EFFECTIVENESS OF ACUPRESSURE VS ICE MASSAGE OVER MERIDIAN POINT ON LABOUR PAIN IN PRIMI-PARTURIENT WOMEN DURING FIRST STAGE OF LABOUR AT A SELECTED HOSPITAL, SALEM.

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A DISSERTATION SUBMITTED TO

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

(OBSTETRICS AND GYNAECOLOGICAL NURSING)

APRIL – 2011

CERTIFICATE

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ACKNOWLEDGEMENT

Gratitude is not only the memory but also the respect of the heart rendered to the person for her support, guidance and goodness.

I'm very graceful to Almighty God for his abundance of grace, mercy and blessing to successful complete this study.

I wish to express my deep sense of gratitude and thanks to **Dr. K. Arthanari, M.S.,** Managing Trustee, Sri Gokulam College of Nursing, for providing me an opportunity to undertake the course under Sri Gokulam Trust, Salem.

I express my sincere thanks to **Prof. A. Jayasudha, M.Sc (N)., Ph.D.,** Principal**,** Sri Gokulam College of Nursing, Salem , for her guidance, valuable suggestion and kindly support. I consider this as a great honour and privilege to complete the study under her supervision.

I express my sincere gratitude to **Dr. K. Tamizharasi, Ph.D.,** Vice Principal, Sri Gokulam College of Nursing, Salem for her valuable suggestions and guidance.

I express my sincere gratitude to **Dr. Mrs.P.Chellammal, M.D., DGO**, Consultant, Obstetrician and Gynecologist Sri Gokulam Hospital, for validating the tool, constant guidance and valuable suggestions.

I express my heartful thanks to my Co-Guide **Mrs. R.Nalini, M.Sc (N),** Lecturer for her constant encouragement, valuable guidance, supervision and timely help during the entire course of study.

I'm very graceful to **Mrs.K.Amudha, M.Sc(N)**, Associate Professor, **Mrs.R.Sheela Theras, M.Sc(N), Mrs. J.Komathi, M.Sc (N), Mrs. J. Vijyalakshmi, M.Sc(N).,** Lecturers, in Maternity Nursing for their help and support throughout my study.

I express my sincere gratitude to my class Co-ordinator **Mrs.P.Lalitha,M.Sc.(N),** Professor and **Mrs. Devikanna M.Sc.(N),** Lecturer, Sri Gokulam College of Nursing, for their timely help and guidance.

It is the most pleasant time to express my gratitude and exclusive thank to **Dr.V.E.Kalaiselvan, M.D., (Acu),** Acupuncture and touch heal for his innovative, constructive and diligent training in Acupressure to ensure the best quality of the study while helped me to do my study in a wonderful and fruitful manner.

I thank all the Nursing and Non-nursing **Faculty members** of Sri Gokulam College of Nursing for their guidance and encouragement for their busy schedule.

My special thanks to **Experts** for their valuable suggestions and constructive comments.

My sincere thanks to **Mr. S.Sivakumar, M.Sc, M.Phil., (Ph.D.,)** for his assistance in statistical analysis of this study.

I extend my thanks to **Mr. R.Baskar, M.L.I.S., M.Phil.,** Librarian, Sri Gokulam College of Nursing, Salem for extending necessary library facilities throughout the study.

I wish to extend my sincere thanks to **Mr. Murugesan, Sri Krishna Computers**, for his cooperation with me and untiring patients in typing this manuscript.

I express a heartfelt thanks to my **belovable parents, in laws, husband, sister** and **daughter B.S.Akalya** for their valuable support , blessings and prayers.

Last but not least, I express heart felt gratitude and thanks to my friends who encouraged and supported to complete the study.

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ABSTRACT

An evaluative approach with quasi experimental in which time series with multiple institution of treatment design was used to assess the effectiveness of Acupressure vs Ice massage over meridian point on level of labour pain where non probability convenience sampling technique was used to collect data from 60 primi parturient women during first stage of labour at Salem Poly Clinic. Numerical Pain Intensity Scale was used to assess the level of labour pain. The effectiveness of Acupressure and ice massage was evaluated by independent' t' test and the chi-square analysis was done to associate the level of labour pain among primi parturient women with their selected demographic variables.

In experimental group I and II 13(43.3%) and 14(46.6%) primi parturient women were at the age group of 21-25 years, 13(43.3%) and 14(46.67%) of them were undergraduate. In experimental group I and II 15(50%) and 14(46.67%) were home makers. Experimental group-I (Acupressure) mean difference values were 1.30, 0.45 and 0.150, whereas in experimental group-II (Ice massage) value were 1.733, 1.50 and 0.633.So it can be concluded that experimental group-II got less pain reduction than experimental group-I.

In experimental group I and II the calculated 't' value after first intervention was 1.76 which is not significant at $p<0.005$ level, whereas second and third after intervention (O_4 and O_6) 't' value of second and third intervention were 3.66 and 4.44 highly significant difference between the two groups at $p < 0.001$ level. So it can be concluded that ice massage was more effective in reducing the level of labour pain. No association was found between the two groups with their selected demographic variables.

CHAPTER I

INTRODUCTION

When from the wearing ware of life,
I seek release, I look into my baby's face
And there I find peace

- Marth F. Crow

The pleasures of pregnancy and motherhood are many. One of the most amazing aspects of being a female is being able to carry and create life. Despite this a lot of women face the delivery of their baby with mixed emotions. It is only natural that a woman has a level of concern about delivery, particularly when it is their first baby.

Judith, (2010) stated that labour is unique to every women. There is no single best method of labour analgesia. Every method has merits and demerits and, and different women value different things. Just as women need options in where and with whom to give birth, women need to be able to choose which methods of pain control best match with their beliefs, experiences, health status, and stage of labour.

Child birth is one of the most joyous events in women's lives. In an effort to make childbirth a positive experience for women, there is an increasing emphasis on intra partum pain management. However, because of potential side-effects on mothers and fetus, the use of analgesics and anaesthetic agents may not be the first choice for pain management for women in labour. Rather, it is important for nurses to use non pharmacologic pain relieving measures, such as touch, exercise, aromatherapy, and acupressure. **(Wildman, et.al., 2007)**

Labour pain is viewed as a consequence of imbalance between two energy entities. Thus for a woman in labour, her labour experience may depend on how well her physical, psychological and spiritual energies are balanced and harmonized. There has been increasing interest in recent years in the clinical application of acupressure to manage various aspects of the labour. **(Beal, 1998, 1999, Lee, et.al., 2002)**

Need for the Study

World wide every year approximately 211 million woman experience the joy of pregnancy based on WHO report in 2005, whereas in India approximately 30 million woman experience pregnancy annually. **(UNICEF, 2005)**

Labour pain differs from other forms of pain in that no actual trauma or tissue damage occurs. Each woman's labour is unique the amount of pain a woman feels during labour may differ from that by another women. But nearly all women find labour painful to some degree. **(Unknown authour)**

75% of people who have this Labour pain experiences are in their thirties, 50% are in their teens, and 25% are in their twenties, 100% of people who have this experience are women.

Chapman, (2002) describes labour pain as stimuli of receptive neurons arising from contractions of the uterine muscles, which is referred to as a visceral pelvic lumbar-sacral areas.

A total of 81,418 deliveries were included in this study. Of these, 12,659 (15.5%) women had epidural, 33,819 (41.5%) had used opioids and 26,974 (33.1%) received either entonox or no analgesia at all. The women who received epidural analgesia were younger, shorter and heavier and had larger babies (OR = 1.05, 95% CI 1.01, 1.08). Three quarters of them were primigravidae and had longer periods of gestation. They were also more likely to have suffered pregnancy related

complications (OR = 2.11, 95% CI 1.8, 2.4). Labour was more likely to have been induced (OR = 2.8, 95% CI 2.6, 2.9) and to have lasted longer in this group of women. Women in this group were 5 times more likely to have an instrumental delivery (95% CI 4.9, 5.1) and 7 times more likely to have a Caesarean section (95% CI 5.7, 9.3). **(Shoinee Battacharya, 2006)**

Manizheh Pirdel., Leila Pirdel., (2009) a descriptive-comparative study was carried out in Tabriz Alzahra Hospital. Perceived environmental stressors and pain perception during labor among primi parous and multi parous women. In this study, 300 primiparous and multi parous women who were candidates for vaginal delivery, were randomly selected and interviewed. The data were collected by a questionnaire and the intensity of pain was determined by standardized tool. Significant positive correlations were found between pain and tension from environmental factors in primiparous ($r=0.16$, $p<0.01$) and in multiparous ($r=0.22$, $p<0.05$) women. Furthermore, primiparous women believed that a crowded delivery room (70%) and restriction of movement and mobility (67%) contributed to their environmental stresses. Multiparas women believed that noise in the delivery ward (84%) and restrict of fluid intake (78%) increased their stresses. Performance of routine diagnostic tests in hospitalized pregnant woman, provision of invasive medical care during labor process and a noisy and crowded environment all influence the mother's experience and perception of pain. Therefore, the medical staffs seem to play a great role in alleviating labor pain by reducing stressors, especially the objective ones that are more stressful.

Pharmacologic approaches are directed at elimination of the physical sensation of labor pain, whereas non pharmacologic approaches are largely directed toward prevention of suffering. A response rate of 78% was obtained. Only 14% of doctors

considered CAM (Complementary Alternative Medicine) was a threat to public health. Over 90% of midwives and obstetricians thought they should have some knowledge about CAM. A greater proportion of obstetricians (72%) held a view there needs to be an evidence base for CAM compared with 26% of midwives. The majority of obstetricians (68%) and midwives (78%) had formally referred a patient for use of one of the complementary therapies. Over 70% of obstetricians and midwives considered massage, acupuncture, vitamins, yoga, meditation and hypnosis to be useful and safe to use during pregnancy. **(Penny Simkin, 2004)**

. Midwives and Obstetricians are becoming more interested in using complementary therapies to reduce medical induction rates (Tiran, 2006). Acupuncture is complementary rather than adversative to Western Medicine and goes well with midwifery. According to some commentators, acupuncture is ideal for childbirth as it is a drug-free intervention and has no harmful teratogenic effects, and women may be more willing to receive this kind of treatment. **(Ewies and Olah, 2002)**

During the clinical posting in the labour room the investigator observed that many of the primi parturient women felt more pain than multi mothers. In this 21st century the world wide so many complementary and alternative medicines are used. As a non pharmacological treatment acupressure and ice massage are cost effective measures to reduce the level of labour pain perception during first stage of labour. So the investigator felt that there is a need to compare the effectiveness of acupressure and Ice massage on level of labour pain during first stage of labour among primi partiurient women.

