International Journal of Pharmacy and Biological Sciences
ISSN: 2321-3272 (Print), ISSN: 2230-7605 (Online)
IJPBS | Volume 6 | Issue 2 | APR-JUN | 2016 | 17-22
Research Article – Biological Sciences

A STUDY TO ASSESS THE EFFECTIVENESS OF CIRCULAR HIP MASSAGE ON FIRST STAGE LABOUR PAIN AMONG PRIMI GRAVIDA MOTHERS AT CHROMPET GOVERNMENT GENERAL HOSPITAL

[1*]G.Sangeetha Jagdish and [2]P.Abirami

[1*]Lecturer and [2]Associate Professor, SRM College of Nursing, Chennai.

***Corresponding Author Email: sanvarjag0415@gmail.com**

ABSTRACT

Child birth is a natural biological process and therefore the pain associated with it is also perceived as normal and natural. The nature of the pain experienced during labour depends on the physical and emotional status of the women. The present study aimed to assess the effectiveness of Circular Hip Massage on first stage labour Pain among Primigravida mothers at Chrompet Government General Hospital. For this study a Quasi Experimental Method was used. A sample of 60 primigravida mothers with labour pain was selected by using Non- probability purposive sampling technique. The primi gravida mothers with labour pain at 4-6cm cervical dilatation admitted in labourl ward of Chrompet government general hospital were selected for the study. The findings showed that regarding experimental group 22 (73.3%) are annoying pain and 8 (26.7%) are un comfortable pain. None of the mothers are dreadful pain, horrible pain and agonizing pain. Considering the control group 7 (23.3%) are dreadful pain and 23 (76.7%) are horrible pain. None of the mothers are agonizing pain. It was concluded that Circular Hip Massage to the Primigravida Mothers was effective to cope up the level of labour pain.

KEY WORDS

Circular Hip Massage, first stage labour Pain, primi gravida mother

INTRODUCTION

Pain in labour is nearly universal experience for child bearing women. Pain and its relief for women in labour has been a subject of interest since the dawn of mankind. The labour pain is increasing in labour as it proceeds. Child birth has been associated with pain and throughout history measures had been introduced to help to relieve it. Pain can vary during different times in the same labour and during different birth by the same woman. Massage has the potential benefits such as decreasing the intensity of pain, relieving the muscle spasm, increasing physical activity, promoting general relaxation and reducing anxiety Circular Hip Massage is one of the massage techniques for labour, which is used during the first stage. This massage is good for women experiencing back pain during their labour. Circular Hip Massage is a specifically designed technique in which upward and downward circular strokes are given on either sides of spine in the sacral region with controlled breathing, which helps to relieve the labour pain (Kimbler.L, 2006).

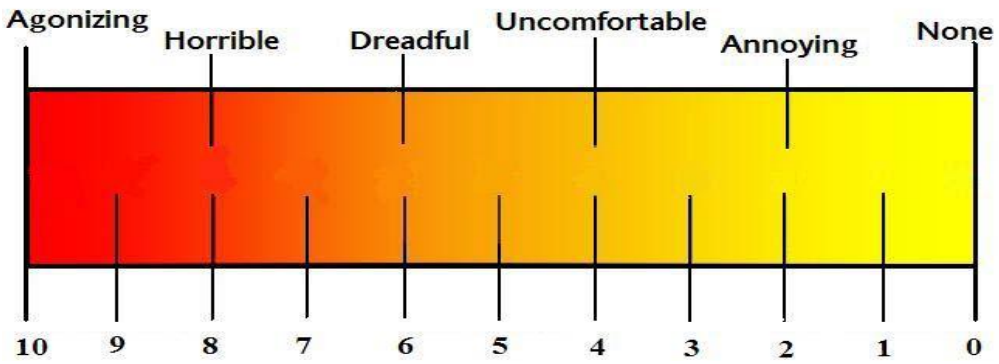
Tzeng Y. L. and Su T.J. (2008) studied on low back pain during labour among 93 low risk women, in which 75.3% of the participants suffered episodes of low back pain during labour. Pain as well as the location of the pain intensified as labour progressed. The type of low back pain in 54.29% of women in labour was muscle soreness and pain, where 45.71% women had continues pain

