Research Paper

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A Study to Evaluate the Effectiveness of Selected Intervention in Reducing Level of Pain Perception and Anxiety Among Primi Gravida Mothers.

Medical Science

KEYWORDS : Guided imagery, Pain perception, anxiety, first stage of labour, primi gravida mothers

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ABSTRACT

Aim: To evaluate the effectiveness of guided imagery in terms of level of pain perception and anxiety among primi gravida mothers.

Participants and setting: The study was conducted in Nirmala Hospital, in Suryapet, Telugana, India in with 700 annual births. The primi gravida mothers were recruited and were allocated by non-probability purposive sampling technique into the two arms of the study but only 30 in study and 30 in control group participants.

Intervention: The first observation of pain in 5cm dilatation, given picture of beautiful village to the mother's hand, and ask her to imagine this village for 10minutes and to observe the level of pain. In the second observation of pain in 7cm dilatation, given picture of waterfalls and river to the mother's hand, and ask her to imagine the river for 10minutes and to observe the level of pain and anxiety ask her to imagine the situation for 10minutes and to observe the level of pain and also assess the level of anxiety.

Measurement and findings: In active stage of labour (3-6 cm of cervical dilatation) the women completed the demographic and obstetrical information and pain was measured by 0- 10 Modified combined numerical categorical pain intensity scale and anxiety was measured by Hamilton which is a modified anxiety scale selected for the assessment of the anxiety level This study revealed that there was high significant difference found in pain and anxiety at p<0.001level between study group.

Conclusion: The study concluded that, clinical implementation of guided imagery usage during labour could be an effective non pharmacological intervention in reducing pain perception and anxiety.

INTRODUCTION

Labour is one of the most painful events that a woman is likely to experience, the multidimensional aspect and intensity of which far exceeds disease conditions. For several decades, childbirth educators have focused on the reduction of pain during childbirth. Wide arrays of non-pharmacological pain relief measures, are available to women in labour, among these guided imagery is one of the measure to achieve an effective coping level for labour.

Pain is an unpleasant feeling and emotional experience that is related to real or potential tissue damage or a damage that is defined similarly. Pain is mostly subjective (Merskey, Bogduk 1986). From many points of view, the pain is a common symptom intended for seeking aid (Dickens et al. 2002). International Association for the Study of Pain (IASP) defines the pain as "an unpleasant emotional situation which is originating from a certain area, which is dependant or non-dependant on tissue damage and which is related to the past experience of the person in question" (Merskey, IASP 1986)

Guided imagery is a made-to-order intervention for the unique demands of pregnancy and childbirth. A deliberate kind of directed daydreaming, narrated by a soothing voice over relaxing music, it produces a calm state of focused, energized readiness that reduces discomfort while offering emotional support and a feeling of confidence in the body's inherent wisdom. More than just relaxing, imagery can set the stage for productive, confident labor. It can focus breathing and encourage a powerful alliance with uterine contractions; it can increase a sense of gratitude for the body and the miracle of childbirth; and it can enhance a feeling of connection with the growing baby.

An experimental study was conducted to assess the effect of guided imagery on immediate and prolonged stress responses in women with preterm labour in Sentara General Hospital, North Taiwan. This study used a test and post test design. A sample of 129 women was taken and a randomized sampling technique was adopted. Tools used for this study include Stress Visual Analogue Scale, State Trait Anxiety Inventory, and Perceived Stress Scale. The result showed that, compared with control group, participants in experimental group showed immediate

Improvements in Stress Visual Analogue Scale Scores. This study concluded that guided imagery is effective in reducing stress responses of women with preterm lab

Guided imagery teaches how to use your imagination to reduce stress, relieve pain, anxiety and stimulate healing response in your body. It can be powerful tool in helping persons to lessen their pain and anxiety, take a more active role in their treatment, and regain a feeling of control. Guided imagery is now used in many medical inpatient and outpatient programs throughout the world. Practitioners say that guided imagery works well because stimulating the brain with imagery can have a direct effect on the nervous endocrine system and can ultimately affect the immune system as well. The brain's visual cortex which processes images has a powerful connection with the autonomic nervous system, which controls involuntary activities such as pulse, breathing and physical responses to stress. So the mother will be able use guided imagery to help relax during the stressful moments such as in the labour process.

MATERIALS AND METHODS

This was a randomized interventional study. The study was conducted in Nirmala Hospital, suryapet, Telugana India with 700 annual births. Primi gravida mothers were recruited and were allocated by non probability sampling technique into the two arms of the study. Out of 60 primi gravida mothers, 30 of them

Were allotted to study group and 30 of them to control group participants completed. The inclusion criteria for sample selection includes primi gravida mothers at gestational age 37 to 40 weeks with initial cervical dilation>3cm with single fetes with cephalic presentation and who had normal vitality. Formal approval was obtained from the institutional review board and from the labour room director of the Nirmala hospital suryapet to conduct the present study. The first observation of pain in3cm

dilatation, given picture of beautiful village to the mother's hand, and ask her to imagine this village for 10minutes and to observe the level of pain. In second observation of pain in 5cm dilatation, given picture of single bench in park to the mother's hand, and ask her to imagine the park for 10minutes and to observe the level of pain. In third observation of pain in 7cm dilatation, given picture of waterfalls and river to the mother's hand, and ask her to imagine the river for 10minutes and to observe the level of pain and anxiety ask her to imagine the situation for 10minutes and to observe the level of pain and also assess the level of anxiety. Mean and standard deviation was used

to compute the pre and post assessment level of pain perception among primi gravida mothers in experimental and control group. Paired 't' test is used to assess the effectiveness of music therapy on labour.

