EFFECTIVENESS OF SITZ BATH AND INFRARED RAYS ON PAIN AND WOUND HEALING AMONG PRIMI POSTNATAL MOTHERS IN A SELECTED HOSPITAL. TIRUPUR

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A DISSERTATION SUBMITTED TOTHE
TAMILNADU DR. MGR MEDICAL UNIVERSITY,
CHENNAI, IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF MASTER
OF SCIENCE IN NURSING
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APPROVED BY DISSERTATION COMMITTEE ON _____

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Certified Bonafide Project Work

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ACKNOWLEDGEMENT

ABSTRACT

Women must be viewed holistically and in the context in which they live. Their physical, mental, and social factors must be considered because these interdependent components influence women's health and illness.

Once the effect of local anesthetics wear off, mother feel more pain in episiotomy site and develop signs of inflammation in that area. During first few days after birth, they have the trouble in urinating and passing bowel movements. The complications of episiotomy wound are infection, partial dehiscence, abscess at episiotomy site, damaging the pelvic floor, impact on mother and infant bonding, impact on sexual relationship and incontinence.

This study was aimed to assess the effectiveness of sitz bath and infra red rays on pain and wound healing among primi postnatal mothers in a selected hospital, Tirupur

The conceptual framework of the study was based on the modified Imogine "King's goal attainment theory" (1980).The study made use of true experimental research design. Simple random sampling technique was used to select 60 samples for the study, 30 in experimental group and 30 in control group. The intervention was administration of infrared rays in the morning and sitz bath in the evening for four days in the experimental group. The tool used for the study was Short form McGill Pain Questionnaire to assess pain and REEDA Scale to assess wound healing. The data gathered was analyzed employing descriptive and inferential statistics. There is a significant difference between experimental and control group test score for pain ('t' value = 11.1) and wound healing ('t' value=7.6). The study findings revealed that infra red rays and sitz bath was beneficial and there was a significant reduction in pain and improved wound healing in experimental group among primi postnatal mothers who had undergone episiotomy.

CHAPTER-1

"SCIENCE OF HEALING IS AN ART OF NURSING".

- **Howard**

BACK GROUND OF THE STUDY:

Post partum period lasts from delivery to six weeks afterward, it is also known as fourth trimester. The post natal mothers experience various physiological and psychological changes when she makes the transition from the pregnant woman to a mother. The needs of the client and the family during the post partum period can be met through coordinated multi disciplinary care of the mother, child and the family.

Paultte.D.,(1996)

Early discharge plan for the post natal mother can be confirmed by the evaluation of the mother's health status and comfort level, self care education. Assessment at the time of discharge includes vital signs, fundus, breast, uterus, bladder, bowel, lochia, episiotomy, Homan's sign and emotional status of the women. The routine hospital stays after uncomplicated vaginal delivery had ranged from 12 hours to one week. The current hospital stay for mothers having normal vaginal delivery is 24 to 48 hours. The attending provider is permitted to discharge the client earlier if the client agrees.

Littleton.Y.L.,(2007)

The first performance of episiotomy was done in 1974, when perineal insertion was used to facilitate deliveries. Episiotomy is the surgical incision made to enlarge the vaginal opening for delivery of baby's head. Depending on the client preference, situation and provider preference and judgement, some women experience delivery with an episiotomy. This is an incision through the perineal tissues that is designed to enlarge the vaginal outlet during the delivery. The rationale for its use depends largely on the need to minimize the risk of severe, spontaneous, maternal trauma and to expedite the birth when there is evidence of foetal compromise.

Fraser.M.,(2007)

Episiotomy is a common surgical procedure performed during 2nd stage of labour, it may be lateral, Mediolateral or central. Episiotomy facilitates birth of the fetus, shortens the second stage labour and prevents tearing of the perineum.

Paullette.D.,(1996)

Although the episiotomy may be simpler to repair than the laceration it is related to the high incidence of third and fourth degree lacerations. Even when recognized and repaired properly there it has lifelong implications, most significant in regard to continence of flatulence and stools. Pain and edema are the most frequent post episiotomy findings. Dyspareunia may be the complaint for some woman for up to three months post partum. Infection is one of the most serious complications of episiotomy, leading to significant morbidity and mortality.

Evans.A.T.,(2007)

Episiotomy infection can be observed by persistent redness and swelling, separation of wound edges, purulent discharge and persistent pain. The immediate complications related to episiotomy are extension of the incision, vulval haematoma, infection, wound dehiscence, injury to the anal muscles and necrotizing fasciitis. The remote complications related to episiotomy are dyspareunia, chance of perineal lacerations and scar endometriosis.

Dutta.D.C.,(2004)

In this era of advanced modern technology all mothers are looking hopefully in nurses to help in bringing down maternal morbidity rate and relieve them form from pain and discomfort soon after birth. Thus it becomes the nurse's responsibility to identify the ways of reducing and preventing maternal problems as well as to identify the cost effective measures in relieving

pain. Relieving pain and promoting comfort to the mother is important basic need. It can also establish and improves mother and child relationship.

Lacrent.C., (1992)

Episiotomy wound can cause a considerable discomfort and pain the perineum is extremely tender area and the muscles of perineum are involved in many activities. e.g sitting, walking, controlling urination and defecation. This discomfort interferes with the rest and sleep. Mother feels discomfort even when she holds her baby and it affects breast feeding and newborn care. A cortisone based cream or a sitz bath helps to decrease inflammation to relieve tension in that area.

Pillitteri.A.,(2007)

Specific measures to control infection and promote wound healing are use of soap and water to wash vulva and perineum, change the perineal pad every 2 to 3hours, place ice packs against the episiotomy for 1 hour period every 2 hours during the first 24 hours following birth, sit in warm sitz bath for 15 to 20 minutes, apply a topical anesthetic to the episiotomy at every pad change.

Paullette.D.,(1996)

Care of episiotomy wound is by ice pack application in the perineum to reduce pain and edema, sitz bath may be used to reduce local discomfort until the episiotomy wound heals, use of heat lamp 2 or 3 times a day also assist in healing process.

Lynna Y. L.,(2007)

There is effect of infra red rays in reduction of pain and episiotomy wound healing. A good blood supply is essential for healing to take place and if there is infection the increased number of red blood cells and increase

exudation of fluid are all of assistance in destroying the bacteria. The infra reds rays have the following effect on human body like, rising temperature in tissues expand capillary vessels, promotes blood circulation and helps to remove toxins from cells and improve lymphatic system function.