Kutner J.S., et.,al (2008) reported a randomized trial study on efficacy on massage for decreasing pain and symptom distress among 82 adults with advanced cancer in palliative care centre and Catholic Hospice, Florida. The tools used were Brief Pain Inventory (BPI) and Memorial Symptom Assessment Scale. Among 82 patients, 32 patients were in the massage group, whereas 45 in the control group. Both groups demonstrated immediate improvement in pain (massage: -1.87 point and control: -0.97) and mood

(massage: 1.58 point and control: 0.97 point). Massage was superior for both immediate pain and mood (mean difference: 0.90 and 0.61 points respectively; p <0.001). Massage may have immediately beneficial effect on pain and mood among patients with advanced cancer.

MATERIALS AND METHODS

The study was aimed to assess the effectiveness of circular hip massage among primigravida mothers. A formal permission was obtained from the Chief Medical Officer Chrompet Government General Hospital. The tool consists of two sections. Section –A deals with the demographic variables such as Age, Height, and Weight gained in antenatal period, Religion, Physical strain in job, Community, Family type, Presence of family member in labour, Practice during pregnancy regularly, Knowledge regarding labour pain and Activity during first stage. And section- B consists to assess the effectiveness of Circular Hip Massage on first stage labour pain; Visual analogue pain scale was used by the researcher.



The investigator categorized the pain scale to assess the labour pain as follows, It consists of a scale ranging from '0' – (no pain) to '10'- (agonizing pain). Provision will be made to record the cervical dilatation, fetal heart rate and time of intervention administered. Score **0-** No pain, 1-2 Annoying pain , 2.1 -4 uncomfortable pain , 4.1 -6 Dreadful pain, 6.1 -8 Horrible pain ,8.1 -10 Agonizing pain. The reliability score obtained in this study was r=0.9 which showed high correlation of the score in the inter- rater method. The pilot study was conducted in the labour ward. Ten primigravida mothers were selected by using non probability purposive sampling technique.

A quantitative approach was selected to assess the effectiveness of Circular Hip Massage on first stage labour pain. The research design adopted for the study was quasi experimental time series with multiple reinstitution design. Non probability purposive sampling technique was used for this study.60 primi gravid mothers (30 in study group and 30 in control group) The primi gravida mothers with labour pain at 4-6cm cervical dilatation admitted in labourl ward was selected for data collection

Assessment of level of labour pain before circular hip massage was done by using visual analogue pain scale. Each observation was made for 5 minutes. The primi gravida mothers in the experimental group was administered Circular Hip Massage throughout contraction for 4 subsequent contractions. Assessment of level of labour pain after circular hip massage was done in the experimental group after every contraction and in the control group normal labour care was given. The total time taken for the entire assessment to complete for each primigravida mother was about 40 minutes. Official permission was obtained from the hospital and primi gravid mothers. The ethical guidelines were followed throughout the study. The data collection period was one month.

The data collected from the subjects were compiled and analysed by using descriptive statistics. Paired't' test used to compare the before and after level of labour pain in between Experimental and Control group. Unpaired't' test used to compare the before and after level of labour pain between both the experimental and in control group.Chi- square test

used to associate the labour pain before and after nursing intervention with selected demographic variables.

RESULTS

Frequency and percentage distribution of demographic variables with respect to primi gravida mothers

The analysis of the findings showed that among 60 samples,the majority of the primi gravida mothers 15 (50%) in the experimental group were in the age group of 16 -20 years, and in the control group 15(50%) mothers were in the age group of 16-20 years. Considering the height in the experimental group maximum of 21 (70%) mothers were less than 145cm , and in the control group 22(73.3%) mothers were in between 145-160 cm. Regarding the weight gain of mothers during antenatal period in experimental group 21(70%) were in between 10-14kg and in the control group 23(76.7%) were less than 10kg. Considering the religion both in experimental and control group 17(56.7%) are Hindus. Regarding the physical strain in experimental group 7(23.3%) had severe strain and in the control group 5(16.7%) had severe strain. Considering the community in experimental group 16(60%) were in rural and in control group 18(60%) were in rural. Regarding the type of family both in Experimental and Control group 13(43.3%) are joint family. Considering the presence of family members during labour both in experimental control group 13(43.3%) their mothers accompanied. Regarding the activities during pregnancy in experimental group 16(53.4%) mothers' activities is walking and in the control group 7(23.3%) mothers activity is walking. Considering the antenatal class in experimental group 13(43.3%) mothers attended and in control group only 12 (40%) mother.