The questionnaire for present research study comprises of two sections.

Section I:

It consists of demographic variables of the primi gravida mothers such as age, education, area of residence, type of family and gestational age.

Section II:

Modified combined numerical categorical pain intensity scale, which is a modified pain scale selected for the assessment of the labour pain. The scale is grouped into five categories.

0 - No pain
1 – 3 -Mild pain
4 – 6 -Moderate pain
7 – 9 -Severe pain
10 - Excruciating pain

Section III

Modified Hamilton anxiety scale, which is a modified anxiety scale selected for the assessment of the anxiety level. The scale is grouped into four categories

0-17-Mild 18-2-Moderate 25-3- Severe 30 above-Incapacitating

RESULTS

Table 1: Comparison of pre and post-assessment level of pain perception of mothers receivedguidedimagery N = 30

Session	Experimental Group				't' value
	Pre assessment		Post assessment		
	Mean	S.D	Mean	S.D	
Session I	10.08	0.84	5.6	2.07	21.53*** (S)
Session II	11.83	0.892	5.53	1.819	21.05***(S)

***p<0.001 level, S – Significant

The above table shows that the 't' values in session I and session II were 21.53 and 21.05 which was significant at p<0.001 level respectively. It reveals that the primi gravida mothers' level of pain perception has reduced after guided imagery. There was a significant reduction in the level of pain perception and anxiety among primi gravida mothers after guided imagery.

Table 2: Comparison of pre and post-assessment level of pain perception of the primi gravida mothers in the experimental and control group
N=30

Group	Pre assessment		Post assessment		't' value
	Mean	S.D	Mean	S.D	
Experimental	9.27	0.583	4.93	0.868	22.73*** (S)
Control	9.50	0.509	9.47	0.507	0.228

***p<0.001 level, S – Significant

The above table shows that the obtained' value in the experimental group was 22.73, which was significant at p<0.001 level and the't' value of 0.228 in the control group was not significant at any level.

Table 3: Comparison of pre and post-assessment level of anxiety of mothers received guided imagery
N = 30

Group	Pre assessment		Post assessment		't' value
	Mean	S.D	Mean	S.D	
Experimental	11.45	0.678	18.93	0.868	37.19*** (S)
Control	9.46	0.509	9.47	0.907	0.05

***p<0.001 level, S – Significant

The above table shows that the obtained' value in the experimental group was 37.19, which was significant at p<0.001 level and the't' value of 0.05in the control group was not significant at any level.

Table 4: Comparison of level of pain perception and anxiety of the primi gravida mothers in the experimentalgroup. N=30

Demine	Mean	S.D	't'value
Anxiety	18.93	0.868	62.46
Pain	4.93	0.868	

***p<0.001 level, S – Significant

Table shows the comparison of mean and Standard deviation of anxiety and pain level during the contraction among primi mothers in the experimental group. The't' test is 62.46 was applied to assess the effectiveness of Guided Imagery among the primi mothers in the experimental group in terms of level of anxiety and pain. The result indicated that there was a significant decrease in the level of anxiety and pain among the primi mothers in the experimental group.

DISCUSSION

Pain in labour is a universal experience for child bearing mothers, while therapeutic showering is a frequent and familiar activity and thought to be beneficial for comfort during labour its efficacy was rarely evaluated in clinical studies. The present study found a positive effect of therapeutic showering on the studied women pain and anxiety levels. The effect was significantly marked, when compared with the control group. Data of the present study clearly demonstrate the effectiveness of warm showering in reducing labour pain

With regards to pain perception there was high statistical significance found in study and control group at 0.001 level and the difference mean value was 5.07 score between these groups which shows that usage of warm showers during labour enhances reduced labour pain among the primi graveda mothers. This result was supported by a qualitative study on 'characteristics of a positive experience for mothers.

With regards to effect of warm showers usage on labour outcome shows that study group mothers had lower rate of caesarean and instrumental delivery and effective contraction and decreased duration of labour and reduced the need of analgesics and augmentation of labour than the control group and there was a high significant difference found at p=0.01 and p=0.001 level. These results are supported by a study on influence of maternal mobility on duration of active phase of labour which was done by sheela.R, was that the good performance of maternal mobility has reduces pain perception influences on labour process; it increases tolerance to pain, avoids the use of analgesics

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drugs during labour, and improves the evolution of dilatation and reduces the duration of the active phase.

CONCLUSION

The study concluded that labour process is a physiological phenomenon in which almost all women experiences pain and anxiety. The primi gravida mothers who used the guided imagery as a relaxation technique shows the decreased level of pain perception and anxiety. The primi gravida mothers who had not used the guided imagery showed increased level of pain perception and anxiety.

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