Elizabeth.A.,(2000)

Heat in the form of lamps, warm sitz bath and moist pack is thought to produce vasodilatation and increase circulation. There by alleviating pain and promoting healing. Infrared rays is an effective means of relieving pain. When the healing is mild the relieving pain is probably due to sedative effect on the superficial nerve endings. Local anesthesia in the form of sprays, creams and ointments penetrate in to the sensory nerve endings and reduce the response to sensory stimuli by producing a depressant effect on the peripheral nerves. Ice packs are used to reduce swelling.

Ramler.R.,(1986)

One of the most important mechanisms of action for infrared light therapy is release of nitric oxide. A naturally occurring chemical in the body, nitric oxide is a key signaling molecule which can set off a number of beneficial effects. Most notably, it has a critical role in promoting blood flow to tissues. It also indirectly inhibits inflammation processes, thus reducing inflammation. In acute inflammatory responses, such as sudden injury, large increases in nitric oxide levels can play a role in increased pain. However, within the nervous tissues smaller levels of nitric oxide release, as stimulated by light therapies, can paradoxically have pain reducing effects.

Marshell.J.,(2008)

Sitz bath is one of the oldest, cheapest and safest treatments for curing many common ailments. The technique exploits the reaction of the body to hot stimulus. It is seen that heat soothes the body hence increasing the internal activity. Cold water shunts the blood to internal organs whereas hot water removes the waste from the body tissues.

Joseph.M.,(2009)

NEED FOR THE STUDY

In worldwide there is considerable international variation in the rate of episiotomy. The rate is of 15% in England, 13% in Scotland, 10% in Wales and 22% in Northern Ireland, it is 8% in Holland, 14% in England, 50% in the USA and 99% in Eastern Europe.

Royal .C.,(2004)

In United States, percentage of episiotomies performed out of all vaginal deliveries is 19.4%. Episiotomy rates were higher among white women (32.1%) than African American women (11.2)

In Ireland the rate of episiotomy for operational deliveries was 37.5 %. Over all episiotomy rate at Denmark was 19.8%in 2000.

Jeffery.L., (2000)

In Australia episiotomy rate is currently around 35%. In Taiwan, it is accepted practice to do an episiotomy on all first time mothers, here the rates are close to 90%. China, Spain, South Africa and Turkey also report extremely high episiotomy rates ranging from 60% to almost 90%. The rate of episiotomy in Sweden is 9.7%.

In Canada, There was an overall episiotomy incidence of 48%; obstetricians performed episiotomy in 54% and family physicians in 33% women.

In Russia, episiotomy rates varied from 9–80%.

Justin .P.,(2007)

In India the overall rate of episiotomy is 40.6%. Among that midwives performed episiotomy was lower rate 21.4% than faculty 33.3% and private providers 55.6%.

Robinson.,(2000)

In New Delhi, Episiotomy rates differ according to care provider. The episiotomy rate among midwives was 25% and 40% among medical doctors. Younger doctors are also less likely to perform an episiotomy than older doctors; one study found the rate of episiotomies performed by residents to be 17%, while the rate among doctors in private practice was 66%.

J.Rank(2008)

In Madhya Pradesh, routine episiotomy was done in 72.7% of women. While the rate of restrictive episiotomy group is 27.65 % and has concluded that there was an increases risk of anterior perineal trauma with restrictive episiotomy.

T. Santha ; (2009)

In Chennai, the incidence of episiotomy was 96 percent for first pregnancies, they were 100 percent in private hospital, it fell to about 7% in primary health centre and to 0% at the sub centre.

Narindas.H.,(2008)

The complication of episiotomy includes asymmetry (32.9%), infection (23.7%), partial dehiscence (14.5%), skin tags (7.9%), haemorrhage (5.3%) and extension of the incision (1.3%). 85% women experienced some form of trauma. Tears to the rectum and vaginal vault were more common with episiotomy.82% of the women with large episiotomy, delay in starting to have sexual relations. The suturing of the episiotomy was found to be painful by 40% women. 20% woman had pain in the perineum for more than one month. 10% woman had infections in the episiotomy, half of these required treatment. Wound infections from episiotomy amounted to 3% of women of this 27% of maternal deaths occurs.2.6% of women need further surgeries to fix episiotomy complications.

Katherine.H.et.al.,(2007)

The episiotomy wound has some risk which includes blood loss, pain, infections, delayed healing, dyspareunia and may contribute to maternal blues. Risk for infection is increased in severe post episiotomy pain is estimated to occur in 60% women. Pain and edema may inhibit urination and defecation after delivery. Therefore it is necessary to reduce episiotomy pain

Reading.et. al., (1990)

An experimental study was done to assess the effectiveness of infra red therapy and sitz bath on the perineum after episiotomy at selected corporation centre of Coimbatore. In this study matched group experimental design was adopted. 30 samples were randomly assigned to treatment conditions. The average pain score for infra red radiation and sitz bath are 0.2, 0.866 respectively. The 't' test value is 2.8263, the calculated value is more than the table value(1.701). there is decreased pain intensity to mothers who had undergone the treatment of sitz bath and infra red rays.

The investigator from her personal experience during her clinical postings at postnatal wards identified many complications like resuturing, purulent discharge and mother feels more discomfort and pain from episiotomy site among postnatal mothers with episiotomy.

The researcher felt that, when postnatal mothers are cared with nursing measures during postpartum period, the severity of pain and infection are reduced. So the researcher intended to do a study on postnatal mothers with episiotomy using two specific nursing procedures.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of infra red rays and sitz bath on pain and wound healing among primi postnatal mothers in a selected hospital, Tirupur

OBJECTIVES

1. To assess the pre test and post test level of pain and wound healing among primi postnatal mothers in experimental group.

2. To assess the pre test and post test level of pain and wound healing among primi postnatal mothers in control group.

3. To compare the pre test and post test level of pain and wound healing among primi postnatal mothers in experimental group.

4. To compare the pre test and post test level of pain and wound healing among primi postnatal mothers in control group.

5. To compare the post test level of pain among primi postnatal mothers between experimental group and control group.

6. To compare the post test level of wound healing among primi postnatal mothers between experimental group and control group.

7. To find the association between post test level of pain among primi postnatal mothers in experimental group with their selected demographic variables.

8. To find the association between post test level of wound healing among mothers in experimental group with their selected demographic variables.

OPERATIONAL DEFINITION:

EFFECTIVENESS

Effectiveness means producing an intended result.

Kinderley.,(2007)

In this study effectiveness refers, the extent to which sitz bath and infra red rays produces a significant difference in episiotomy pain and wound healing by using statistical measures.

INFRARED RAYS

Infra red rays supplies a radiant heat (invisible heat rays beyond the red end of spectrum) from infra red lamp at distance of 45 cm to 55 cm to provide localized heat to the area of body.