Statement of the Problem

A Comparative Study to Assess the Effectiveness of Acupressure Vs Ice Massage Over Meridian Point on Level of Labour Pain in Primi-Parturient Women During First Stage of Labour at a Selected Hospital, Salem.

Objectives

1. To assess the level of labour pain among primi-parturient women in experimental group-I and II.
2. To compare the effectiveness of acupressure vs ice massage over meridian point on level of labour pain among primi-parturient women in experimental group-I and II.
3. To associate the level of labour pain among primi-parturient women with their selected demographic variables in experimental group-I and II.

Operational Definitions

1. Effectiveness:

It is the comparison of statistical significant difference in level of labour pain after acupressure and ice massage over meridian point among primi-parturient women.

2. Acupressure:

It is the pressure given on meridian point of left hand for every two hours interval in 3 minutes duration for six hour..

3. Meridian point:

It is situated between first metacarpal within 3-4mm of skin between the thumb and fore finger.

4. Ice massage:

Massage will be given by intermittent rocking moment over meridian point of the left hand for 3-4 Subsequent contractions and every two hours interval.

5. Level of labour pain:

The score which is obtained by primi-parturient women with the use of Numeric Pain Intensity Scale during first stage of labour.

6. Primi-parturient women:

Women who are in labour for first time from 4 to 8 cm dilatation.

Assumptions

1. Women those who are in labour may experience pain.
2. Labour pain differs with each women.
3. Acupressure and labour has no side effect on women with labour pain.
4. Acupressure and ice massage is a non-invasive procedure.

Hypotheses

H_1: There is a significant difference on level of labour pain among primi-parturient women of experimental group I and II at $p < 0.05$ level.

H_2: There is a significant association between the level of the labour pain among the primi-parturient women of experimental group-I and II and their selected demographic variables at $p< 0.05$ level.

Delimitations

The study was delimited to,

1. 4 weeks of data collection.
2. Assessment of the level of labour pain was limited to active stage of 1st stage of labour.
3. 60 subjects only.

Projected Outcome

This study was conducted to compare the effectiveness of acupressure and ice massage on level of labour pain in primi parturient women. Findings of this study will help the staff nurse to practice in hospital and community. It can be used by the multipurpose healthy worker to reduce level of labour pain at peripheral level.

Conceptual Framework

A conceptual framework can be defined as set of concept and assumptions that integrate them into a meaningful configuration **(Fawcett, 1994).**

Conceptual framework facilitates communication and provides systematic approach to nursing research, educational status, administration and practice.

The conceptual framework selected for this study is Wiedenbach's Helping Art Model for Clinical Practices (1964). It consists of three factors, central purpose, prescription and realities. It describes that the nurse develops a prescription based on a central purpose and implement according to the realities of the situation.

The central purpose of the study was to reduce the level of labour pain. It can be achieved through acupressure (3 minutes) and Ice massage 3–4 subsequent contractions was given to primi parturient women. Five realities identified by Wiedenbach's are agent, recipient, goal, means and framework.

The agent is the practicing nurse who has the personal attributes, capacities, capabilities, commitment and compliance to provide nursing care. The investigator acts as an agent in this study.

Recipient is the one who receives a nursing care. Primiparturient women with active stage of labour pain (60 samples) are the recipients. The goal is the nurse's desired outcome, it directs actions and suggest the reason for taking those action. Reduction in level of labour is the goal for this study.

The means are the activities and devices used by the nurse to achieve the goal, it includes specific skills and procedures. The procedure used for this study is Acupressure and Ice massage.

Validation refers to a collection of evidence that shows a patients need have been met. It shows the direct result of the nurse's action. In this study level of labour pain was assessed 10 minutes before and after intervention with a help of Numerical Pain Intensity Scale.

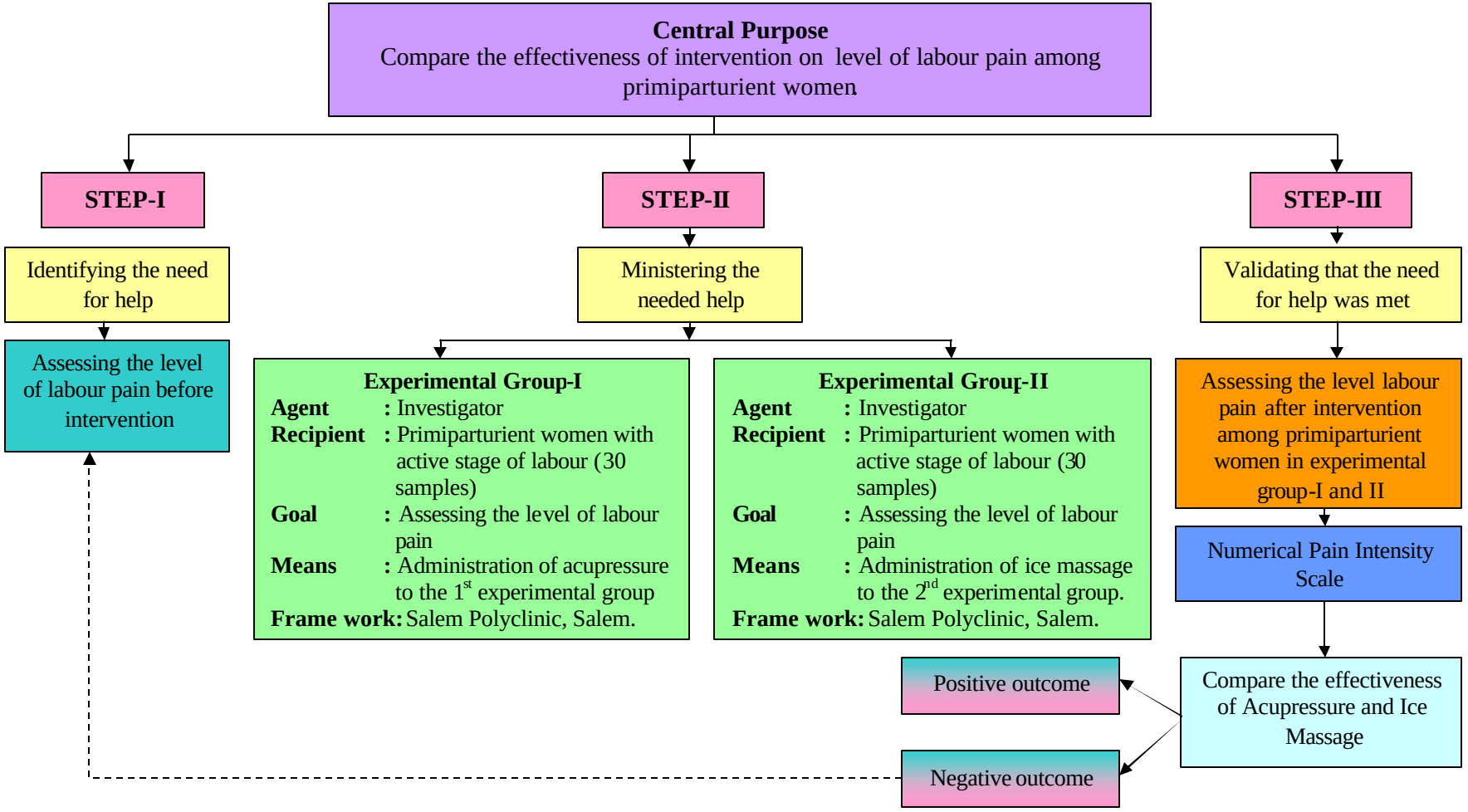


Fig-1.1: Theoretical Framework to Compare the Effectiveness of Acupressure vs Ice Massage Over Meridian Point on Level of Labour Pain among Primi-Parturient Women based on Wiedenbach's Helping Art Model for Clinical Practices (1964)

SUMMARY

In this chapter investigator has discussed about the background of the study, need for the study, statement of the problem, objectives, hypotheses, operational definition, assumption, delimitations, projected outcome and conceptual framework.

CHAPTER II

REVIEW OF LITERATURE

Review of literature provides background for understanding the significance of new study. It equips the investigator to familiar with the existing studies providing basis for future investigation and also helps in the development of methodology.

The present study is organized the following headings,

- Literature related to Labour pain perception
- Literature related to Acupressure as a pain relief measure for labour pain
- Literature related to Ice massage for labour pain reduction.

I. Literature related to Labour Pain Perception

Nekyon. D., et.al., (2008) conducted a study to assess the knowledge, attitude and care of labour pain relief methods in women attending antenatal clinic in Nairobi, reported that 90% indicated that they would intend to have some form of labour pain relief at their next delivery. 18% had been offered some form of pain relief at their last delivery with 82% of those offered having effective pain relief ($p<0.001$). While most of our participants were well educated, level of knowledge of labour analgesia is still low. Use of labour analgesia is quite low in comparison to the western world.

Ibach, et.al., (2007) conducted a qualitative study to analyse knowledge and expectation of labour among primigravidae women in Public Health Sector Qualitative Analysis of data obtained from in depth semistructured interview from 30 black African Xhosa. Speaking primigravida in midwifery obstetric unit, Cape Town. An open ended interview guide was developed. The theme includes previous painful experience, knowledge of labour, expectation and attitude towards labour pain and knowledge of biomedical analgesia. The study concluded that the women were poorly

prepared for the experience of delivery. Antenatal programme should incorporated sensitive education covering the process and pain of labour and the method available to alleviate pain.

