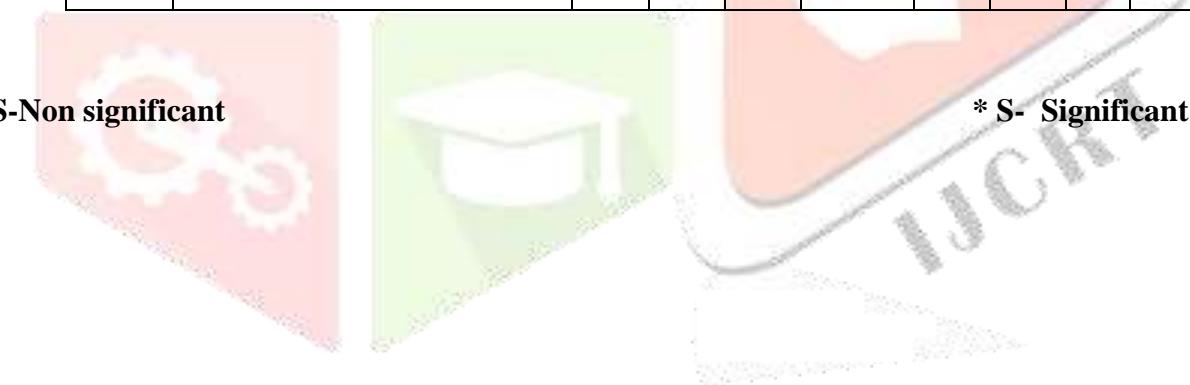


Fig 4.5: Association between the maternal outcome among primi para mothers ingroup II with their selected demographic variables.

N=60

S.NO	EMOGRAPHICVARIABLES	RATION OF LABOR				UTERINE CONTRACTION			
		6-8 HOURS	9-12 HOURS	>12 HOURS	χ^2	MILD	MODERATE	SEVERE	χ^2
1	Age								
	20 -25 years	2	11	5		6	10	2	
	26 -30 years	5	4	1	4df	4	5	1	4 df
	31 -35 years	1	1		0.85	1	1	0	0.45
		0			#				#
2	Religion								
	a) Hindu	2	11	6		9	8	2	
	b) Christian	1	6	4	6 df	2	8	1	6 df
	c) Muslim	0	0	0	0.07	0	0	0	2.86
	d) Others	0	0	0	#	0	0	0	#
3	Education								
	a) Illiterate	0	2	0	6 df	1	1	0	
	b) School education	1	11	6	7.06	5	12	1	6 df
	c) Undergraduate	1	1	0	#	1	0	1	5.87
	d) Post graduate	1	3	4		3	4	1	#

4	Occupation	1	5	3		3	5	1	6 df
		2	8	6	6 df	7	8	1	
		0	1	0	1.80	0	1	0	
		Coolie							
		Nil	0	3	1	#	1	2	
5	Type of family	2	9	6	2 df	8	7	2	2 df
		1	8	4	0.26	3	9	1	2.36
					#				#
6	Duration of marital life	1	9	6		6	9	1	
		<1 year	1	9					
		1- 3 years	0	5	2	6 df	2	4	1 df
		3-5 years	1	2	2	6.02	1	3	1 1.64
		>5 years	1	1	0	#	1	1	#
7	Residence	2	10	5	2 df	7	8	2	2 df
		1	7	5	0.33	4	8	1	0.62
					#				#
8	Type of marriage	2	12	7	2 df	9	9	3	2df
		a)	Arrange	7	0.02	9	9	3	3.45
		marriage	1	5	#	2	7	0	#
	Love marriage								

9	Food pattern	1	2	0	2 df	2	1	0	2 df	
10	Gestational age of the mother	2	15	10	2.98	9	15	3	1.40	#
11	Rupture of membrane	1	2	5	4 df	4	4	0	4 df	
11	Spontaneous	1	12	3	#	4	10	2	3.15	#
11	Artificial	1	3	2	3	2	1	#	2.03	#

CONCLUSION

The present study was to assess the effectiveness of ambulation versus semi fowler's position on maternal outcome among Primi para mothers. The study findings showed that there was a significant difference in the maternal outcome after intervention (ambulation versus semi fowler's position)In ambulation the average duration of labor was 9 hours 9 minutes ,the intensity of uterine contractions had 89.4 seconds .In semi fowler's position the average duration of labor was 12 hours 53 minutes hours, intensity of uterine contraction 51.5 seconds .It concluded when compared with semi fowler's position ambulation was effective in improving the maternal outcome. Hence the ambulation protocol can be utilized during first stage of labor by the nursing professionals in their clinical practice to promote the maternal outcome and improve the quality of life which also evidenced by various other research studies .

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