Lakhwinder (1986)

In this study infra red rays refers to placing the infra red lamp at 45 cm distance towards episiotomy wound for 10 minutes every morning for four days.

SITZ BATH

Sitz bath is a form of hydrotherapy given by using hot or cold water, steam and ice to restore and maintain health. It increases the blood flow to the pelvic and abdominal areas and alleviates a variety of problem

Linda., (2007)

In this study sitz bath refers to immersing the perineum in a basin of warm water at a temperature of 105 degree Fahrenheit for 10 minutes every evening for four days.

PAIN

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage.

Lewis.,(2004)

In this study pain refers to the intensity of pain perceived by primi postnatal mothers on episiotomy site measured by Short Form Mc Gill Pain Questionnaire and its scores.

WOUND HEALING

Restoration of integrity to injured tissue by replacement of dead tissue with viable tissue.

Bailliere's .,(2009)

In this study wound healing refers to absence of symptoms such as redness, edema, ecchymosis, discharge and approximation as measured by REEDA scale and its score.

POSTNATAL MOTHERS

Postnatal mother belongs to the period beginning immediately after the birth of a child and extending for about six weeks.

Whales.J., (2008)

In this study, it refers to primi mothers who have undergone normal delivery with episiotomy after a period of six hours to 5 days.

PRIMI POSTNATAL MOTHERS

Mothers who are pregnant for the first time.

Reeder .J.,(2003)

In this study primi mothers refers to the mothers who delivers for the first time with episiotomy.

HYPOTHESES

H1: The mean post test scores of pain is significantly lower than the mean pre test score among mothers in experimental group.

H2: The mean post test scores on wound healing is significantly lower than the mean pre test score among mothers in experimental group.

H3: The mean post test scores of pain in experimental group is significantly lower than the mean post test score of control group.

H4: The mean post test scores of wound healing in experimental group is significantly lower than the mean post test score of control group.

H5: There will be significant association between post test pain scores among mothers in experimental group with their selected demographic variable.

H6: There will be significant association between post test scores of wound healing among mothers in experimental group with their selected demographic variable

ASSUMPTIONS

❖ Primi Mothers with episiotomy experiences pain.

❖ Improper care of episiotomy will lead to infections.

❖ Nurses have an important role in reducing episiotomy pain and promotion of wound healing

DELIMITATIONS

➢ The study is delimited to

➢ 60 samples

➢ 5 weeks of data collection.

PROJECTED OUTCOME:

This study helps the mother to reduce the pain and promote wound healing during postnatal period. It promotes interest in non pharmacological treatment approach to episiotomy pain and wound healing. The comfort and relief may help the mother to have postnatal period without any complications and also it helps for maternal and infant wellbeing.

KING'S GOAL ATTAINMENT THEORY

The purpose of the conceptual framework is to make the students and researchers to identify and analyze events in specific nursing situation. This framework suggests the essential characteristics of nursing and those properties that have persisted in spite of environmental changes. This theory was related to the means of analyzing the interactions.

King derived the following seven hypotheses in goal attainment theory:

- ❖ Perceptual congruence in nurse patient interaction increases the mutual goal setting.
- ❖ Communication increases mutual goal setting between nurse and patient and leads to satisfaction.
- ❖ Satisfaction of the patient increase goal attainment.
- ❖ Goal attainment decrease stress and anxiety in nursing situation
- ❖ Goal attainment increase patient learning and coping ability in nursing situation.
- ❖ Role conflict experienced by the patient, nurses or both decreases transaction in nurse patient interaction.

The elements of interaction are

- ▪ Action
- ▪ Reaction
- ▪ Disturbance
- ▪ Mutual goal setting
- ▪ Explore means to achieve goal
- ▪ Transactions
- ▪ Goal achieved

This theory combines some factors from the classification system and the process of human interaction.

THEORY OF GOAL ATTAINMENT:

Major components of theories of goal attainment are stated in her interpersonal system in which two people who are the strangers come together in health care organization to help and to be helped to maintain a state of health that permits functioning in roles.
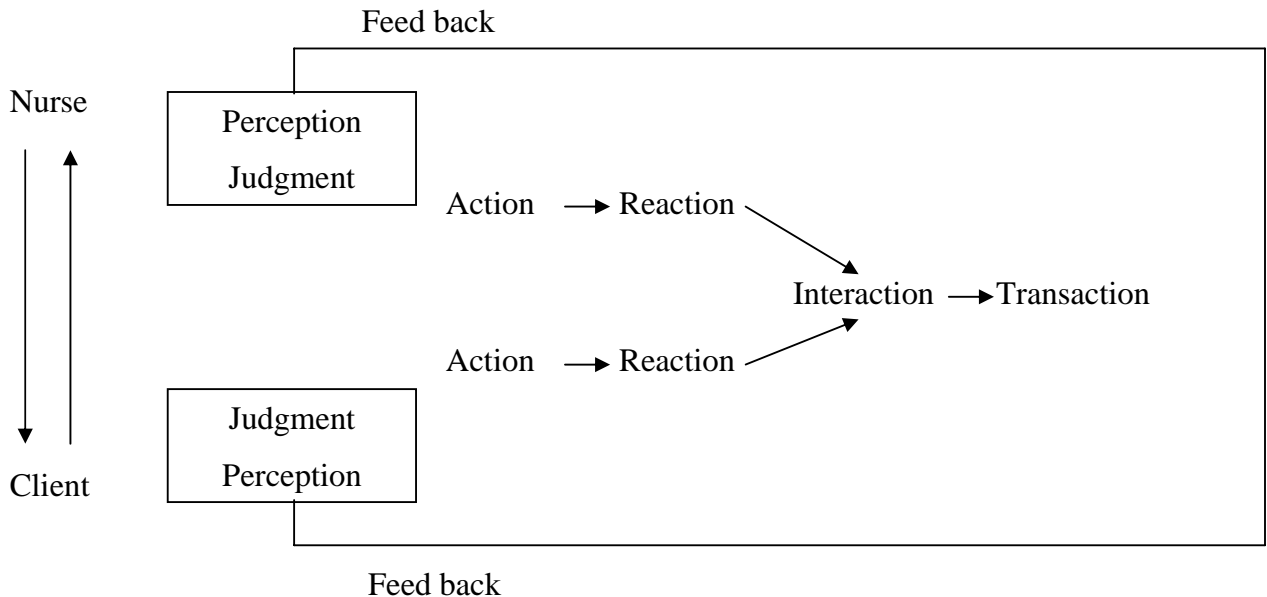
PERCEPTION:

According to theorist, Perception is each person's representation of 'reality'. The elements of perception are the imparting of energy from the environment and organizing it by information transforming energy, information, storing information and exploring information in the form of overt behaviour.