A total of 81,418 deliveries were analysed. Of these, 12,659 (15.5%) women had epidural, 33,819 (41.5%) had used opioids and 26,974 (33.1%) received either entonox or no analgesia at all. The women who received epidural analgesia were younger, shorter and heavier and had larger babies (OR = 1.05, 95% CI 1.01, 1.08). Three quarters of them were primigravidae and had longer periods of gestation. They were also more likely to have suffered pregnancy related complications (OR = 2.11, 95% CI 1.8, 2.4). Labour was more likely to have been induced (OR = 2.8, 95% CI 2.6, 2.9) and to have lasted longer in this group of women. Women in this group were 5 times more likely to have an instrumental delivery (95% CI 4.9, 5.1) and 7 times more likely to have a Caesarean section (95% CI 5.7, 9.3). **(Shoinee Battacharya, 2006)**

Abushaikha, et.al., (2005) a descriptive study was conducted on labour pain experience and intensity with 100 the participants who delivered vaginally were recruited from the postnatal ward of a major Hospital in the City of Amman. Three instruments the Numeric Pain Intensity Scale, Pain Assessment Questionnaire and a Demographic Questionnaire were used to assess the labour pain experience and labour pain intensity levels. The majority of parturient did not receive pain relief. Eighty one women reported pain intensity level high during 2nd stage of labour experience, therefore needs of supporter and educator among Maternity Nurses and Midwives in Jordon need to improve considerably.

Olayemi, et.al., (2005) conducted a study on determinants of pain perception during labour. Thousand parturient mothers at University College Hosptial, Ibadan were the sample Box Numerical Scale (BNS) was used to assess the pain level their study findings revealed that the pain scores had significant correlation with age $p<0.01$ parity $p<0.01$ gestational age at delivery $p<0.005$ and educational status $p<0.01$.

Explore use of the women's satisfactions with intrapartum pain management at Royal Hospital for women (RHW), Sydney, Australia from October, 2002 to January 2003 women aged over 16 who had been in labour RHW where given a questionnaire to complete in the 1st post-partum regarding their intrapartum pain management. Supplementary information was obtained from patient records. A total of 496 women participated 69% response rate including 95 birth centre clients. The mean age was 32 years and 73% had normal vaginal delivery. At least our form of pain management was used by 463(93%) women with 74% using two or more methods. Labour pain was worse or much worse than expected for 55%, 72% were very 'quite' satisfied with over all pain management. **(Huntley, et.al., 2004)**

Arbor, (2003) conducted a exploratory study on adolescents experience of child birth. The sample size was 25 adolescent women open ended questionnaire was used to collect the child birth experience. He found out that there was key difference in the relationship between the pain of child birth and responsibility for their child care. The result provided an entry into understanding unique characteristics of birth as adolescent and potential roles health care providers can play to promote positive experience.

Baker, A., Fergusion, SA., Roach, GD., (2001) conducted a study to examine the perception of labouring women and their attendant midwife from the onset of labour to delivery the study revealed that mothers and midwifes pain score were similar at mild-moderate pain levels. But midwives significantly under estimating pain intensity at levels that mothers describe as severe.

Kabeyama and Miyoshi, (2001) started that the intensity of memorized labour pain. The rate of the high group, whose intensity of memorized labour pain was longer than mean +1 SD during three postpartum phases was 24% the rate of the low group, whose intensity of memorized labour pain was smaller than mean+1 SD was 9.7%. In the length of labour was longer than low group. The rate of pregnancy disorder was higher than self control score during and the rate of women with different birth was higher that for those with low birth weight was lower. There were significant difference between the high and low group in all the factors.

Niven, C.A., Murfy-Black. T., (2000) conducted a study to review the literature through an electronic search of medscape, psychlit both information and data services and CINHAL between 1990 and 1999. The study concluded that memories of labour pain can evoke intense positive reaction in a few women but are more likely to give rise to positive consequence related to coping self efficacy and self esteem.

Sylvia, T., Brown., Carol Douglas ., Lee Ann., (2000) conducted a study on evaluation of intrapartum, non pharmacological pain relief methods by women used during labour. The retrospective descriptive survey design examined non pharmacological pain relief technique which labouring women used most often to determine the effectiveness of the chosen techniques of the non pharmacological strategies of pain relief, acupressure and massage were found to be more effective.

II. Acupressure as a Pain Relief Measures for Labour Pain

Mohana., (2008) conducted an experimental study on identify the effect of acupressure in Sri Ramakrishna Maternity Centre in Chennai. She conducted a study to identify the effectiveness of acupressure over the meridian points (SP6). She concluded that experimental group felt reduction of labour pain than the control group.

Mohanlal, and Judie ., (2008) conducted a study to assess the effectiveness of acupressure on labour outcome among the primi-parturient mothers. The analysis to this study revealed that the mothers in the experimental group showed a highly significant decrease in the level of labour pain and duration of labour decreased the SP6 acupressure at $p<0.001$ when compared with the control group. So acupressure can be used as a safer pain reducing method.

Leino, (2007) described the effectiveness of acupressure during the labour process in her article. The acupressure helps the women to control their pain, increase the rate of cervical dilatation and manage the labour pain without fear.

Debra Betts, (2006). SP6 and LI4 were frequently used by Midwives as induction points. Participants were instructed to use acupressure on both points prior to their medical induction. Usually in the time frame of using the point atleast every two hours. The application of these points is reported as beneficial in case where the labour did not commense spontaneously. The resulting induced labour was straight forward and efficient one midwife commended that she could tell those women who had actually followed her instruction, by the way the cervix softened and dilated..

Wong, Perry, Hockenberry, Lowdermilk and Wilson, (2006) explained that acupressure technique can be used in pregnancy, labour and postpartum to relieve pain and other discomforts. Pressure, heat or cold is applied to acupuncture point

termed ‘t’ subos. These points have an increased density of neuro-receptors and increased electrical conductivity. Acupressure is best applied over the stain without using lubricants. Hoku acupressure point (back of the hand where thumb and index finger come together) used to enhance uterine contractions without increasing pain.

Leifee., (2005) stated that acupressure as a massage can be relaxing the body. It may work by triggering the body to release natural pain killing compounds such as endorphin. It can be regarded as a way of comfort to the body and promoting general health and well being. Acupressure is recommended to ease discomfort to pregnancy and child birth.

Leena, Chang, and Kang., (2004) conducted a study on effect of SP6 acupressure on labour pain and length of delivery time in women during labour among 75 parturient. The pressure or touch was given on acupressure point for 30 minutes. Labour pain was measured using structured questionnaire and subjective labour pain scale (VAS). The study concluded that the subjective labour pain score was significantly reduced immediately. After the intervention ($p = 0.021$) and 60 minutes after the intervention ($p = 0.012$) and the total labour time was significantly shorter in the experimental group than the control group.

Mary Ann Liebert, (2004) conducted study in University Hospital. 75 women were selected randomly in that experimental group (acupressure 36) control group 39. Thirty minutes acupressure was given at SP6 point. There were significant difference found between two groups and the total labour time was significantly reduced in SP6 intervention group than in than control group.

YIP YB, et.al., (2004) conducted a study to assess the effect of acupressure point stimulation with electrodes combined with acupressure using an aromatic essential oil as an treatment on pain relief and enhancing the physical functions

activities among adult with sub acute or chronic was specific low back pain. Setting of the study was Community Centre, Old Age Home and Women Worker Association. Eight session relaxation acupressure stimulation done followed by acupressure with lavender oil over a 3 weeks period, the control group received usual care only changes more baseline to the end of treatment were assessed in pain intensity by Visual Analog Scale at one week later the end of treatment the intervention group had 39% greater reduction in pain intensity than the control group ($p = 0.001$). Result shows that it is an effective method for that term low back pain relief. No adverse effect were repeat.

Chung, Hung, Kuo and Huang, (2003) conducted a study on effect of LI4 and BL67 acupressure on labour pain and uterine contraction in the first stage of labour among 127 parturient and the result of the study conformed the effect of LI4 and BL67 acupressure in lessening labour pain during the active phase of first stage of labour.

Kim, et.al., (2002) conducted a study to identify the effects of SP6 acupressure in LI4 acupressure on labour pain in primipara women in Korea. It was concluded that the effects of acupressure with SP6 and LI4 acupressure were effective in reducing to labour pain and duration of delivery time.

Lee, (2001) stated that acupressure is believed to be one of the best and effective methods in reducing the pain. The stimulation of specific points along the meridian limb releases muscle te nsion, increase, circulation and allow energy flow evenly and than the surrounding tissues, leading to speculation that there are indeed some biochemical changes brought on by acupoint stimulation which may result in changes of the body's electro magnetic field.

According to **Garh., (2000)** applying right firm pressure on acupressure points the body release stress, tension, pain and increase the circulation.

III. Ice Massage as Pain Relief Measure

Jamuna Rani, G., (2010) quasi experimental pre-test and post-test with control group design to evaluate the effectiveness of Hoku ice massage 40 mothers was selected. The effectiveness of ice massage calculated between control and experimental group scores on different aspects of certain biophysical parameters. The calculated 't' value higher than the table value. It seems that Hoku ice massage on certain biophysiological parameters was effective among primiparturient mothers.

Saraswathy, (2010) conducted an experimental study at Government Head Quarters Hospital, Kanchipuram. To identify the effect of ice massage over energy meridian point upon first stage of labour. The calculated paired 't' value in experimental group was 21.062 which is significant at $p<0.001$ level. The control group paired 't' value was 8.7. It reveals that ice massage is more effective in labour pain. She concluded that ice massage was effective and safe method for practice.

Anbuselvi.K., (2009) conducted quasi experimental study identify the effectiveness of ice application on pain perception during first stage one group pre-test and post-test nonequivalent control group design was used. The data was collected from 30 primi parturient mothers in KMCH hospital, Coimbatore. The experimental group had reduction of labour pain than the control group. The calculated paired 't' value of experimental group was 6.55 at $p<0.05$ level.

Debra Betts., (2003) said that the application of the ice massage to the shiatsu energy meridian point L14 was non-invasive effective tool to help to reduce the intensity and unpleasantness of pain from early labour contractions. It was more effective on the left hand for most of the women and declared that this can be added to many other tools used by Midwifes, Nurses, Physician.

Water, B L, et.al., (2003) investigated use of ice massage of the acupressure energy meridian point large intensive four (LI4) to reduce labour pain during contractions in USA. A one group pre-test post-test design was choosen, which used 100mm visual analog scale and the McGill pain questionnaire ranked numerically and verbally to measure pain levels the protest secured as the control. Study participants are Hispanic and white medicated recipients who received prenatal care at women's clinic staffed by Certified Nurse Midwifes in USA. Obstetrician participants noted a pain reduction women on the visual analog scale of 28.22mm on the left hand and 11.93mm on right hand. The study results suggest that ice massage in L14 is a safe, non-invasive, non-pharmacological method of reducing pain.

