RESEARCH PAPER | Medical Science | Volume : 6 | Issue : 6 | June 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

Effectiveness of Acupressure on Level of Pain and Duration of Labour Among Primigravida Mothers During First Stage of Labour

KEYWORDS: level of pain, duration of labour, primigravida mothers, first stage of labour

ROJLIN TIGGA
M.sc Nursing, Sumandeep Vidyapeeth University, Sumandeep Nursing College, Piparia, Waghodia, Vadodara, INDIA 391760

Mrs. Rita Thapa
Associate professor, Sumandeep Vidyapeeth University Sumandeep Nursing College, Piparia, Waghodia, Vadodara, INDIA 391760

ABSTRACT *Background : labour pain has been reported to be the most severe pain that a woman experiences in her lifetime. For those women who prefer to avoid or minimize the use of medical analgesia, acupressure is a safe, effective, drug-free alternative.*
Objective: To assess the level of pain and duration of labour and to evaluate the effectiveness of acupressure in experimental and control group.
Material and Method: An evaluatory research approach with quasi experimental- Non-equivalent control group post-test design was used. The sampling technique was Non-probability convenience sampling. The participants were primigravida mothers. A total of 60 participants were equally divided to either experimental & control (N=30) group. After SP6 acupressure intervention in experimental group; whereas pre-determined numbers of uterine contractions in control group; subjective pain was measured using VAS rating from 1-10, recorded for each woman three times and scores calculated.
Results: There were significant differences in mean pain score between the experimental and control group " t" test result of VAS-1 (5.52), VAS-2 (20.59*) and VAS-3 (8.60*) which is more than the table value (1.96) and duration of first stage of labour 't' (12.86*) also found to be statistically significant in favor of the acqupressure groups.*
Conclusion : It concluded that acupressure is an effective non-pharmacological method to bring comfort to the women in times of labour agony.

INTRODUCTION

Labour pain is a universal experience which differs from women to women. Labour pain is among the most severe pain human beings experience and compares in its intensity to severe cancer pain or pain from the amputation of a digit. Acupressure is a simple, safe and effective hands-on technique originated in China .Involves the manual stimulation of specific points, known as Acupoints .

NEED FOR THE STUDY

Labour pain does not result from tissue trauma or damage; rather, it is a part of a unique physiological process. The main factors in delivery pain are cervical dilatation and uterine contractions. Severe labour pain leads to the mother's emotional turmoil and disturbs her mental health. It also has several negative effects on maternal and fetal physiological status as well as the delivery progress. Thus, reduction of delivery pain is of great importance for decreasing the negative effects of the physiological processes which occur due to the mother's pain and anxiety and lead to maternal and fetal damages. Acupressure is a natural and holistic approach in bringing on the labour and delivery. It has absolutely no adverse effect on the baby as no pharmaceuticals are being introduced into the body. It's safe for the mother, as well, because it only helps the body to function better.

STATEMENT OF THE STUDY

"A study to assess the effectiveness of acupressure on level of pain and duration of labour among primigravida mothers during first stage of labour in selected hospitals of Vadodara".

OBJECTIVES OF THE STUDY

- To assess the level of pain and duration of labour in experimental group and control group.
- To evaluate the effectiveness of acupressure between experimental and control group.

HYPOTHESIS

H1: There will be significant difference in level of pain and duration of labour in experimental group and control group.

METHODOLOGY

- Research approach : Evaluatory approach
- Research design: Quasi-experimental non- equivalent control group post-test design.
- Variables : independent variables: acupressure Dependent variable: pain and duration of labour, primigravida mothers, first stage of labour.
- Setting: labour room of selected hospital of vadodara.
- Sample size & technique - 60 primigravida mothers, (30 mothers placed in experimental group and 30 in control group) the sampling technique – non probability convenient sampling technique.
- Population - Primigravida mothers who all are in first stage of labour admitted at selected hospital of vadodara, GJ

Criteria For Sample Selection

Inclusion criteria- primigravida mothers :

- Who completed 37weeks of gestation
- Singleton pregnancy
- Who are undergoing normal vaginal delivery
- Who are in the first stage of labour with intact membranes
- Has no neurological disorder
- Cases approved and allowed by gynecologist
- Has no bruises or existing pain at SP6 point

Exclusion criteria- Primigravida mothers,

- High risk cases

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- Who are going for elective LSCS
- Who all have received analgesic for pain reduction

Development of tools
Section- A:- Baseline data includes age, religion, type of family, income of family,

Qualification, duration of marriage, ANC Visit and fear of labour pain.