In this study perception reveals the pain perceived by the patient and assessing the level of pain and condition of the wound by the nurse. The researcher collected the demographic variables such as age, education, occupation, religion, monthly income, type of family and residence. Pretest was done by using McGILL pain questionnaire and REEDA scale in both experimental group and control group.

JUDGEMENT

According to theorist, Judgement is a mental action that decides to act, it focus on as the intervention that is going to be in action.

In this study nurse decides to reduce episiotomy pain and promote wound healing. The mother needs a reduction in episiotomy pain and fast wound healing and recovery.

ACTION

According to theorist, Action is defined as a sequence of behaviour, involving mental and physical action. First the mental action helps to recognize the presenting condition and physical action helps to begin activities related to those condition and finally mental action in effort to exact control over the situation combined with physical action seeking to achieve the goals. It means taking some actions to promote wound healing and to decrease episiotomy pain.

In this study, the action represents deciding to provide sitz bath and infrared rays on episiotomy site wound by the nurse to the patient in the experimental group and to use existing hospital routine in control group. The client decides to take some measures to promote wound healing and decrease episiotomy pain.

REACTION:

According to theorist, Reaction is the sequence of behaviour described in action.

In this study, it includes the efforts taken by the nurse by means of intervention for both groups. The nurse explains the procedure to experimental group and gets the consents from the samples. In experimental group the client decides to cooperate and accept infra red rays and sitz bath for 4 days.

INTERACTION

According to theorist, Interaction is defined as the process of perception and communicated between person and environment and between person and person represented by verbal and non verbal behaviour that are goal directed. Hence each individual involved in an interaction brings different ideas, attitudes and perception to exchange. It includes the perception, judgment, action and reaction. Interactions are the observable behaviour of two or more person in mutual presence.

In this study interaction represents the procedure done by the nurse for the experimental group. Infra red rays were given for 10 minutes once every morning and sitz bath was given for 10 minutes once every evening for 4 days. The clients in experimental group undergo the procedure of infra red rays and sitz bath for 4 days.

TRANSACTION

According to theorist, Transaction is defined as the observable behaviour of human beings interacting with that environment. Transactions represent the valuation component of human Interactions and involved bargaining, negotiating and social exchange. When Transaction occurs between nurses and clients goals are attained. It is a purposeful interaction that leads to goal attainment. Transactions for this conceptual framework are derived from cognitions and perceptions.

In this study, the post test was done in experimental group and   control group using McGILL Pain Questionnaire to assess severity of pain and REEDA Scale to assess wound healing. The pain level was graded as no pain, very mild pain, mild pain, moderate pain, severe pain and worse pain possible. The wound healing was graded as no infection, mild infection, moderate infection and severe infection.

Thus King's states that, a professional nurse with special knowledge, skills and perception of personal problems meets the strangers in natural environment. They interact mutually to identify problems and achieve goals.

Nurse

Client

PERCEPTION:
Collected the demographic variables age, education, occupation, religion, monthly income, type of family and residence and pretest was done. The level of episiotomy pain and wound healing was assessed by using McGILL pain questionnaire and REEDA scale in both experimental group and control group.

JUDGEMENT:
Reduction of episiotomy pain and promotion of wound healing

ACTION:
Experimental group:
Decides to provide sitz bath and infra red rays on episiotomy site

Control group:
Decides to use the existing hospital routine

REACTION
Experimental group:

NURSE:
explains the procedure, get consent from samples and taking the efforts to provide sitz bath and infra red rays.

INTERACTION:
Experimental group:

NURSE:
Infrared rays was given for 10 minutes once every morning. Sitz bath was given for 10 minutes every evening for 4 days.

The post test level of pain was evaluated by McGILL Pain Questionnaire and wound healing was evaluated by REEDA Scale in both experimental group and control group.

TRANSACTION:
McGILL PAIN QUESTIONNAIRE

No pain	0
Very mild pain	1-9
Mild pain	10-19
Moderate pain	20-29
Severe pain	30-39
Worst pain possible	40-49

REEDA SCALE

No infection	0
Mild infection	1-5
Moderate infection	6-10
Severe infection	11-15

PERCEPTION:
Mother feels pain in episiotomy site and need for wound healing.

JUDGEMENT:
Mothers need a reduction in episiotomy pain and fast wound healing and recovery

Action:
Taking some measures to promote wound healing and to decrease episiotomy pain.

CLIENT:
Understanding the procedure and giving acceptance Decides to co operate for sitz bath and infra red rays

CLIENT:
Undergoing the procedure of sitz bath and infra red rays for 4days

FIG : 1 CONCEPTUAL FRAMEWORK (MODIFIED KINGS GOAL ATTAINMENT MODEL (1980)

CHAPTER -II
REVIEW OF LITERATURE

Review of literature consist of two parts namely overview of episiotomy and studies related to episiotomy.

PART-I

OVERVIEW OF

   a) Physiological changes during postnatal period.

   b) Episiotomy

PART-II

   a) Studies related to prevalence of episiotomy.

   b) Studies related to risk factors and complications of episiotomy.

   c) Studies related to episiotomy wound care.

   d) Studies related to sitz bath and infra red rays in episiotomy wound care.

PART-I

OVERVIEW OF

   A) PHYSIOLOGICAL CHANGES DURING POSTNATAL PERIOD:

INVOLUTION OF UTERUS

Following delivery the fundus lies about 13.5 cm above the symphysis pubis. During the first 24 hrs the level remains constant; thereafter there is a steady decrease in height by 1.25 cm in 24 hrs, so that the end of second week the uterus will becomes a pelvic organ. After pain that is a infrequent spasmodic pain felt in the lower abdomen which is a minor disorder present during postnatal period. It is mainly due to present of clot which leads to uterine contraction. This can be treated by massaging the uterus.

Dutta D.C.,(2004)

LOCHIA

Meaning:-

It is the vaginal discharge for the first fortnight during puerperium. The discharge originate from the uterine body, cervix and vagina.

Color of lochia:-

- Lochia rubra:- red in color present for 1-4 days.
- Lochia serosa:- Yellowish or pink or pale brownish in color present for 5-9 days.
- Lochia alba:- Pale white in color present for 10-15 days.

Amount :-

The average amount of discharge for the first 5-6 days, is estimated to be 250 ml.

Normal duration

The normal duration may extend up to 3 weeks.