Summary

In this chapter investigator has discussed about literature related to labour pain perception and acupressure as well as ice massage as a labour pain reduction measure.

CHAPTER III

METHODOLOGY

The methodology of research indicates the general pattern of organizing the procedure for gathering valid and reliable dates for the purpose of investigation. **(Polit and Hungler, 2003)**

This chapter consists of research approach, research design, variables, setting, population, samples, sampling technique, development and description of tool, content validity and reliability of tools, pilot study, data collection procedure and plan for data analysis.

Research Approach

Quantitative evaluative research approach was adopted for the study.

Research Design

Research design refers to the researchers overall plan for obtaining answers to the research question and it spells out the strategies that the researchers adopts to develop information that is adequate. **(Polit and Hungler, 2003)**

Quasi experimental in which time series with multiple institution of treatment design selected for this study to compare the effectiveness of acupressure Vs ice massage on level of labour pain among primigravid women.

E_1	$O_1X_1O_2$	$O_3X_1O_4$	$O_5X_1O_6$
E_2	$O_1X_2O_2$	$O_3X_2O_4$	$O_5X_2O_6$

E_1 - Experimental group – I

E_2 - Experimental group – II

X_1 - Acupressure

X_2 - Ice massage

O_1, O_3, O_5 - Pain assessment before intervention

O_2, O_4, O_6 - Pain assessment after intervention

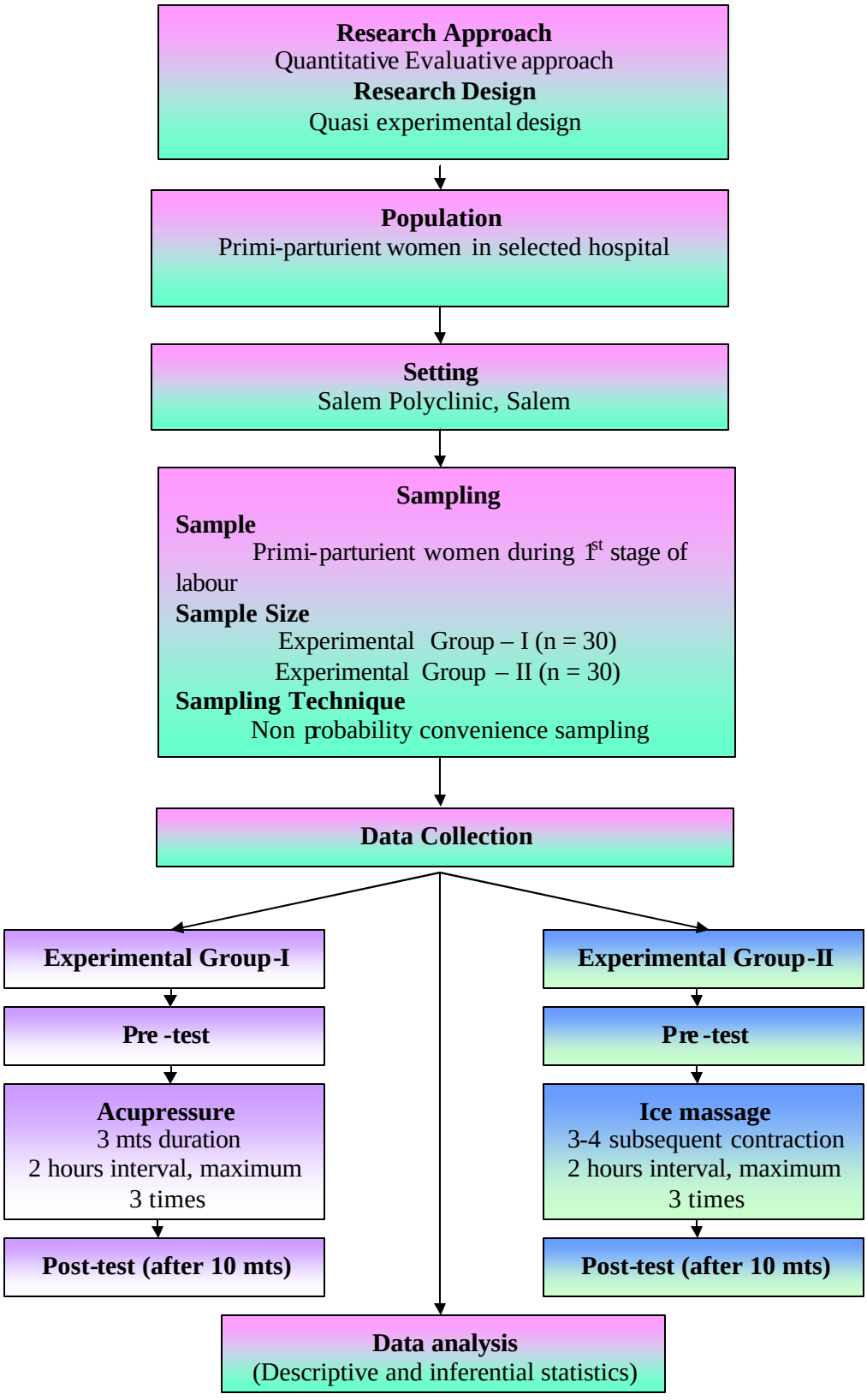


Figure – 3.1: Schematic Representation of Research Methodology

Population

The population under this study included all primigravid women those who were in active stage of labour in a selected private hospital, Salem.

Description of the Setting

Setting is the general location and condition in which the data collection takes places for the study. **(Polit and Hungler, 2003)**

The study was conducted in Salem Polyclinic, Salem. It is located at TVS Bus Stop, Four Roads, Salem. It is 1 km from New Bus stand. Every day 15-22 women are coming for delivery among those 13-15 are primigravid women. The selection for this area was on the basis of,

1. Geographical proximity
2. Availability of subjects
3. Economy of time and money access
4. Feasibility in terms of cooperation extended by the Obstetricians and Gynecologist in Salem Polyclinic, the Health Team Members and the investigator's familiarity with the settings in terms of professional experiences.

Sampling

Sampling refers to the process of selection of population to represents the entire population. **(Polit D.F and Hungler, 2003)**

? Sample

Primi gravid women who are in first stage of labour

? Sample size:

The sample size was 60 primgravid women who met inclusive criteria in a selected private hospital, Salem. Group – I (Acupressure) 30 samples, Group-II (Ice massage) – 30 samples.

? Sampling technique:

The method of sampling employed is non probability sampling and the sampling technique is convenience sampling.

? Criteria for Sample Selection

Inclusion criteria:

Women who are,

- ? between 18 – 35 years of age.
- ? between 38 – 42 weeks of pregnancy.
- ? having contraction occurring atleast every 5-10mts with cervical dilatation.
- ? Singleton pregnancy with cephalic presentation.
- ? Interested to participate in the study.

Exclusion criteria:

Women who are,

- ? under narcotics in the past 6hrs.
- ? underlying medical and high risk pregnancy.
- ? having labour complications.

Variables

Independent variable**:** Acupressure and Ice massage

Dependent variable**:** Level of labour pain

Extraneous variable: Age, educational status, occupation, type of work, weeks of pregnancy.

Description of the Tool

The tool for collection of data for this study consists of two sections. Section-A deals with demographic characteristics such as, age, educational status, occupation, type of work and weeks of pregnancy. Section-B consists of Numerical Pain Intensity Scale by American Pain Society (2000) which was used to assess the level of labour pain among primigravid women.

Scoring procedure :

The pregnant women will place a score 0,1,2,3,4,5,6,7,8,9,10 after the verbalization of women about her level of labour pain

Further the level of labour pain scores were categorized as follows

Table 3.1: Scoring for Numerical Pain Intensity Scale

Score	Level of labour pain
0	No pain
1 – 3	Mild pain
4 – 6	Moderate pain
7 – 9	Severe pain
10	Worst possible pain

Validity and Reliability

Validity:

Validity refers to degree to which an instrument measures what is supposed to be measured.(**Polit, D.F., & Hungler2003**)

Validity of the tool and content was established by consultation with the Guide and Experts. The tools were validated by two Medical Experts in the field of Obstetrics and Gynecology, one Acupressure Specialist, four Nursing Experts, one

Statistician and two Language Experts. The tools were found adequate and minor suggestions given by the experts were incorporated.

Reliability:

The reliability of the tool was done by inter rater method r^1=0.87.

Pilot Study

Pilot study was conducted on 07.06.2010 to 13.06.2010 with 6 primigravid women with active stage of labour in Sri Gokulam Hospital, Salem to assess the feasibility and practicability of the study.

The finalized tool was administered. Tool was feasible and primigravid women easily followed the instruction and cooperated. It also helped to select suitable statistical methods.

Method of Data Collection

Ethical consideration:

Prior to collection of data written permission was obtained from the managing director of Salem Polyclinic, Salem. Informed oral consent was obtained from primi parturient women.

Period of data collection:

The data was collected over a period of four weeks from 05.07.2010 to 13.07.2010

Data collection procedure:

The investigator introduced herself and explains the purpose of the study and its importance to the primi parturient women. The first and second experimental group were selected from Salem Poly Clinic Salem. The investigator assessed the level of labour pain before intervention. First experimental group primi parturient women received acupressure first two weeks

Acupressure was given at the beginning of contractions for 3 minutes duration and two hours interval. After 10 minutes of each intervention the post test was assessed consecutively.

Experimental group II primi parturient women received Ice massage for 3rd and 4h week .It was given over acupressure meridian point and this was given for 3-4 subsequent contractions and two hours interval, after 10 minutes of each interventions the post was assessed consecutively with the help of Numerical Pain Intensity Scale.

Plan for Data Analysis

The data will be collected, analyzed and tabulated mean, standard deviation and independent 't' test will be used to find out the effectiveness of Acupressure and Ice massage. Chi square test will be used to associate the level of labour pain with their selected demographic variables.