Table 1: **Distribution of demographic variables with respect to primi gravida mothers; N =30+30**

Demographic variables		Experimental		Control	
		No.	%	No	%
Age in years	16-20	15	50	15	50.0
	21-25	11	36.7	9	30.0
	26-30	2	6.7	6	20.0
	31-35	2	6.7	0	0
Height of mothers	<145 cm	21	70.0	0	0
	145-160 cm	8	26.7	22	73.3
	>160 cm	1	3.3	8	26.7
Weight gain in antenatal period	<10 kg	0	0	0	0
	10-14 kg	21	70.0	23	76.7
	>14 kg	9	30.0	7	23.3
Religion	Hindu	17	56.7	13	43.3
	Christian	10	33.3	10	33.3
	Muslim	3	10.0	7	23.3
Physical strain in job	Severe	7	23.3	5	16.7
	Moderate	21	70.0	15	50.0
	Mild	2	6.7	10	33.3
Community	Rural	16	53.4	18	60.0

	Urban	14	46.6	14	40.0
Type of family	Joint	13	43.3	12	40.0
	Nuclear	13	43.3	12	40.0
	Extended	4	13.4	6	20.0
Presence of family member during labour	Mother	8	26.7	13	43.3
	Husband	17	56.7	13	43.3
	Others	5	16.7	4	13.4
Activities	Walking	16	53.4	7	23.3
	Antenatal Exercise	7	23.3	12	40.0
	Regular occupation	3	10.0	4	13.4
	House hold job	2	6.7	4	13.4
	None	2	6.7	3	10.0
Antenatal class	Yes	13	43.3	12	40.0
	No	17	56.7	18	60.0
Type of activity	Walking	5	16.7	5	16.7
	Bed rest	16	53.4	16	53.4
	Any other	9	30.0	9	30.0

Table 2: Frequency and percentage distribution of the level of labour pain before Circular Hip Massage in Experimental and Control group; N = 30+30.

Level of Pain	Experimental Group		Control Group	
	Frequency	Percentage	Frequency	Percentage
None	0	0	0	0
Annoying	0	0	0	0
Un comfortable	8	26.7	9	30
Dreadful	19	63.6	21	70
Horrible	3	10	0	0
Agonizing	0	0	0	0

Table 3: Comparison of the Level of Labour Pain Before Circular Hip Massage among Primigravida Mothers between Experimental and Control Group.

Group	Mean	SD	Un paired t test
Experimental	**5.20**	**0.96**	**t = 1.16**
			P = 0.26
Control	**4.97**	**0.77**	**NS**

Table 4: Frequency and percentage distribution of the level of labour pain after Circular Hip Massage in Experimental and Control group; N = 30+30

Level of Pain	Experimental Group		Control Group	
	Frequency	Percentage	Frequency	Percentage
None	0	0	0	0
Annoying	22	73.3	0	0
Un comfortable	8	26.7	0	0
Dreadful	0	0	7	23.3
Horrible	0	0	23	76.7
Agonizing	0	0	0	0

Table 5: **Comparison of the Level Of Labour Pain After Circular Hip Massage among Primigravida Mothers Between Experimental And Control Group; N = 30+30**

Group	Mean	SD	Un paired t test
Experimental	**2.10**	**0.92**	**t = 25.55**
			P = 0.001
Control	**5.38**	**0.53**	**Significant**

Table 6: Comparison of level of labour pain before and after circular hip massage among primigravida mothers in experimental and control group; N = 30+30

Group	Before Circular Hip Massage		After Circular Hip Massage		Paired t test
	Mean	SD	Mean	SD	
Experimental	5.20	0.96	2.10	0.92	t = 27.95 P = 0.001 **Significant**
Control	4.97	0.77	4.9	0.86	t = 0.000 P = 1.000 NS