Section-B:- Universal pain assessment scale to assess the level of pain

Scoring:-
Mild labour pain 1-2

Moderate labour pain 3-6

Severe labour pain 7-8

Worst labour pain 9-10

Section-C :- Partograph -The duration of labour is measured from the participants'

partograph charts: from establishment of regular and rhythmic uterine

contractions to full cervical dilation.

Scoring system (Duration of first stage of labour)

7- 10 hrs 1

10 -13 hrs 2

13-16 hrs 3

Validity of Tool
On the basis of critical literature analysis and panel of experts' recommendation suitable standard tool is adopted to collect data was universal pain scale and partograph.

Reliabity of the tool
In this study standard tool was used for 6 mothers from a nursing home and found suitable.

Pilot Study
In this study after obtaining the administrative approval pilot study was conducted in labour room of Nursing Home, Makrpura and uday clinic at Uma char rasta between 15th july to 30th july. 6 Mothers were selected by non probability convenient sampling technique. The subject for pilot study possessed same characteristics as that of sample for the main study.

DATA COLLECTION
Formal permission obtained, The data process began from 10th August to 25th september 2015. Selected 60 primigravida women, Informed consent obtained, Every day approximately 2-4 samples were taken. SP6 acupoint was anatomically located and during uterine contractions acupressure was given. The first VAS evaluation (VAS-1) in the latent phase. The second VAS-2 in the early active phase of labour. The third VAS-3 was took place at the late active phase of labour. The duration of labour is measured from the participants' partograph charts: from establishment of regular and rhythmic uterine contractions to full cervical dilation.

ANALYSIS AND INTERPRETATION OF DATA

Table no.1 Overall and aspect wise pain score and duration of labour in both experimental and control groups.

ASPECTS	VAS SCORE	EXPERIMENTAL GROUP N %		CONTROL GROUP N %	
Pain score at latent phase (VAS-1)	Mild (1-2)	20	66.7	3	10
	Moderate (3-6)	10	33.3	27	90
	Severe (7-8)	------	-------	--------	-------
Pain score at early active phase (VAS-2)	Mild (1-2)	0	0	0	0
	Moderate (3-6)	30	100	2	6.7
	Severe (7-8)	------	--------	28	93.3
Pain score at late active phase (VAS-3)	Mild (1-2)	0	0	0	0
	Moderate (3-6)	25	83.3	0	0
	Severe (7-8)	3	10	17	56.7
	Worse (9-10)	2	6.7	13	43.3

ASPECTS	SCORE	EXPERIMENTAL GROUP N %		CONTROL GROUP N %	
Duration of labour	7-10 hours	14	46.7	0	0
	10-13 hours	16	53.3	15	50
	13-16 hours	---		15	50

Table No.2 Comparison of pain score between experimental and control group

ASPECTS	EXPERIMENTAL GROUP		CONTROL GROUP		t-test df
	MEAN	SD	MEAN	SD	
Pain score at latent phase (VAS-1)	1.33	0.48	1.90	0.30	5.52* 58
Pain score at early active phase (VAS-2)	2	0.0	2.94	0.25	20.59* 58
Pain score at late active phase (VAS-3)	2.23	0.57	3.42	0.52	8.60* 58

Significant at 5% level
t (0.05)=1.96

Table N o .3 comparison of duration of labour between experimental and control group

ASPECTS	EXPERIMENTAL GROUP SD		CONTROL GROUP MEAN SD		t-test df
Duration of labour	10.2	8.7	15.7	1.0	12.86* 58

Significant at 5% level
t (0.05)=1.96

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RESULTS: There were significant differences in mean pain score between the experimental and control group " t" test result of VAS-1 (5.52*), VAS-2 (20.59*) and VAS-3 (8.60*) which is more than the table value (1.96) and duration of first stage of labour 't' (12.86*) also found to be statistically significant in favor of the acupressure groups. Thus H1 is highly accepted.