Summary

This chapter dealt with methodology it consists of research approach, research design, population, description of setting, variable, sampling, description of the tool, validity and reliability, method of data collection, pilot study, plan for data analysis. The data analysis and interpretation of the study presenting in the following chapter.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

Analysis is a process of organizing and synthesizing data in such a way that research question can be answered and hypothesis tested. **(Polit and Hungler, 2003)**

The term analysis refers to the computation of certain resources along with searching for patterns of relationship that exists among data groups. Analysis of data in a general way involves a number of closely related operations. Which are performed with the purpose of summarizing the collected data, organizing these in such a manner that they answer the research question's. **(Kothari, C.R, 1990)**

This chapter will present the comparative study attempted to evaluate the effectiveness of acupressure and ice massage on level of labour among postnatal mothers in selected hospital, Salem.

Data collected and analysed by following sections,

Section-A: Distribution of primi-parturient women according to their selected demographic characteristics.

Section-B: a .Distribution of primi-parturient women according to their level of labour pain before and after intervention in experimental I and II.

b. Mean, Standard deviation, mean difference of level of pain among primi-parturient women in experimental I and II.

Section-C: Hypotheses testing

a. Comparison of effectiveness of Acupressure Vs Ice massage on level of labour pain among primi-parturient women in experimental group I and II.

b. Association between level of labour pain among primi-parturient women with their selected demographic variables.

Section-A

Distribution of Primi-Parturient Women according to their Selected Demographic Characteristics.

The data collected from the respondents were classified, tabulated and presented in simple percentage analysis as follows,

Table-4.1:

Frequency and percentage distribution of primi-parturient women according to their selected demographic variables.

n=60

S. No	Demographic variables	Experimental group-I (Acupressure) (n=30)		Experimental group-II (Ice massage) (n=30)	
		f	%	f	%
1.	**Age in years**				
	a. < 20	7	23.3	8	26.66
	b. 21 – 25	13	43.3	14	46.67
	c. 26-30	9	30	5	16.6
	d. 31-35	1	3.33	3	9.99
2.	**Educational status**				
	a. Illiterate	1	3.33	-	-
	b. Primary education	2	6.66	1	3.33
	c. Secondary education	3	10	3	10
	d. Higher Secondary education	8	26.6	9	30
	e. Under Graduate	13	43.3	14	46.67
	f. Post Graduate	3	10	3	10
3.	**Occupation**				
	a. Home maker	23	76.7	14	46.67
	b. Private employee	5	16.6	9	30
	c. Govt. employee	2	6.6	5	16.6
	d. Self employee	-	-	2	6.66
4.	**Type of work**				
	a. Mild	10	33.3	20	83.3
	b. Moderate	15	50	5	16.6
	c. Severe	5	16.6	5	16.6
5.	**Weeks of pregnancy**				
	a. 38 weeks	6	19.93	5	16.6
	b. 39 weeks	6	19.93	11	36.6
	c. 40 weeks	12	39.86	6	19.93
	d. 41 weeks	6	19.93	7	23.26
	e. 42 weeks	-	-	1	3.33

The data presented in table - 4.1 shows that in experimental group-I 13(43.3%) primi-parturient women belongs to at the age group of 21-25 years, 13(43.3%) of them were under graduates. 23(76.71%) of them were home makers, 15(50%) of them were moderate workers and 12(39.86%) of them were 40 weeks of pregnancy.

In experimental group-II 14(46.67%) primi-parturient women belongs to at the age group of 21 – 25 years. 14(46.67%) of them were under graduates, 14(46.67%) were home makers. 20(83.3%) of them mild workers and 11(36.6%) of them between 39 weeks of pregnancy.

Section-B

Distribution of Primi-Parturient Women according to their Level of Labour Pain Before and After Acupressure.

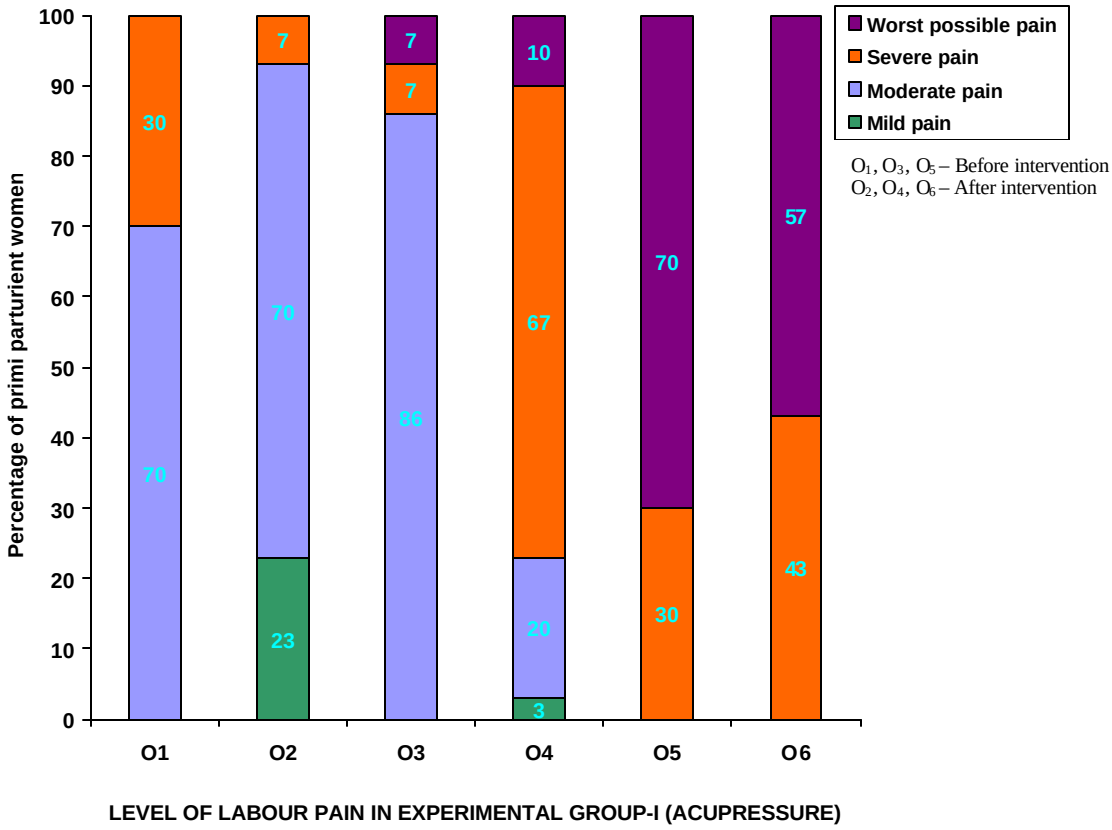


Figure -4.1: Percentage distribution of Primi parturient women according to their level of labour pain before and after Acupressure

The above figure shows that In experimental group-I (Acupressure) the level of labour pain before intervention in (O_1, O_3) and in (O_5) were 21(70%) and 26(86%) had moderate pain, 21(70%) had worst possible pain respectively. The level of labour pain after intervention (O_2, O_4, O_6) 21(70%) had moderate pain, 20(67%) had severe pain, and 17(57%) had worst possible pain respectively. This finding reveals that acupressure given during first stage of labour reduces the level of labour pain among primi parturient women.

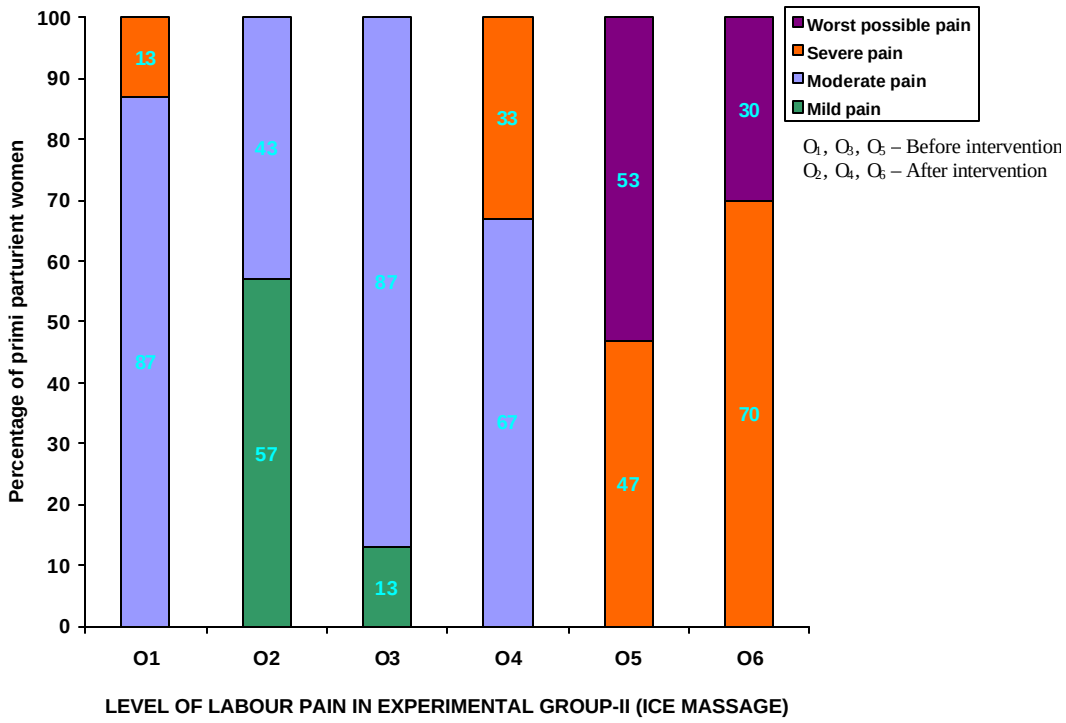
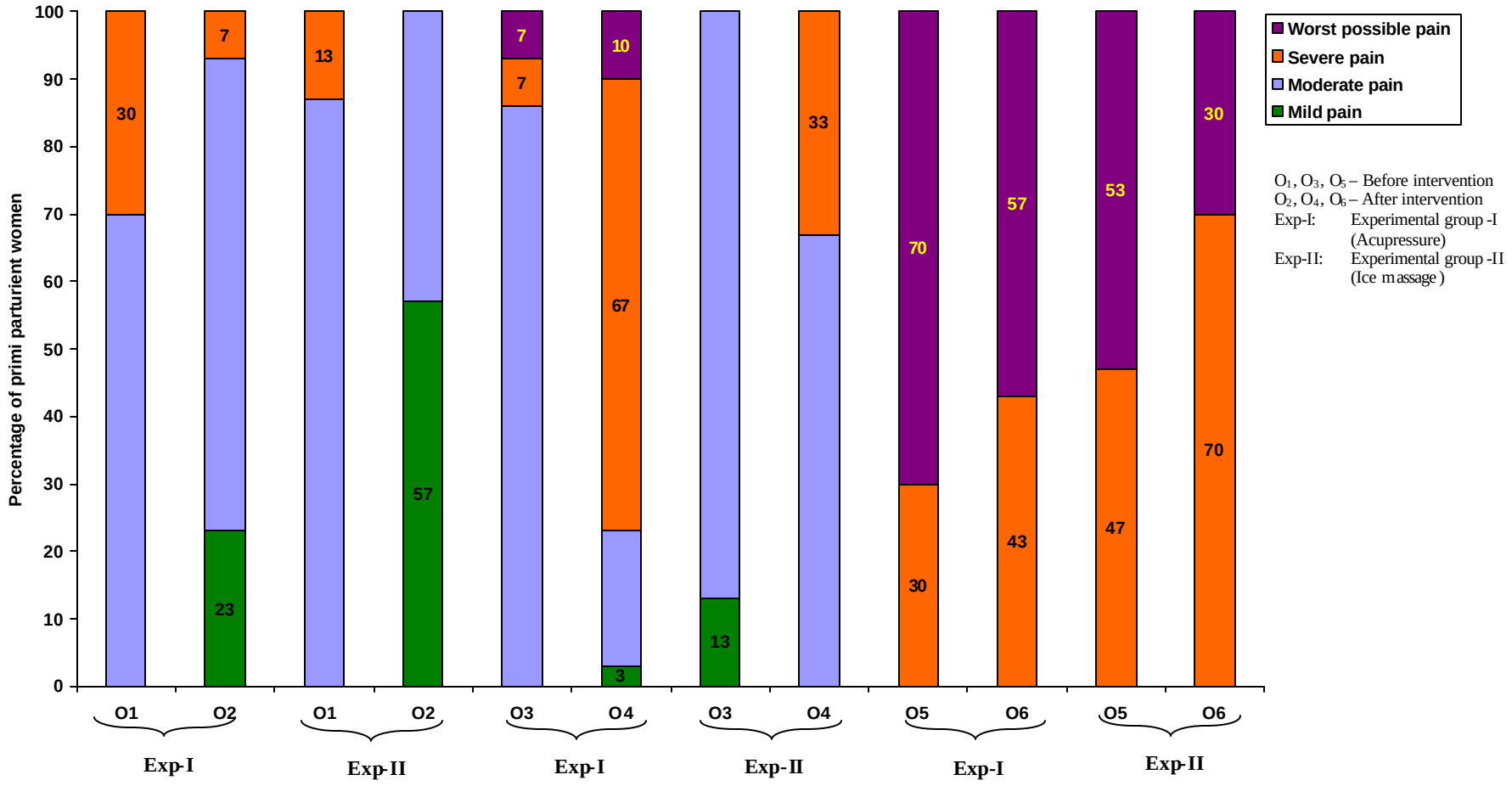