Urinary tract

There will be Stagnation of the urine along with a devitalized bladder wall contribute to the urinary tract infection in puerperium. This can be prevented by taking lot of fluid which is also helps to prevent tiredness due to dehydration.

Gastro-Intestinal tract

Dietary intake should be more due to breastfeeding. Small and frequent diet and fluid should be taken during postnatal period. There will be Increased thirst in early puerperium is due to loss of fluid during labour, in the lochia, diuresis and perspiration. Slight intestinal paresis leads to constipation.

Dutta D.C.,(2004)

Weight Loss

Weight loss during postnatal period is due to explesion of the fetaus or uterine contents, that is further loss of about 2 kg. It also mainly caused by diuresis. It means more fluid is loss in urination.

Fluid Loss

There is net fluid loss of at least 2 liters during the first week and an additional 1.5 liters during the next 5 weeks. The amount depends on the amount retained during pregnancy, dehydration during labour and blood loss during delivery.

<div align="right">

Dutta D.C.,(2004)

</div>

Breast changes

Secretion of milk after delivery is due to hormonal secretion. Secretion of milk will be more if mothers provide adequate feed and taking adequate diet.

Menstruation and Ovulation

The onset of the first menstrual period following delivery is very variable and depends on lactation. If the woman does not breast feed her baby the menstruation returns by 6th week following delivery in about 40% and by 12th week in 80% of cases.

<div align="right">

Dutta D.C.,(2004)

</div>

Hormonal Changes

During pregnancy, levels of estrogens (estradiol, estriol, and estrone) and progesterone rise steadily in large part as a result of placental production of these hormones. With removal of the placenta at delivery, estrogen and progesterone levels drop sharply, reaching pregravid levels by the fifth postpartum day. Prolactin's role in psychopathology has been suggested by the association of anxiety, depression, and hostility in nonpregnant women with pathologic hyperprolactinemia compared with control subjects.

<div align="right">

Leifer G.,(2005)

</div>

Psychological changes of postnatal period

A transition is a movement or passage from one position or concept to another. It is a pause between what was and what is to be or the internal process experienced by people when change occurs. In a classic presentation of what transition entails, Bridges(1994) states this as change is something that happens to people and transition is how they responded to change.

The postpartum period is a time of transition during which the couple gives up concepts such as "childless" or parents of one and moves to the new beginning of parenthood. The immediate postpartum period is a neutral time during which the couple tries out the new role and attempts to "fit" their expectations for that role.

Pillitteri A.,(2003)

CARE IN IMMEDIATE POSTPARTUM PERIOD:

Care of the mother during postpartum period focus on the following:

- Maintaining the physiologic safety of the mother through frequent assessments.
- Providing comfort measures.
- Establishing bladder elimination.
- Providing health education.

Providing comfort measures:

Ice packs: both cold and warmth are used to alleviate perineal pain following child birth. Ice causes vasoconstriction and is more effective if applied soon after the birth to prevent edema and to numb the area. Chemical ice packs of a glove filled with ice and tied at the cuff is often used during the first 12 hours following a vaginal birth.

Perineal care: perineal care consists of squrinting warm water over the perineum after each voiding or bowel movement. Perineal care cleanses,

provides comfort and prevents infection of the area that often has an episiotomy or lacerations. The perineum is gently patted rather than wiped to dry.

Topical medications: anesthetic sprays decrease surface discomfort and allow more comfortable ambulation. The sprays are used following perineal care and before clean pads are applied.

Sitting: the mother is advised to squeeze her buttocks before sitting and to lower her weight slowly onto her buttocks.

Sitz bath: sitz bath, it provides continuous circulation of water, cleanse and comfort the traumatized perineum. Cool water reduces the pain caused by edema and may be more effective within the first 24 hours. Warm water increases the circulation and promotes healing and may be most effective after 24 hours.

Promoting bladder elimination

Many primi mothers have difficulty in voiding because of edema and trauma in the perineum as well as diminished sensitivity to fluid pressure in the bladder. As soon as they are able to ambulate safely, mothers should be assisted the bathroom. The common measures for promoting bladder elimination are: running water, pouring water in mother's vulva, placing mothers hand in water, asking the mothers to blow bubbles through a straw, encouraging urination in a shower or sitz bath. The recommended fluid intake is at least 2500 ml per day.

B. OVERVIEW OF EPISIOTOMY:-
DEFINITION OF EPISIOTOMY:

A surgically planned incision on the perineum and the posterior vaginal wall during the second stage of labour is called episiotomy (periniotomy)

D .C Dutta.,(2010)

An episiotomy is a surgical cut in the perineum which is the muscular area between the vagina and rectum.

Baby Centre India., (2010)

TIMING OF INCISION:-

If the episiotomy was given too early it will fail to release the presenting part and haemorrhage. From blood vessels may ensure .the incision is best made on a contraction when the tissues are stretched. So that there is a clear view of area and bleeding is less likely to be severe.

Diana. S.,(2003)

TYPES OF INCISION:-

Median: incision is made in the middle of the perineum and directed towards the rectum and easy to repair and more comfortable for the patient during the healing process.

Medio lateral: incision laterally begins at the fourchette and is directed at a 45 degree angle to the midline towards a point midway between the ischial tuberosity and the anus. It could be enlarged when needed. Mother feels uncomfortable during healing process.

Lateral: the incision starts from about 1 cm away from the centre of fourchette and extents laterally.

'**j' shaped** :the incision begins in centre of fourchette and is directed posteriorly along the midline for about 1.5 cm and then directed downwards and out wards along 5 and7 'o clock position to avoid anal sphincter.

D.C.Dutta., (2010)

 INDICATIONS OF EPISIOTOMY:-

- Serious risk to mother of second or third degree tear.
- In case if the natural delivery is adversely affected but a caesarian section is not indicated.
- When the baby is very large.

- When perineal muscles are excessively rigid.

- When instrumental delivery is indicated.

- When women has undergone female genital mutilation.

- Prolonged late decelerations

- Fetal bradycardia.

- The baby's shoulder are stuck or a bony association.

<div align="right">**Book shelf.,(2005)**</div>

USES OF EPISIOTOMY:-

Episiotomy was said to produce following benefits:

- Speed up the birth

- Prevent tearing and laceration

- Protect against incontinence

- Promote pelvic floor relaxation

- Heals easier than tear

<div align="right">**Robin .E.,(2008)**</div>

SIDE EFFECTS OF EPISIOTOMY:-

- ❖ Infection

- ❖ Increased pain

- ❖ Increase in third and second degree vaginal laceration

- ❖ Longer healing times

- ❖ Increased discomfort when intercourse is resumed

<div align="right">**Robert. J.,(1995)**</div>

NURSING INTERVENTION IN EPISITOMY WOUND CARE

- Dressing: the wound is to be cleaned after defecation to keep the area clean and dry. It is done by swabbing with cotton soaked in antiseptic lotion

- Comfort: to relieve pain magnesium compress or application of infra red radiation may be used. Analgesic drug may be given.

