



A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF ACUPRESSURE ON LABOR PAIN DURING THE FIRST STAGE OF LABOUR AMONG EXPECTANT MOTHERS .

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ABSTRACT **BACKGROUND:** Women face a physiological and psychological struggle during labor. When labor approaches, it may be a time of contrasting feelings, with anxiety and anticipation coexisting with optimism and pleasure.

AIM: To assess the effectiveness of acupressure on Labor pain during the first stage of Labor among expectant mothers among experimental and control group.

MATERIALS AND METHODS: The researcher adopted the evaluative research approach. Quasi experimental research design was used by the investigator. The accessible population for the study was mothers during first stage of labor admitted in Medical College Jabalpur M.P. selected through purposive sampling technique.

RESULTS: The majority of participants in the study sample had a mild level of pain, 44 percent had extreme pain, and 4 percent had very severe pain, according to the pretest score anger of pain level. The majority of participants in the control group have a moderate level of pain, 32% have an extreme level of pain, and 12% have slight pain.

CONCLUSION: The findings of this study indicate that non-pharmacologic interventions such as acupressure are successful in promoting relaxing and enhancing forces, allowing women to face the demands of labor. Acupressure is also an accurate, convenient, non-invasive, and cost-effective procedure that can be used in labor without causing harm to the mother or the baby, according to this report.

KEYWORDS : Labor pain, Acupressure, Expectant Mother

INTRODUCTION

Labor pain has been described as one of the most severe sources of pain that a person can feel (Melzack 1984). According to research, pain relief choices for women in childbirth have improved significantly in the last decade, with a transition from regional anesthesia, in which the patient is a passive participant during labor and delivery, to a collaborative approach, in which the woman is an active participant during labor and birth (Poole JH., 2003). Transcutaneous Electrical Nerve Stimulation, application of heat or ice, acupressure, acupuncture, aromatherapy, breathing technique, music, and visualization are some of the non-pharmacologic techniques for controlling labor pain (Lowdermilk DL, 2001).

A large number of individuals in the United States enroll in acupuncture training programs and go on to serve as nurses. As a result, we actively advise conventional nurses to learn bodywork therapies like acupressure and shiatsu and integrate them into their practice for pain relief, augmenting the benefits of pain medicine, and promoting comfort and breathing. (Ramnero A, Hanson U, 2002). Acupressure has been suggested as a unique approach to the issue of having affordable, reliable, and healthy birthing instruments for the natural birthing process. It is a non-invasive procedure that requires only a pair of hands and a desire to listen to the woman's input (Debra B. 2002).

During her clinical practice, the investigator found that a significant number of mothers in delivery rooms were experiencing extreme labor pain and were not providing any assistance for their comfort and pain control. Another aspect that inspired the author to perform this research to determine the efficacy of acupressure during the first stage of childbirth was witnessing difficult conditions such as extended labor, pain relief with analgesics, which often involved additional medication such as intravenous tube, more intrusive observation, and resuscitation of neonates under analgesic impact. Another factor that inspired the researcher to perform this analysis was the urge to see how successful acupressure is during the first stages of labor in expectant mothers.

AIMS OF THE STUDY:

1. To assess the degree of labor pain before implementing acupressure, in experimental and control group.
2. To assess the effect of acupressure on labor pain in experimental group.
3. To find the difference of labor pain score between experimental and control group.
4. To determine the association between effectiveness of acupressure and selected demographic variables.

SETTING AND DESIGN:

- a. The present study was conducted in labor room of Medical College Hospital Jabalpur M.P.
- b. A Quasi experimental design using time series non-equivalent control group design was adopted for the present study.

INCLUSION CRITERIA:

- Expectant mothers-
1. With 37-40 weeks of gestation in 1st stage of labor
 2. With 4-7 cm. of cervical dilation.
 3. Who are willing to participate.
 4. Who have no associated medical or obstetrical complications.

EXCLUSION CRITERIA-

- Expectant mothers –
1. With any complication associated with pregnancy.
 2. With preterm labor.
 3. With medical complication
 4. Who are undergoing elective cesarean section.
 5. With rupture of membrane.

DESCRIPTION OF TOOL

Structured interview schedule was constructed by the investigator which is as follow-

PART: I SOCIO DEMOGRAPHIC DATA

Consisting of things requesting background information on expectant mothers admitted to the delivery room during the first stage of labor, such as age, educational level, religion, support system, and obstetrical results, such as gravidity, parity, and cervix dilatation.

PART: II ASSESSMENT OF PAIN LEVEL

It is done by using standard simple descriptive pain assessment scale in which criteria were:

- | | |
|------------|---------------------|
| 0 - | No pain |
| 0.1 - 2 - | Mild pain |
| 2.1 - 4 - | Moderate pain |
| 4.1 - 6 - | Severe pain |
| 6.1 - 8 - | Very severe pain |
| 8.1 - 10 - | Worst possible pain |

The highest the score the more the expectant mothers perceive labor pain.

RESULTS AND DISCUSSION:

Table -1 Distribution of subjects according to socio-demographic variable using frequency and percentage in two groups.