Figure -4.2: Percentage distribution of Primi parturient women according to their level of labour pain before and after Ice massage.

The above figure shows that in experimental group-II (Ice massage) the level of labour pain before intervention in (O_1 and O_3) 26(87%) had moderate pain, in (O_5) 16(53%) had worst possible pain respectively. After interventions (O_2, O_4 and O_6) 17(57%) had mild pain, 20(67%) had moderate pain, and 21(70%) had severe pain respectively. This finding reveals that Ice massage given during first stage of labour reduces the level of labour pain among primi parturient women.



LEVEL OF LABOUR IN EXPERIMENTAL GROUP- I AND II

Figure-4.3: Percentage distribution of primi-parturient women according to their level of labour pain before and after acupressure and ice massage intervention

The data presented in figure 4.3 which shows that in experimental group-I &II (Acupressure and Ice massage) the level of labour pain before first intervention (O_1) was 21(70%) and 26(87%) had moderate pain respectively. After first intervention (O_2) the level of labour pain in experimental group-I 21(70%) had moderate pain and experimental group-II 17(57%) had mild pain respectively. It reveals that after first intervention of acupressure and Ice massage the experimental group-II primi parturient women had less level of labour pain than experimental group-I

In experimental group-I and II the level of labour pain before second intervention (O_3) was 26(86%) and 87% had moderate pain respectively. After second intervention (O_4) in experimental group I and II the Level of labour pain 20(67%) had severe and moderate pain. It revels that after second intervention of Acupressure and Ice massage the experimental group I and II Primi parturient women had less reduction of level of labour pain. It might be associated with labour progress.

In experimental group-I and II (Acupressure and Ice massage) the level of labour pain before third intervention (O_5) was 21(70%) and 16(53%) had worst possible pain respectively. After third intervention (O_6) the level of labour pain among experimental group-I 17(57%) had worst possible and experimental group-II 21(70%) had severe pain respectively. It reveals that after third intervention of Acupressure and Ice massage the experimental group-II primi parturient women had less level of labour pain than experimental group-I.

Sectio n- B

Mean, Standard deviation and mean difference of Acupressure Vs Ice massage among primi-parturient women.

Table -4.2:

b. Mean, Standard deviation and mean difference of Acupressure Vs Ice massage on level of labour pain.

n=60

Intervention	Experimental group - I (Acupressure) (n=30)			Experimental group – II (Ice massage) (n=30)		
	Mean	SD	Mean difference	Mean	SD	Mean difference
O_1	5.77	1.00	1.30	5.30	1.02	1.73
O_2	4.45	1.17		3.57	0.94	
O_3	8.03	1.06	0.45	7.40	0.86	1.50
O_4	7.58	1.49		5.90	1.06	
O_5	9.55	0.62	0.15	9.47	0.63	0.63
O_6	9.66	0.55		8.83	0.99	

The above table shows mean difference of experimental group-I (Acupressure) value were 1.30, 0.45 and 0.150, whereas in experimental group-II (Ice massage) value were 1.733, 1.50 and 0.633. So it can be concluded that experimental group-II got less pain reduction than experimental group-I.

Section-C

Hypotheses Testing

Table -4.3:

a. Comparison of Effectiveness of Acupressure Vs Ice Massage on level of labour pain Among Primi-Parturient Women in experimental group I and II

n=60

Observation	Experimental group - I (Acupressure) (n=30)		Experimental group – II (Ice massage) (n=30)		
	Mean	**SD**	**Mean**	**SD**	**'t' value**
O_1	5.77	1.02	5.30	1.02	1.68
O_3	8.03	1.07	7.40	0.86	2.52*
O_5	9.55	0.62	9.45	0.63	0.05
O_2	4.47	1.166	3.57	0.93	1.76
O_4	7.58	1.49	5.90	1.06	3.69**
O_6	9.67	0.55	8.83	0.99	4.88**

* significant at $p<0.05$ level, table value – 1.96;

** highly significant at $p<0.01$ level, table value – 3.29; df – 58;

Table-4.3 reveals that in experimental group I and II before intervention (O_1 and O_5) calculated 't' value were 1.68 and 0.05 respectively whereas O_3 the calculated 't' value was 2.52 which was significant at $p<0.05$ level.

In experimental group I and II after first intervention was 1.76 which is not significant at $p<0.05$ whereas 2nd and 3rd after intervention calculated 't' value were 3.68 and 4.44 shows highly significant difference between the two groups at $p < 0.001$ level. Hence the research hypothesis H_1 is retained. So, it can be concluded that ice massage was effective in reducing the level of labour pain.

b. Association Between the Level of Labour Pain Among Primi-Parturient Women with their Demographic Variables.

H_2: There is a significant association between the level of the labour pain among the primi-parturient women of experimental group I and II their selected demographic variables at $p < 0.05$ level.

Table–4.4: Association between the level of labour pain among the primi-parturient women and their selected demographic variables.

n=60

Demographic variables		Experimental group-I (Acupressure) (n=30)		df	Chi-square	Table value	Experimental group-II (Ice Massage) (n=30)		Df	Chi-square	Table value
		Level of labour pain					Level of labour pain				
		Moderate	Severe				Moderate	Severe			
1 Age in years	a. < 20	5	2	3	2.693	7.81	7	1	3	1.045	7.81
	b. 21 – 25	9	4				12	2			
	c. 26-30	7	2				4	1			
	d. 31-35	-	1				3	-			
2. Educational status	a. Illiterate	1	-	5	6.937	11.1	-	2	5	6.937	11.1
	b. Primary education	-	2				1	-			
	c. Secondary education	2	1				3	-			
	d. Higher Secondary education	7	1				8	1			
	e. Under Graduate	9	4				11	3			
	f. Post Graduate	2	1				3	2			
3. Occupation	a. Homemaker	16	7	2	0.621	5.99	13	1	3	3.022	7.81
	b. Private employee	4	1				8	1			
	c. Govt. employee	1	1				4	1			
	d. Self employee	-	-				1	1			
4. Type of work	a. Mild	6	4	2	0.663	5.99	18	2	2	4.038	5.99
	b. Moderate	13	4				5	-			
	c. Severe	2	1				3	2			
5. Weeks of pregnancy	a. 38 weeks	4	2	3	6.971	7.81	5	1	4	3.635	9.49
	b. 39 weeks	5	1				12	-			
	c. 40 weeks	6	6				5	2			
	d. 41 weeks	6	-				3	-			
	e. 42 weeks	-	-				1	1			

The data presented in table 4.4 shows that there is no significant association between selected demographic variables and level of labour pain in both experimental group– I and experimental group-II. Hence it can be concluded that H_2 is rejected.

Summary

This chapter the investigator discussed about distribution of primi parturient women according to their demographic variables, level of labour pain, mean and standard deviation comparison of effectiveness of intervention between experimental group I and II and association with their selected demographic variables.

CHAPTER V

DISCUSSION

The primary purpose of this study was to compare the effectiveness of acupressure vs ice massage over meridian point on level of labour pain in primi-parturient women during first stage at a selected Hospital, Salem.