> ➢ Removal of stitches: when the wound is sutured by catgut which will be absorbed. But if non Absorbable material is used the nylons has to be removed by 6th day.
>
> ➢ Ambulance: the patient is allowed to move out of bed after 24 hours.

D C. Dutta .,(2010)

❖ Clean the perineum from front to back after every voiding and defecation

❖ Focus infra red ray on the perineum for 15 minutes 2 or 3 times in first 24 hours of delivery to promote fast healing.

❖ Practice proper hand washing after perineal care.

❖ Use fruit juices that are rich in vitamin c to increase resistance against infection.

❖ External antiseptic applied to the episiotomy wound after every perineal care or 2 times a day.

Trained Nurses Association., (2008)

Sitz bath can be beneficial. Medications can range from over the counter products depending on the extent of pain. Tropical sprays are used to cool and make the area numb. Perineum is kept dry.

Care of wound:-to reduce stringing effect of the wound pour cool water on the area as they pass urine. Soak the perineum in cool salt water 5 to 10 minutes once or twice daily for quick healing. Feminine sprays or powders should not be used as they interfere with healing process. Lift heavy items only after 6-8 weeks after delivery.

Robin .D.,(2000)

To keep the episiotomy wound clean by oneself:-

o Place a cool gel pad, ice pack on your stitches.

o Have a warm bath

- Try to expose the stitches in air.
- Walk around as much as possible and practice pelvic floor exercise to stimulate wound healing.
- Drink plenty of water and wholesome diet to avoid constipation.
- Use mild laxatives if it is difficult to pass stools for first few days.
- Keep the stitches clean and dry.
- Apply an antiseptic cream on the wound for a few days.
- Sitz bath helps in cleaning as well as reducing pain and swelling.

Baby centre India.,(2010)

PART-II
A) STUDIES RELATED TO PREVALENCE OF EPISIOTOMY:

Brain L.,(2001) conducted a study to assess the effectiveness of restrictive use of episiotomy compared with routine episiotomy during vaginal birth in Centro Rosarino hospital, Argentina. 5541 postnatal women are included in the study. Randomized trial was used for the study. Two authors independently assessed trial quality and extracted the data. The results are given by frequency and percentage distribution. The study result reveals that in routine episiotomy group 75.1% of women had episiotomies, while in restrictive episiotomy group 28.4% women had episiotomies. Compared to routine use restrictive episiotomy group resulted in less perineal trauma, less suturing and few healing complications. Restrictive episiotomy was associated with more anterior perineal trauma 36%. It was concluded that restrictive episiotomy has more benefits related to routine episiotomy.

Culhane.J.,(2002) conducted descriptive study was conducted to assess the prevalence of episiotomy among primi postnatal mothers at child birth clinic, United States. Simple random sampling was used . Episiotomy is the most common during postnatal period. It occurs in 20% to 73% of primi women in hospital deliveries. 4% to 13% had fourth degree perineal laceration where

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(r=0.07,p<0.01).80% of episiotomy is because of prolonged labour, obstructed deliveries and infant weighing 2800 to 4000g. The study reveals that most of the primi postnatal mothers (73%) have complaints due to episiotomy during the postnatal period.

Krone.m.et.al.,(2008) conducted a study to assess whether the episiotomy at first vaginal delivery increase the risk of spontaneous obstetric lacerations in subsequent deliveries in Magee women's hospital at Pennyslavia, USA. 6052 patients were included in the study. Data was collected by Magee obstetric maternal and infant data base. Multivariable polytomous logistic regression was used for data analysis. The study result reveals that 47.8% of them had episiotomy in first delivery. Spontaneous second degree laceration at the time of second delivery occurred in 51.3% who has the history of episiotomy compared with 26.7% without having the history of episiotomy (p<.001). Only 1.7% has laceration without the history of episiotomy. The study concludes that episiotomy at first vaginal delivery increases the risk of spontaneous obstetric laceration in subsequent delivery.

B) STUDIES RELATED TO RISK FACTORS AND COMPLICATIONS OF EPISIOTOMY:

Hilger.S.et.al.,(2000) conducted a cross sectional study for 101 samples selected randomly in NHS hospital, Pune. The objective of the study was to determine the rate and describe the risk factors for episiotomy and perineal tear in low risk primi gravida. Check list was used to assess the rate of episiotomy and their causes. Inferential statistics was used for data analysis. The study result reveals that, 83% of women explain some sort of perineal trauma. 40% of mothers had episiotomy only, while 65 % had episiotomy and perineal tears. 37% had perineal and other tears without episiotomy. The main reason for episiotomy is fetal distress 27% and impending tears 25% and delay of the second stage labour 21%. The distribution of having episiotomy is increased with the second stage of labour irrespective of the time of delivery.

Fenner.d.,(2003) conducted a study to estimate the incidence of urinary and bowel incontinence, and the factors associated with anal sphincter laceration in university of Michigan Medical center. Questionnaire was prepared separately for urinary function and bowel function and sent to women who delivered vaginally with episiotomy along with demographic variables. 943 women completed urinary function questionnaire and 831 women completed bowel function questionnaire. Univariate analysis was performed in all covariates, multiple logistic regression was used for analysis of presence of laceration. The study results shows that, 19% of the women sustained third and fourth degree laceration during child birth, 23% women had sphincter laceration $p>.05$. About 70% of midline episiotomy women had anal sphincter laceration and 50% of women had urinary incontinence after delivery.

Choa.et.al.,(2010) conducted a study to find the effect of episiotomy on pain, urinary incontinence and sexual function upto 3 months postpartum, in a medical centre at Taiwan. A prospective follow up study was used. The tool consist of short form Mc Gill pain questionnaire, international consultation on incontinence questionnaire, female sexual function index and demographic variables. Data analysis was done by ANOVA and chi square test. Validity and reliability were assessed using cronbach's alpha coefficient and factor analysis. The study result shows that the women who delivered without episiotomy had significantly lower perineal pain scores on 1, 2, 6th day compared to women who had episiotomy ($p=0.006,0.039,0.0497$) groups. The mean urinary incontinence score was significantly higher in the episiotomy group 3 months postpartum ($p=0.0065$). No degree of sexual dysfunction was found between the group.