Table 7: Association of the level of labour pain after Circular Hip Massage with their demographic variables in control group; N=30

Demographic variables		CONTROL GROUP						Chi square test
		Dreadful		Horrible		Agonizing		
		N	%	n	%	N	%	
Height of mothers in cm	<145	0	0	0	0	0	0	$X^2 = 3.64$
	145-160	7	100	15	65.2	0	0	P = 0.05
	>160	0	0	8	34.8	0	0	**Significant**
Type of family	Joint	5	71.4	7	30.4	0	0	$X^2 = 6.24$
	Nuclear	0	0	12	52.2	0	0	P=0.04
	Extended	2	28.6	4	17.4	0	0	**Significant**

DISCUSSION

Analysis on comparison between the before and after Circular Hip Massage in experimental group revealed that the mean value 5.20 with SD 0.96 of before Circular Hip Massage and the mean value of 2.10 with SD 0.92 of after Circular Hip Massage projects 't' value as 27.95 is Statistically significant at P = 0.001 level. As far as control group is concerned the mean value of 4.97 with SD 0.77 of before Circular Hip Massage and the mean value of 4.98 with SD 0.86 of after Circular Hip Massage projects 't' value as 0.000 is Statistically not significant.

The study is supported by a similar study done by Jeyalakshmi.S (2008) that of olive oil massage therapy helps in reducing the labour pain than those who do not received massage therapy.

There is a statistical significant association found between the level of labour pain with demographic variables like height of mothers with x2= 3.64 at p=0.05 level and type of family with x2 = 6.24 at p=0.04.

The study is supported by similar study done by Kimber L. (2006) observed the effects of various massage techniques (circular hip massage, whole back massage, shoulder massage, sacral pressure massage, lower circular back massage, and leg massage) for child birth. The result show there is reduced pain after circular hip massage.

CONCLUSION

The Circular Hip Massage is a cost effective measure to block the pain pathway. Circular hip massage help to conserve the energy of the mother during the first stage of her labour, which helps to put her own effort during the second stage. The ultimate goal of this study is to reduce the labour pain by circular hip massage. From the study findings it is concluded that Circular Hip Massage was effective on first stage labour pain among primigravida mothers. The result of the study after Circular Hip Massage analysis depicted that regarding experimental group 22 (73.3%) had annoying pain and 8 (26.7%) had uncomfortable pain. None of the mothers had dreadful pain, horrible pain and agonizing pain. Considering the control group 7 (23.3%) had dreadful pain and 23 (76.7%) had horrible pain. None of the mothers had agonizing pain.

RECOMMENDATIONS

- Similar study can replicate on a large scale.
- A structured teaching programme can be given to birth companion regarding Circular Hip Massage and its effectiveness can be evaluated.
- A comparative study can be conducted between the primigravida and multipara mothers.

REFERENCES

1. Adele pillitery. (1992). Maternal Child health Nursing care of child & family. (1st edition). J.B. Lippincott company. Philadelphia.
2. Alnigenis M.N.Y., et al (2001), "Massage Therapy in the Management of Fibromyalgia: A Pilot Study", Journal of Musculoskeletal Pain, 9 (2), July, Pp: 55 – 67
3. Dutta D.C. (2004), "Text Book of Obstetrics", 6th Edition, Calcutta, New Central book Agency, Pp: 115 - 117.
4. Jacob A. (2008), "Clinical Nursing Procedures – the Act of Nursing Practice", First Edition, India, Jaypee Brothers Medical Publishers.
5. Tzeng Y.L., et al (2008), "Low back pain during labour and related factors". Journal of Nursing Research, 16 (3): 231-41.
6. Jeyalakshmi .S (2008) "effectiveness of olive oil massage therapy on low back pain "the journal of pain volume 20 (3) 268-273.
7. Kutner J.S., et al (2008), "Massage Therapy to Improve Pain and Moods in Patients with Advanced Cancer", Annals of Internal Medicine, 149 (6). Pp: 1-38.

***Corresponding Author:**
G.Sangeetha Jagdish
Email: sanvarjag0415@gmail.com