Description of demographic variables

- In experimental group I and II 13(43.3%) and 14.(46.67%) primi parturient women in the age group of 21-25 years. These findings were little higher in Mohana's study (2008) which reported that 12(48%) of them belongs to the age group of 21-25 years.
- In experimental group I and II 13(43.3%) and 14(46.67%) completed their undergraduate education. These findings were little lower than Jamuna Rani G study, (2010). She reported that 70% of mothers are graduate whereas it concluded that most of the mothers are educated
- Distribution of primi-parturient according to their occupation in experimental group I and II 23(76.7%) and 14(46.67%) women's were home makers. These findings were little lower when compared to K. Anbuselvi's study (2009) in which 13(86.7%) were home makers. In experimental group-I 15(50%) were moderate workers, whereas in experimental group II 20(83.3%) were mild workers.
- In experimental group I 12(39.86%) were in 40 weeks of pregnancy and in experimental group II 11(36.6%) mothers were in 39 weeks of pregnancy.

The first objective of the study was to assess the level of labour pain among primi-parturient women of experimental group I & II

Distribution of primi-parturient women according to their level of labour pain before 1st intervention (O_1) of acupressure 21(70%) of primi-parturient women had moderate pain and in post test no change was found. In experimental group-II (ice massage) before 1st intervention (O_1) 26(86.66%) had moderate pain whereas after intervention (O_2) 17(56.66%) found to have mild pain.

Investigator found that majority of women having mild to moderate pain during first intervention. Hence a need was felt to incorporate complementary therapy in reduction of level of labour pain among primi parturient women to promote comfort

The second objective of the study was to compare the effectiveness of acupressure vs ice massage over meridian point on level of labour pain among primi-parturient women of experimental group I & II.

The comparison of effectiveness of level of labour pain among primi parturient women in experimental group I and II shows mean difference of experimental group-I (Acupressure) values were 1.30, 0.45 and 0.150 respectively whereas in experimental group-II (Ice massage) values were 1.733, 1.50 and 0.633 respectively.

In experimental group I and II the independent 't' value of first intervention was 1.76 which is not significant at $p< 0.005$ level whereas after 2nd and 3rd intervention 't' value were 3.68 and 4.44 shows highly significant difference between the two groups at $p < 0.001$ level. Hence the research hypothesis H_1 is retained. So, it .can be concluded that ice massage was effective in reducing the level of labour pain.

Latha., (2003) conducted a Quasi Experimental study to identify the effectiveness of ice massage over acupressure meridian points (L14-Hegu). One group pre-test and post-test design was used. The data was collected from 90 parturient mothers in the RSRM Hospital, Chennai using combined categorical Numerical Pain Intensity Scale used assessing the pain. The treatment group calculated paired 't' value was 19.93 significant at $p<0.001$ level.

The third objective of this study was to associate the level of labour pain among primi-parturient women with their selected demographic variables.

There was no significant association found between the level of labour pain of primi-parturient women with their selected demographic variables such as age, educational status, occupation, type of work, weeks of pregnancy at ($p<0.05$ level). It can be concluded that there is no significant association between the level of labour pain among primi-parturient women with their selected demographic variables.

This findings supported by **Jamuna Rani. G, (2010)** Quasi experimental pre and post-test with control group design adopted to evaluate the effectiveness of Hoku ice massage, 40 samples were selected there is no association found between 2 groups with their selected demographic variables.

Summary

This chapter dealt with discussion of the study with the difference of objectives and supportive studies.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

A quasi experimental design was adopted to compare the effectiveness of acupressure vs ice massage on level of pain during 1st stage of labour in primi-parturient women. The study was conducted from 5.6.10 to 31.6.10 at Salem Polyclinic. Sixty primi parturient women were selected by simple random sampling technique.

A structured interview schedule was used for data collection, it consists of two parts. Section-A deals with demographic characteristics of primi-parturient women, Section-B consists of Numerical Pain Intensity Scale used to assess the level of labour pain during 1st stage of labour among primi-parturient women.

The Major findings are summarized as follows;

- In experimental group I & II 13(43.3%) &14(46.67%) of primi parturient women were in the age group of 21-25 years.
- In experimental group I & II 13(43.3%) & 14(46.67%) were undergraduates.
- In experimental group I & II 23 (76.7%) & 14(46.67%) were home makers.
- In experimental group-I & II 15(50%) were moderate workers and 20(83.3%) were mild workers.
- In experimental group-I & II 12 (39.86%) were in 40 weeks of pregnancy& 11(36.6%) of them were in 39 weeks of pregnancy.
- Experimental group-I and II mean difference (Acupressure) values were 1.30, 0.45 and 0.150, whereas in experimental group-II (Ice massage) values were 1.733, 1.50 and 0.633.So it can be concluded that experimental group-II got less pain reduction than experimental group-I

- Second and third after (O_4, O_6) intervention 't' value shows highly significant difference between the two groups at $p < 0.001$ level. Hence the research hypothesis H1 is retained. So, it can be concluded that ice massage was effective in reducing the level of labour pain.
- There was no significant association ($p< 0.05$ level) found between the level of labour pain score of primi-parturient women with their selected demographic variables such as age, educational status, occupation, type of work, and weeks of pregnancy. It can be concluded that there is no significant association between the level of labour pain during 1st stage of labour among primi-parturient women with their selected demographic variables.

Conclusion

The majority of women who deliver vaginally, experience some degree of pain and discomfort before delivery. In this study, the investigator wanted to find out the effectiveness of acupressure and ice massage on level of labour pains in parturient women.

In experimental group I and II the 't' value of after first intervention was 1.76 whereas after 2nd and 3rd intervention 't' value shows highly significant difference between the two groups at $p < 0.001$ level. So, it can be concluded that Ice massage was effective in reducing the level of labour pain.

There was no significant association ($p< 0.05$ level) found between the level of labour pain score of primi-parturient women with their selected demographic variables such as age, educational status, occupation, type of work, weeks of pregnancy. It can be concluded that there is no significant association found between the level of labour pain among primi-parturient women with their selected demographic variables.

Implications

Nursing practice:

- Acupressure and ice massage to be used in various areas of community health centre and maternity centre.
- Midwife can plan ice massage as a routine care during labour.
- Student nurses can use this intervention in reduction of labour pain.
- Acupressure and ice massage to be used by Multipurpose Health Worker and Nursing Assistants.
- Nurses should encourage and teach the partners to practice acupressure and ice massage during labour.

Nursing education:

- Nursing curriculum should update nursing student to identify and provide supportive health education to the primi-parturient women regarding acupressure and ice massage for relieving pain during 1st stage of labour. That will be useful for Nurses to provide information about acupressure and ice massage at home situation.
- Nursing education should emphasis the care of parturient women during labour and various measures to relieve labour pain. Student and teachers can work together in clinical area to alleviate pain during labour.
- Nurses can teach non pharmacological procedure that mother can do at themselves which reduces and relieve the pain without any side effects of medicine.

Nursing administration:

- The Nurse Administrator should co-ordinate her activity in promotive aspects of care among primi parturient women by participating, practicing, supervising ice massage.
- Nursing Administrator should organize Inservice Education Programme regarding the effectiveness of ice massage on level of labour pain for staff nurses.
- The nursing curriculum should update Nursing Students to identify and provide quality care and hospital policy can include acupressure and ice massage on care of primi-parturient women during 1st stage of labour and in turn help to reduce the hospital cost.

Nursing research:

- There is a need for extended and intensive nursing research in the area of maternal and child health especially to assess the effectiveness of acupressure and ice massage.
- Research should be done on innovative method of teaching, better practice of nursing care and development of good and effective policies to provide quality nursing care on labour pain management during 1st stage of labour.
- Nurses can use this study finding as evidence based practice in reducing labour pain.

Recommendations

- Study can be done in Primary Health Centre to identify the intensity of labour pain.
- A similar study can be conducted on a large sample to generalize the findings.

- A study can be done to assess the knowledge and practice of ice massage among support persons in the labour ward.
- A study can be done to assess the effectiveness of structured teaching programme on Ice massage practice on reduction of labour pain among antenatal mothers.
- Both treatments can be given to the same mother with particular time intervals and compliance can be studied.
- Comparison can be done by using these two method of treatment between primi and multi mothers.

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ANNEXURE - A

LETTER SEEKING PERMISSION TO CONDUCT A RESEARCH STUDY

SRI GOKULAM COLLEGE OF NURSING
3/836, Periyakalam, Neikkarapatti, Salem - 636 010.
Phone : 0427 - 6544550 Fax : 0427 - 2270200, 2447077
Email : sgcon2001@yahoo.com, sgcon2001@gmail.com

Date : 03-07-2010

To

Dr.Resmi Rao
Managing Director,
Salem polyclinic,
Salem.

RespectedMadam,

Sub: Permission to conduct a research study request reg.

I, **N. SUDHA**, a final year M.Sc., (Nursing) student of Sri Gokulam College of Nursing, is conducting a research study in partial fulfillment of Tamil Nadu Dr. M.G.R. Medical University, Chennai as a part of the requirement for the award of M.Sc., (Nursing) Degree.

Topic: "A Comparative Study to Assess the Effectiveness of Acupressure Vs Ice Massage Over Meridian Point on Level of Labour Pain during first stage of labour in Primi-Parturient Women at a selected Hospital, Salem".

I request you to kindly permit her to conduct the study in your esteemed Hospital from 5.07.10 to 31.07.10. She will adhere to the hospital Policies and regulations.

Thanking you.

Yours Sincerely,

3/7/10

(Prof. A. Jayasudha)
PRINCIPAL
Sri Gokulam College of Nursing
3/836, Periakalam, Neikkarapatti
SALEM - 636 010

ANNEXURE-B

TOOL FOR DATA COLLECTION

SECTION – A: DEMOGRAPHIC DATA

Instruction to the participants

Dear participants, this section consists of personal information and you are requested to answers the following information. The data given by you will be maintained confidential.