C) STUDIES RELATED TO EPISIOTOMY WOUND CARE

Minassian.A.,(2002) conducted a study to estimate the efficacy of lidocaine ointment and placebo in relieving pain after a vaginal delivery with an episiotomy or perineal laceration in a selected hospital, Russia. A randomized double-blind, placebo-control trial was used for the study. Among 200 women, 108 women received lidocaine ointment and 92 received placebo. Pain relief was assessed by the amount of ointment used, total number of pain pills and pain questionnaire. Data analysis was done by ANCOVA method. In the study patients receiving lidocaine instead of the placebo showed no significant in total amount of post partum pain medications, subjective pain parameters and satisfaction. It concludes 5% lidocaine ointment was not effective in relieving episiotomy pain.

Taehan.C.,(2004) designed a study to verify the effectiveness of aromatherapy on the postpartum mothers episiotomy in Eulji university Hospital, Korean. The research design used for the study was clinical trial. The methods of aromatherapy were applied sitz bath or soap application with essential neroli, rose, grapefruit. 90 postnatal mothers who delivered with episiotomy were included in the study. They are allocated to one of the three groups namely aroma sitz –bath group, aroma soap application group and control group. The tool used for measuring the wound healing was by REEDA Scale and smears of episiotomy. Data was analyzed by ANOVA, ANCOVA, Chi square test and multiple response regression by SPSS programme. The result shows that REEDA Scale was significantly low in the experimental group at postpartum 5th and 7th days (p=.009, p=.003). These findings indicate that postpartum aromatherapy would be effective in healing episiotomy.

Gasymova.et.al.,(2006) conducted a study to assess the effectiveness of magnetic laser radiation in healing episiotomy injuries in maternity patients, in government hospital, Russia. Quasi experimental research design with convenient sampling technique was used. 86 patients with perineal injury and

episiotomy were studied in treatment. In control group 40 patients were treated by antibiotics and experimental group 46 patients were treated by magnet laser therapy. Paired t test and chi square test are used for data analysis. The study result reveals that 88% of patients in experimental group reported less discomfort, decrease in pain intensity and hyperaemia after 2 or 3 procedures in MLT. It was reported that 2.5% of full divergence and 7.5% of partial divergence in control group. It was concluded that application of MLT improves the process of wound healing in episiotomy patients.

Frank.J.,(2006) conducted a comparative study of cold and warm sitz baths in relieving perineal pain after episiotomy in postpartum period in Gandhi memorial hospital, Hydrabad. True experimental research design was used and the patients are assigned randomly. 40 patients were assigned for both cold and warm sitz bath. A pain scale using 0 -5, o representing no pain and 5 representing extreme pain was used. Data analysis was done by using two -way analysis of variance. The study result shows that cold sitz bath were significantly more effective in relieving perineal pain at (p=.005) level of significance.

Prasong.S.(2007) conducted a study to assess the effectiveness of rectal naproxen for reducing perineal suture pain after vaginal delivery. A double blind randomized control trial of 142 postpartum women are randomly allocated to receive either naproxen (71 patients) and placebo (71 patients) suppositories. Short Form McGill Pain Questionnaire was used to evaluate perineal suture pain after 0,6 and 24 hours post partum. Pain scores are analyzed using unpaired t test. The study result shows that the pain scores for women in naproxen group were significantly lower compared with women in the placebo group(6.4and 2.3 vs 18.4 and 5.5;(p<0.001). Rectal naproxen is effective and safe for reducing perineal suture pain after vaginal delivery.

Vakilian.K.et.al.,(2010) conducted a study to know the healing advantages of lavender essential oil on episiotomy wound healing, at Essence Pharmaceuticals, Shahrood University of Medical Sciences in Iran. Random controlled clinical trial was selected for the study. The researchers enrolled 120 subjects, including primiparous women with singleton pregnancies who had episiotomies during spontaneous vaginal deliveries. The researchers used computerized block randomization to divide the subjects into 2 groups: lavender oil (n=60) and control(n=60). The control group received povidone-iodine antiseptic. The lavender oil group took sitz baths with 5-7 drops lavender essential oil in 4 L of water twice daily for 10 days. The evaluation was done based on 6 criteria: pain (visual analogue scale), edema (cm), redness (mm), dehiscence (wound opening), number of sutures, and infection. Retest (r=0.8) was used to assess reliability. The post test was done on the 10th day. Inferential statistics was used for data analysis. Incision site was assessed and there was no significant difference between two groups but the redness in lavender group was significantly less than the control where P=0.001

Higgens.M.et.al.,(2010) conducted a study to evaluate the postpartum healing of perineum following episiotomy pain in Bayview Medical Center, USA. True experimental research design with random sampling technique was used. 90 patients were assigned to one of the treatment groups namely 30 subjects applying warm perineal pack, 30 applying cold perineal pack and 30 subjects taking warm sitz bath. REEDA scale was devised to evaluate postpartum healing. Post test was done 24 hours after delivery. ANOVA and pearson r correlation are used for data analysis. Study result shows that there is no difference in REEDA score after treatment.

Fatemen.S.et.al.,(2011) conducted a comparative study on episiotomy discomfort and wound healing using cold gel pads in primiparous Iranian women. Randomized clinical trial was used for the study. The clinical trial involves 60 qualified primiparous women admitted for labour in Kamali

Hospital in Karaj, Iran. They are randomly allocated in to two groups with experimental and control group. The participant's pain and discomfort are recorded on VAS and REEDA Scale, respectively. Pain was evaluated 4th, 12th hours and 5th day after episiotomy. The obtained data was analyzed in SPSS 14 using independent 't' test and chi- square test. There were statistical difference in pain intensity scores of 2 groups in 4th hours (p=0.014), 12th hour (p=0.002) and 5 days (p=0.000) after episiotomy. The REEDA score was significantly low in the experimental group (gel pad groups) at 5 days after episiotomy (p=0.000). This study proves that applications of cold gel pads are better in episiotomy.

Fereshten.J.et.al.,(2011) conducted a study to assess the effectiveness of lavender oil in reducing the discomfort of post episiotomy mothers, in Karaj hospital Iran. The clinical trial involved 60 qualified primi women and they are randomly categorized in to two groups. In the study experimental group is using lavender oil and control group using hospital routine. Participants' pain and discomfort were recorded using a Visual Analogue Scale (VAS) and a Redness, Edema, Ecchymosis, Discharge Scale (REEDA). Pain was evaluated at 4 h, 12 h and 5 days following episiotomy. Collected data was analyzed in SPSS 14 using an independent t-test and chi-square. There was a statistical difference in pain intensity scores between the 2 groups after 4 h (p = 0.002, and 5 days (p = 0.000) after episiotomy. The REEDA score was significantly lower in the experimental group (Lavender oil group) 5 days after episiotomy (p = 0.000). According to these findings, use of Lavender oil essence can be effective in reducing perineal discomfort following episiotomy.

