



Research Article

EFFECTIVENESS OF HYDROTHERAPY ON PAIN PERCEPTION AND LABOUR OUTCOME AMONG PRIMI PARTURIENT MOTHERS

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ABSTRACT

The heat does not just provide comfort and have a placebo effect. It actually deactivates the pain at a molecular level in which the same way as pharmaceutical pain killer. The present study aim to assess the effectiveness of hydrotherapy on pain perception and labour outcome among 200 primi parturient mothers who fulfilled the inclusion criteria were selected for the study. Visual Analog Scale and partograph was used to assess the pain perception and labour outcome. The warm shower at 37-degree C was showered hourly 15 minutes from 4cm to 8cm cervical dilatation. The overall mean level of pain perception was 3.98 with SD 2.12. The unpaired $t=10.081$ which is statistically significant at $p<0.001$. With regard to duration of labour and the maternal injury, the mean was 9.44 and 0.25 with SD of 1.32 and 0.43 respectively. The t value for duration of labour and maternal injury was $t=7.535$ and $t=7.800$ respectively which is statistically significant at $p<0.001$. Thus hydrotherapy is an evidence based care for reducing the pain perception during labour and improving the labour outcome.

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INTRODUCTION

Labour pain is an acute pain that cannot be compared to any other pain. The midwife play a vital role during labour to promote the maximum physical and emotional wellbeing of the mother. Child birth and delivery are unique event in a women's life. If not dealt well, it can lead to unpleasant experiences and mental agony. An appropriate nursing intervention can change perception of the childbirth experience. Hence, the nurses need to involve actively in application of pain perception strategies to relieve pain during labour.

Need for the Study

Hydrotherapy is a trusted and easily available therapy that has been found effective in reducing the pain perception during childbirth. The uses of Hydrotherapy reduces pain perception during the different stages of labour. It also provides psychological and physical relaxation. The theory behind water birth is that, since the baby has already been in the amniotic fluid sac for nine months, birthing in a similar environment is gentler for the baby and less stressful for the mother. Warm water causes the perineum to become more elastic and relaxed, reducing the incidence of severity of tearing and the need for episiotomy during labour.

Warm water reduces the pain, improve circulation, promote relaxation, reduce muscle tightness and reduce the level of hormones secreted Hydrotherapy for ailments other than the pain of child birth have been employed long before.

JOBSTET (2013) conducted the study to determine the efficacy of warm showers on parturition pain and the birth experiences of women during the first stage of labour. 92 expectant mothers participate in the study. 41 in the control group and 39 in the experimental group, participants in the experimental group received warm shower bath. Each shower lasted 20 minutes at a Temperature of 37 degree Celsius. The control group received standard child birth care. The pain were assessed using VASP. In experimental group, women who participated in warm showers reported significantly lower VASP scores at 4cm and 7cm cervical dilatation and higher birth experience than the control group.

Problem Statement

A study to assess the effectiveness of hydrotherapy on pain perception and selected variables of labour outcome during labour among primi parturient mothers at selected hospital, Chennai.

Objectives of the Study

- To assess the level of pain perception, and selected variables of labour outcome during labour after hydrotherapy among primi parturient mothers in experimental and control group

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- To compare the level of pain perception ,and selected variables of labour outcome of primi parturient mothers between the experimental and control group
- To correlate the level of pain perception with selected variables of labour outcome in experimental and control group
- To associate the level of pain perception, with selected variables of labour outcome of primi parturient mothers with their selected demographic variables.

RESEARCH METHODOLOGY

A Quasi experimental post test only design was adopted. The study was conducted with 200 primi parturient mothers (100 mothers for experimental group, sand 100 mothers for control group) were selected by convenient sampling and written consent from the mothers was obtained for the experimental group, hydrotherapy was given for the mother (warm water 37’c was showered on mothers abdomen by using the shower jug containing 1000ml of water) for hourly15 min from 4cm dilatation till 8cm dilatation. Pain perception was assessed by using visual analogue scale at 8cm dilatation the labour outcome was monitored by using partograph and for the control group the hospital routine care was given and with the same tool pain perception and the labour outcome was monitored.

RESULTS AND DISCUSSION

In the present study the investigator was interested to reduce the pain perception and improve the labour outcome through hydrotherapy. This promotes the release of endorphins and thereby reducing the pain perception. It is proved that the demographic variables are statistically homogeneous.