Socio demographic variables.	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
Age				
18-22	8	32%	11	44%
23-27	10	40%	12	48%
28-32	7	28%	2	8%
Above 32 years	-	-	-	-
Education				
Illiterate	1	4%	3	12%
Primary education	7	28%	6	24%
Secondary education	12	48%	9	36%
Higher education	5	20%	7	28%
Religion				
Hindu	19	76%	17	68%
Christian	3	12%	6	24%
Muslim	3	12%	2	8%
Others	-	-	-	-
Support system				
Husband & family members	25	100%	25	100%
Friends	-	-	-	-
Neighbours	-	-	-	-
All	-	-	-	-
Gravida				
Primi gravida	18	72%	18	72%
Multi gravida	7	28%	7	28%
Parity				
Primipara	18	72%	18	72%
Multipara	7	28%	7	28%
Cervical dilatation				
4-5 cm.	24	96%	22	88%
6-7 cm.	1	4%	3	12%

The age of expectant mothers was measured and tabulated in table 1 based on socio-demographic variables. The majority of expectant mothers in group – 1 (experimental group) belongs to the age group of 23-28 years, while the majority of expectant mothers in group II (control group) belongs to the age group of 23-28 years. Shows that in the study sample, maximum 48 percent of expectant mothers have completed secondary education, while in the control group, maximum 36 percent have completed secondary education and 28 percent have completed higher education. The majority of expectant mothers in both the experimental and control groups is Hindu, with 76 percent and 64 percent, respectively. In all the experimental and control groups, 100 percent of the support system was made up of husbands and family friends. In the experimental population, 72% of the women are primigravida and 28% are multigravida. In the monitoring group, 72 percent of primigravida and 28 percent of control group members are primigravida. 96 percent of the study population has a cervical dilation of 4-5 cm, while only 4% has a cervical dilation of 6-7 cm. In control group 88% belongs to 4-5 cm cervical dilation, 12% belongs to 6-7 cm cervical dilation.

Table no. – 2 A. Distribution of the pretest and post test score of the subjects on pain level in experimental & control group

N= 50

Score range	Pretest score				Post test score			
	Experimental group		Control group		Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
No pain	0	0	0	0	0	0	0	0
Mild	0	0	3	12	14	56	0	0
Moderate	13	52	14	56	9	36	10	40
Severe	11	44	8	32	2	8	8	32
Very severe	1	4	0	0	0	0	7	28
Worst	0	0	0	0	0	0	0	0
Total	25	100	25	100	25	100	25	100

Table 2 — In the study sample, 52 percent of participants had mild pain, 44 percent had extreme pain, and 4 percent had extremely severe pain, as

seen in the pretest. Sixty-six percent of the participants in the test group have moderate pain, 32 percent have extreme pain, and 12 percent have minor pain. In the post-test, the score spectrum of pain in the study population revealed that 56 percent of the participants had mild pain, 36 percent had moderate pain, and 8% had extreme pain. The majority of participants in the test sample had a mild level of pain, 32% had a medium level of pain, and 28% had a very severe level of pain.

Table -3 Difference between experimental and control group in reduction of labor pain after acupressure

N=50

Group	Mean	Mean difference	S.D.	'Z' value	LOS
Experimental group	23.0625		0.961		
					Significant *
		42.3346		15.662	
Control group	65.3971		1.617		

Table-3. The experimental group's mean and standard deviation are (23.0625, 0.961), while the control group's mean and standard deviation are (65.3971, 1.617), and the measured Z value is 15.662, which is greater than the table value of 2.02 at (P 0.05). It demonstrates that the outcome is important. This shows that acupressure can help relieve discomfort during the first stages of labour.

Table-4 A. Chi square analysis for the association between df- e degrees of labor pain with selected demographic variables in experimental group

N=50

Study variable	"Critical value"	Chi — square value	Degree of freedom	P value	Inference
Age	12.59	8.21	6	0.05	Not significant
18-22					
23-27					
28-32					
Above 32 years					
Educational status	16.92	2.47	9	0.05	Not significant
Illiterate					
Primary education					
Secondary education					
Higher education					
Religion	12.59	1.61	6	0.05	Not significant
Hindu					
Christian					
Muslim					
Others					
Support system	0.576	0	0	0.05	Not significant
Husband & family members					
Friends					
Neighbors					
All					
Gravida	11.07	0.46	5	0.05	Not significant
Primi gravida					
Multi gravida					
Parity	11.07	0.46	5	0.05	Not significant
Primi para					
Multi para					
Cervical dilatation	7.82	9.02	3	0.05	Significant
4-5 cm					
6-7 cm					

Table 4 reveals that there is significant association between labor pain and cervical dilation ($X^2 = 9.02$, $df = 3$ at $p < 0.05$). There is no significant association between other variables like age, religion, education status, support system.

To sum up we can say that-

1. In pretest Pain level in experimental group showed that 52% of subjects were found to have moderate level of pain, 44% were with severe pain and 4% were with very severe pain. In control group 56% of subjects belong to moderate level of pain, 32% were with severe level of pain, 12% with mild pain.
2. In post test Pain level in experimental group showed that majority of subjects 56% were found to have mild level of pain, 36% were with moderate level of pain and 8% were with severe pain. In control group majority of subjects 40% belongs to moderate level of pain, 32% were with severe level of pain, 28% with very severe level of pain.
3. The mean and standard deviation of experimental group is (23.0625, 0.961) and in control group mean and standard deviation is (65.3971, 1.617) and Z value is 15.662 which is highly significant this reveals that acupressure is effective in reducing pain level during first stage of labor.

LIMITATION:

1. A limited amount of time was available for the data collection.
2. It was not possible to get mothers having-pregnancy -induced-hypertension within the limited time, in a randomized fashion.
3. The study was confined to a small sample selected by the purposive sampling technique which restricts, the generalization.
4. No attempt was made to do follow up.

CONCLUSION:

Nurses are expected to take a systematic approach to the treatment they provide. As a result, emphasizing non-pharmacologic approaches of nursing instruction and education is critical and necessary. Students' skills and learning experiences can aid them in implementing a variety of comfort steps in their nursing career. Making these steps accessible to the general public would be extremely beneficial.

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