Sample No:

Date:

1. Age
   a) Less than 20 years ( )
   b) 21-25years ( )
   c) 26-30 years ( )
   d) 31- 35 years ( )
2. Educational Status
   a) Illiterate ( )
   b) Primary education ( )
   c) Secondary education ( )
   d) Higher Secondary education ( )
   e) Graduate ( )
   f) Post Graduate ( )

3. Occupation

   a) Home-maker ( )

   b) Private employee ( )

   c) Government employee ( )

   d) Self employee ( )

4. Type of work

   a) Sedentary work ( )

   b) Moderate work ( )

   c) Heavy work ( )

5. Weeks of pregnancy

   a) 38 weeks ( )

   b) 39 weeks ( )

   c) 40 weeks ( )

   d) 41 weeks ( )

   e) 42 weeks ( )

SECTION – B

NUMERICAL PAIN INTENSITY SCALE

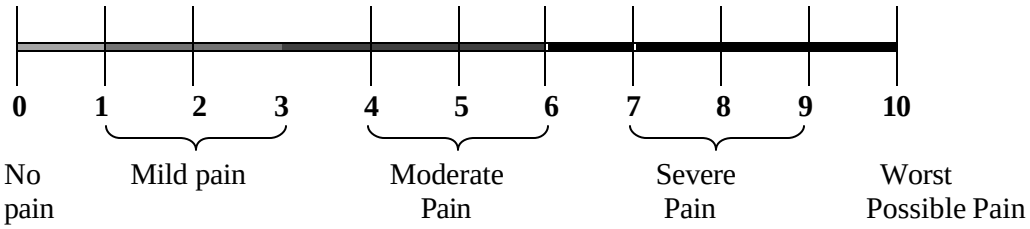
Instruction to the participants

The Numerical Pain Intensity Scale shown to the participants before and after intervention by the investigator to evaluate the intensity of labour pain.

DESCRIPTION OF TOOL

Section-B consists of Numerical Pain Intensity Scale to assess the level of labour pain.

0 – 10 Numerical Pain Intensity Scale (American Pain Society)



This scale helps to assign a number from zero to ten according to the severity of their pain. The total pain score is interpreted as,

0 = No pain
1 – 3 = Mild pain
4 – 6 = Moderate pain
7 – 9 = Severe pain
10 = Worst possible pain

Acupressure / Ice massage						
Samples	Before intervention pain score			After intervention pain score		
	O_1	O_3	O_5	O_2	O_4	O_6

PROCEDURE

ACUPRESSURE

DEFINITION:

Acupressure is an non-invasive procedure where only pressure is applied on meridian point which triggers the release of endorphins which are neuro-chemical receptors which relieves the pain.

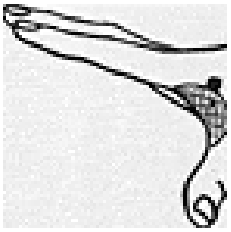
PURPOSE

1. Acupressure helps to reduce labour pain.
2. Acupressure is a Non-invasive procedure
3. Acupressure has no side effects

PRINCIPLES

1. Birth is natural, normal and healthy.
2. Every women has the rights for giving birth free from usual medical interventions.
3. The confidence level and the ability of giving birth in every women is either improved or diminished by the practitioner and birth place.

PROCEDURE



1. Advice the woman to adopt comfortable position.
2. Encourage the woman to relax.
3. Assess the level of labour pain before intervention.
4. Support the woman left hand with investigator left hand.
5. Start to give pressure at the beginning of contraction on meridian point for 3 mts duration (which is located on the medial mid point of the first metacarpal in 3-4mm of skin) by the investigator right hand to the woman's left hand between thumb and forefingers.
6. Repeat the procedure for every 2 hours maximum of 3 times.

After care

1. Place the woman hand in comfortable position.
2. Record the procedure.
3. Assess the level of pain after 10mts of the procedure.

Record sheet

S. No	Time	Duration

ICE MASSAGE

DEFINITION

Massage with crushed ice (which measures 3 x 2 cm) for treatment of pain which is activating the gate control pain system rather than eliminating the source of pain.

PRINCIPLES

1. Decreases conductivity of pain receptors and nerves (when cooled to 10^{o}C).
2. Short application cold can be effective adjunct to therapeutic exercise by stimulating muscle function.
3. Decreases in local metabolic rate.

EQUIPMENTS

1. Terry cotton cloth (4 inches square shape cloth) - to cover the ice cubes.
2. Crushed ice cubes (3 x 2cm) - for massage.

PROCEDURE

1. Advice the woman to adopt comfortable position.
2. Encourage the woman to relax.
3. Assess the level of labour pain before intervention.
4. Take soft thin wash cloth (4 inches) place crushed ice cubes at the centre of the cloth and 4 corners lifted to the centre.
5. Support the woman left hand with investigator left hand.
6. Start to give ice massage by the investigator's right hand to the woman's left hand at the beginning time of contraction and repeat for 4 subsequent contractions.
7. Repeat the procedure for every 2 hours maximum of 3 times.

After care

1. Place the woman hand in comfortable position.
2. Record the procedure.
3. Assess the level of pain after 10mts of the procedure.

Record sheet

S. No	Time	Duration

gphpT - m

jdpegh gwwpa mbggil tpguqfs

mdghhejgqNfwghshfNs›

,ggFjpapy nfhLffgglNfstpfs cqfspd jdpgglltpguqfis mwpeJfnfhss gadgLjjggLfpwJ. eqfs mspfFk tpguqfs gjjpukhf ghJfhffggLk.

khjphpvz :

Njjp:

1. jhapd taJ (tUlqfspy)

m. 20fF fo ( )

M. 21 - 25 ( )

,. 26 - 30 ( )

<. 31 - 35 ( )

2. jhapd fytp jFjp

m. gbffhjth ( )

M. njhlff fytp ( )

,. eLepiyffytp ( )

<. Nkyepiyffytp ( )

c. ,sepiygljhhp ( )

C. KJepiygljhhp ( )

3. njhopy

m. ,yyjjurp ( )

M. jdpahhNtiy ( )

,. muRNtiy ( )

<. Ranjhopy ( )

4. Ntiyaâd tif

m. ,yFthd Ntiy ( )

M. kâjkhd Ntiy ( )

,. fbdkhd Ntiy ( )

5. fhggfhy thuk

m. 38 thuk ( )

M. 39 thuk ( )

,. 40 thuk ( )

<. 41 thuk ( )

,. 42 thuk ( )

ANNEXURE-C

LETTER REQUESTING OPINION AND SUGGESTIONS OF EXPERTS FOR CONTENT VALIDITY OF THE RESEARCH TOOLS

From

N. SUDHA,
Final Year M.Sc., (N)
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To,

Respected Sir/ Madam,

Sub: Requesting opinion and suggestions of experts for establishing content validity of the tools.

I, **N. SUDHA**, a Final Year M.Sc., (Nursing) student of Sri Gokulam College of Nursing, Salem. I have selected the topic mentioned below for the research project to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai for the partial fulfilment of Master's Degree in Nursing.

Topic: "A Comparative Study to Assess the Effectiveness of Acupressure Vs Ice Massage Over Meridian Point on Level of Labour Pain during first stage of labour in Primi-Parturient Women at a Selected Hospital, Salem".

I wish to request you kindly validate the tool and give your expert opinion for necessary modification. I will be grateful to you for this.

Thanking you

Yours sincerely,

Place : Salem

Date : **(N. SUDHA)**

ANNEXURE-D

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by Ms **N. SUDHA**, Final year M.Sc. Nursing student of Sri Gokulam College of Nursing, Salem (affiliated to Dr. M.G.R. Medical University) is validated and can proceed with this tool and content for the main study entitled **"A Comparative Study to Assess the Effectiveness of Acupressure Vs Ice Massage Over Meridian Point on Level of Labour Pain during 1 st stage in Primi-Parturient Women at a Selected Hospital, Salem".**

Signature with Date

ANNEXURE-E

TRAINING CERTIFICATE

AROKKYA HEALTH AND EDUCATION INDIA PVT. LTD.,

Regd. by Govt. of Tamil Nadu - Reg.No. 244/2009

Regd. Office :
No.88, 1st Cross, Nedunchalai Nagar, Salem - 5.

Admin. Office :
5/356, State Bank Colony - II, Salem - 4.

Participation Certificate

Certified that

Mr. / Mrs. / Ms. **N. SUDHA**

took part in the Acupuncture Training and Workshop Conducted at SALEM *and is awarded this Certificate of Participation on* 04.07.2010 To 19.09.2010

The active participation and the interesting performance of the above candidate are highly welcome and appreciated.

V.E.

Aro. DR. V.E. KALAI SELVAN, M.D.(Acu).,
Chairman

ANNEXURE -F

LIST OF EXPERTS FOR VALIDITY

1. **Mrs. Resmi Rao, MBBS, DGO.,**
   Consultant Obstetrician and Gynaecologist,
   Salem Polyclinic, Salem.

2. **Mr. V.E. Kalaiselvan, MD., (Acu)**
   Acupuncture and Touch heal therapy,
   Arokkiya Acupuncture Clinic,
   Salem – 5

3. **Mr. Kandasamy, M.Sc (N)., (Ph.D.)**
   Associate Professor,
   Former HOD. of Community Health Nursing,
   Sri Gokulam College of Nursing, Salem.

4. **Mrs. Amutha. K, M.Sc (N).,**
   Associate Professor,
   Dept. of Obstetric and Gynecology Nursing,
   Sri Gokulam College of Nursing, Salem.

5. **Mrs. R. Nalini, M.Sc (N).,**
   Assistant Professor,
   Dept. of Obstetric and Gynecology Nursing,
   Sri Gokulam College of Nursing, Salem.

6. **Mrs. Shella Theres , M.Sc (N).,**
   Lecturer,
   Sri Gokulam College of Nursing, Salem.

ANNEXURE – G

CERTIFICATE OF EDITING

TO WHOMSOEVER IT MAY CONCERN

Certified that the dissertation paper titled **"A Comparative Study to Assess the Effectiveness of Acupressure Vs Ice Massage Over Meridian Point on Level of Labour Pain during first stage of labour in Primi-Parturient Women at a Selected Hospital, Salem"** by **Mrs. SUDHA. N,** It has been checked for accuracy and correctness of English language usage and that the language used in presenting the paper is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose.

SIGNATURE

WINGS
ENGLISH ACADEMY
1,2,3, IInd Floor Ratha Complex,
Five Roads, SALEM-636 004.

ANNEXURE – H

PHOTOS

BEFORE ICE MASSAGE

ICE MASSAGE OVER MERIDIAN POINT

ACUPRESSURE OVER MERIDIAN POINT

ASSESSMENT OF LEVEL O F LABOUR PAIN