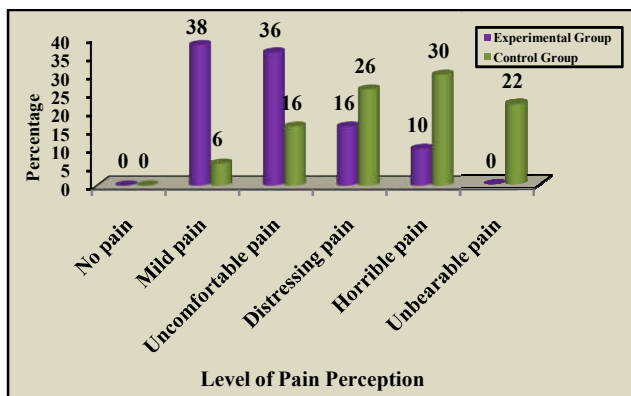


Fig 1 Frequency and percentage distribution of post test level of pain perception and labour outcome among primi parturient mothers

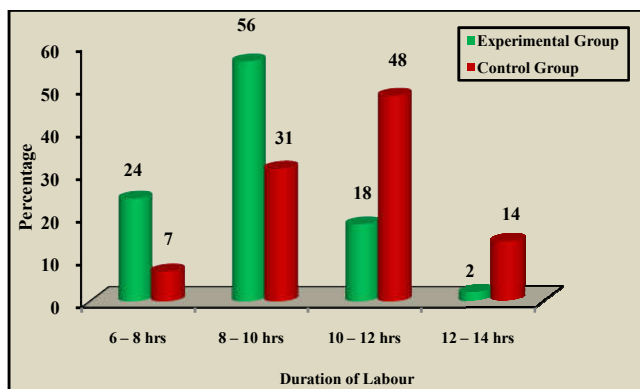


Fig 2 Frequency and percentage distribution of post test level of duration of labour (Labour outcome) during labour among Primi parturient mothers in the experimental and control group.

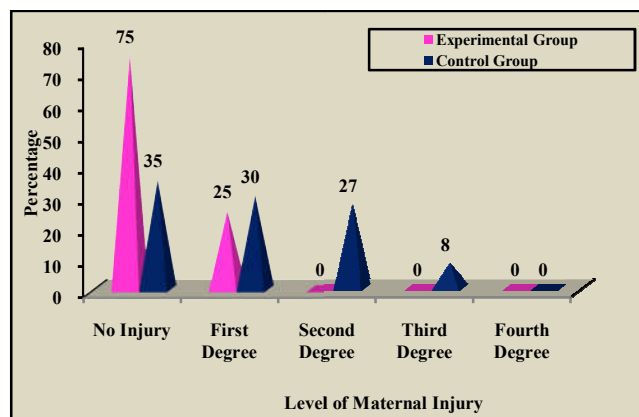


Fig 3 Frequency and percentage distribution of post-test level of maternal injury (Labour outcome) during labour among Primi parturient mothers in the experimental and control group.

Table 1 Comparison of post test level of pain perception score during labour among Primi parturient mothers between the experimental and control group.

Pain Perception	Mean	S.D	Mean Diff.	N = 200	
				Unpaired 't' Value	
Experimental Group n=(100)	3.98	2.12	3.11	t = 10.081	p = 0.0001, S***
Control Groups n=(100)	7.09	2.23			

***p<0.001, S – Significant

Table 2 Comparison of post test duration of labour (Labour outcome) score during labour among Primi parturient mothers between the experimental and control group.

Duration of Labour	Mean	S.D	Mean Diff.	N = 200	
				Unpaired 't' Value	
Experimental Group n=(100)	9.44	1.32	1.50	t = 7.535	p = 0.0001, S***
Control Group n=(100)	10.94	1.48			

***p<0.001, S – Significant

Table 3 Comparison of post test maternal injury (Labour outcome) score during labour among Primi parturient mothers between the experimental and control group.

Maternal Injury	Mean	S.D	Mean Diff.	N = 200	
				Unpaired 't' Value	
Experimental Group n=(100)	0.25	0.43	0.83	t = 7.800	p = 0.0001, S***
Control Group n=(100)	1.08	0.97			

***p<0.001, S – Significant

Table 4 Correlation between post test level of pain perception and labour outcome among Primi parturient mothers in the experimental group.

Variables	Mean	S.D	'r' Value
Pain perception	3.98	2.12	r = 0.344
Maternal Injury	0.25	0.43	p = 0.0001, S***
Pain perception	3.98	2.12	r = -0.098
Duration of labour	9.44	1.32	p = 0.334, N.S

Association of post test Level of pain Perception and labour Outcome Among Primi Parturient Mothers with their Selected Demographic Variables in the Experimental group

In the Experimental group, it was found that there is a significant association with pain and the selected demographic variables- occupation, Habitant. There is also significant

association with Duration of Labour and selected demographic variables-Education, Income. There is also significant association with maternal injury and selected demographic variables-age, type of family.

CONCLUSION

This study concluded that warm shower is cost effective, convenient, easy to deploy, non pharmacological approach to pain reduction. Thus Hydrotherapy during labour helps women to participate fully in birthing process, earn continuous midwife's support, feel cared, comforted and was effective in reducing the pain perception and improved the labour outcome among primi parturient mothers.

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