LIMITATION: Study is limited to:
1. Sample size limited to 60. 30 experimental group and 30 control group.
2. Period of 6-8 weeks.
3. Selected maternity hospitals
4. The data was collected on selected aspects.

DISCUSSION : Based on the formulated objectives of the study and hypothesis. The study was designed to assess the effectiveness of acupressure on level of pain and duration of labour among primigravida mothers during first stage of labour in selected hospitals of vadodara. The findings of the study have been discussed with reference to the objectives and hypothesis stated in results.

RECOMMADATIONS
The similar study can be conducted on a larger group. This would provide invaluable evidence in the area of practice.

A study can be carried out to assess the knowledge and attitude of nurse midwives on complementary and alternative therapies for labour pain management.

A study can be carried out to assess the effectiveness of other nursing measures such as music therapy, warm water bath, and labour support for effective pain management during labour.

Further study could be carried out to assess the effectiveness of acupressure by adopting random sampling of primi or multigravida women.

Other than SP6 acupoint; Li4, BL67, GB21, can be evaluated for the reduction of labour pain.

Acupressure can be used for relief of primary dysmenorrhea and postmenapausal symptoms relief.

ETHICAL CONSIDERATION: ethical clearance obtained from the ethical committee of Sumandeep Vidyapeeth and willingness obtained from the subject before data collected.

"**CONFLICTS OF INTEREST" AND SOURCE OF FUNDING**: The authors report no conflict of interest and used own budget for this study, no fund had been provided by any of the institutions.

CONCLUSION : It was determined that SP6 acupressure was effective in reducing pain and duration of labour.

ACKNOWLEDGEMENT
First and foremost, to the Almighty Father, for His unceasing love and blessings.

It gives me great pleasure to express my sincere thanks to Co-guide Prof. (Ms.) Sijo Koshy, Head of Department of Obstetric and Gynaecological Nursing, for her vigilant supervision, open nature and valuable suggestions.

I am highly obligated to my Husband, Mr. Dheeraj k. Gautam, parents and friends for their encouragement, support and for simply being there, without which I could not be able to complete this study successfully.

REFERENCES
1. Barragan IM, Gonzales F. Biofeedback for pain during labour (Protocol). Cochrane Database of [online]. 2006 [cited on 2012Aug 24]; Available from: http ://online lib rary.wiley.com
2. Bobak IM, Lowdermilk DL, Perry SE. Ma1ernity nursing.4th ed.St.Louis: Mosby; 1995.
3. Chung UL, Hung LC. Effects of LI4 and BL 67Acupressure on labor pain and uterinecontractions in the first stage of labor. Journal of Nursing Research 2003 Dec; 11(4):251-60
4. Hjelmstedt A, Shenoy ST. Effect of Acupressure to reduce pain during active stage of labour. Acta Obstetricia et Gynecologica Scandinavica November 2010;89(11):1453-1459Nichols FH, HumenickSS. Childbirth education: Practice, Research and Theory. 2nd ed. Philadelphia: W.B.Saunders Company;2000.
5. Kashanian M, Shahali S. Effect of Acupressure on active stage of labour. Journal of Maternal Fetal and Neonatal Medicine 2009;15:1-4.
6. Lee MK, Chang SB, Kang DH. Effect of SP6 Acupressure for decreasing labor pain and shortening the length of delivery time. Journal of Alternative and Complementary Medicine 2004;10(6):959-65.
7. Marion CG. Acupressure to Relieve PregnancyDiscomfort [online]. 2007 Feb [cited on 2012 Aug 24]; Available from:URL::http://www.parentingweekly.com/pregnancy/breathingspace/vol30/pregnancy_health_fitness.asp
8. McKinney ES. Maternal-Child Nursing. 1st ed. Philadelphia: W.B. Saunders Company;2000.
9. Nichols FH, HumenickSS. Childbirth education: Practice, Research and Theory. 2nd ed. Philadelphia: W.B.Saunders Company;2000
10. Salehian T, Safdari Dehcheshmeh FS.Effects of Acupressure at the sanyinjiao point (sp6) on labor pain and delivery time in nulliparous women. Shahrekord University of medical sciencesiournal2011;12(4):8