D) STUDIES RELATED TO SITZ BATH AND INFRA RED RAYS IN EPISIOTOMY WOUND CARE

Lakshmi.V.,(2003) conducted a comparative study to evaluate the effectiveness of infra red radiation verses warm sitz bath was conducted on level of pain in episiotomy wound among post natal mothers in Salem. 30

samples are taken for each group by simple random sampling. Infra red radiation was given to the first experimental group and sitz bath was given to second experimental group. Verbal descriptor scale was used to assess the pain of wound. The pain was assessed after 30 minutes of intervention. The mean difference between infra red radiation therapy and warm sitz bath after intervention was 9.93%. The study indicated that warm sitz bath was significantly more effective in decreasing the level of pain in episiotomy wound compared to infra red rays.

Dhanalakshmi.V.,(2004) conducted a study to assess the effectiveness of infra red therapy and sitz bath on the perineum after episiotomy at selected corporation centre of Coimbatore. In this study matched group experimental design was adopted. 30 samples were randomly assigned to treatment conditions. The instrument used for data collection includes socio demographic data, Modified Southampton Scale and wound status was assessed by modified Bates Jensen Wound Assessment Scale, pain was assessed by a verbal descriptor scale. Unpaired 't' test was done. The average pain score for infra red radiation and sitz bath are 0.2, 0.866 respectively. The 't' test value is 2.8263, the calculated value is more than the table value(1.701) the above results indicates mothers who had undergone the treatment of infra red therapy expressed decreased pain intensity compared to mothers who had undergone the treatment of sitz bath.

Sandhiya.B.D., (2007) conducted a comparative study to assess the episiotomy wound healing and comfort of primipara mothers with and without infra red rays in a selected hospital, Mangalore. A quasi experimental time series design was used for the present study. The sample consists of 40 primipara mothers who are assigned randomly to experimental and control group as with and without infra red rays. Tool used were base line proforma, wound assessment scale, numerical pain scale and comfort scale. Data were analyzed using descriptive and inferential statistics i.e. unpaired 't' test and chi-square test.

There is no significant difference in comparison of wound healing and pain in both groups, (p=0.05). In the area of comfort there was a significant difference of comfort score in experimental group and control group at <0.01. The findings of the study suggest that application of infra red rays helps in wound healing, pain reduction and increasing comfort.

Esther .J.et.al.,(2007) conducted a study to evaluate the effectiveness of infra red radiation on episiotomy wound among post natal mothers in a selected hospital, Coimbatore for 40 samples. Quasi experimental research design was adopted for the study. Tools used are personal interview for collecting demographic data, obstetric data and modified episiotomy wound assessment scale. Episiotomy wound healing and level of pain was assessed in both, control and experimental group, twice a day for three days. After the treatment of three days with infra red radiation, 75% of women showed adequate wound healing and 25% of them showed poor wound healing. In control group 70% of them showed poor wound healing. While analyzing the association by Chi-square test there was no association between healing of episiotomy wound with selected demographical and obstetrical variable. While analyzing the area of significance of mean 't' test, it was found that there was a significant difference between healing scores of experimental and control group after administration of infra red rays by three days at p =0.05 level of significance.

Venkadalaxmy.V.et al;(2009) conducted a study to find the effect of infra red therapy on episiotomy pain and wound healing in post natal mothers in selected Hospitals, Kovilpatti. It was experimental study of pretest post test design with 60 postnatal mothers were selected. Systemic random sampling technique was used. 30 mothers were randomly assigned to control and experimental group. Numerical rating scale 0-10, Reeda scale, structured interview schedule was used to assess the episiotomy pain and post partum healing of episiotomy. On the third day only 10% of the participants in the control group and all of the participants in experimental group expressed no pain. It was found that 10% of

the participant in control group developed mild infection, where as none of them had any infection in the experimental group on the third day after the administration of infra red radiation. The mean and standard deviation of episiotomy pain score were high in control group in comparison with the experimental group. The difference was statistically significant at p<0.001 level.

Padma.P.R.,(2009) conducted a study on effectiveness of sitz bath versus aseptic perineal care upon episiotomy wound healing among postnatal mothers in selected hospital at Chennai. Experimental approach was used with true experimental design. 60 postnatal mothers with episiotomy were selected. 30 postnatal mothers were assigned to Sitz bath and 30 postnatal mothers for Aseptic Perineal Care by probability sampling technique. Demographic & Obstetric variable proforma, REEDA scale, Check list were used to assess - nursing time and materials used for the Aseptic perineal care. Pretest was conducted on first day before giving Sitz bath and Aseptic perineal care using REEDA scale. Aseptic perineal care was given by the researcher twice a day in the morning and evening. The episiotomy wound was assessed every day morning before sitz bath and Aseptic perineal care using REEDA scale for three consecutive days. In the post test, all the postnatal mothers were free from infection (100%) in both Sitz bath and Aseptic Perineal Care. Mean cost of materials used for Sitz bath was less than that of Aseptic Perineal Care. The difference were found statistically significant at p<0.001. The findings of the study showed that the Sitz bath was cost effective when compared to Aseptic Perineal Care.

CHAPTER III
METHODOLOGY

RESEARCH METHEDOLOGY

This chapter deals with the methodology adopted for the study. It includes research approach, research design, settings and criteria for sample selection, sample and sampling technique, instrument, method of data collection and plan for data analysis.

RESEARCH APPROACH

Evaluative approach was used to assess the effectiveness of Infra red rays and sitz bath on Episiotomy pain and wound healing.

RESEARCH DESIGN

The research design selected for this study was true experimental research design.

SCHEMATIC PRESENTATION:

Group	Pre test	intervention	Post test
Experimental group	R O_1	X	O_2
Control group	R O_1	--	O_2

The symbols used are:

R- Selecting the samples randomly

O_1- Assessment of pretest level of pain and wound healing in experimental group and control group.

X - The intervention (Infra red rays and sitz bath)

O_2- Assessment of post test level of pain and wound healing in experimental group and control group.

SETTING FOR THE STUDY

The study was conducted in primi postnatal mothers of Hospital, Tirupur. It is a 450 bedded hospital specialized in medical surgical, cardiology, pediatric and obstetrical and gynecological units. About 1000 antenatal mothers visits outpatient department monthly. On an average 350 to 400 deliveries are conducted in a month, among this 250 were normal deliveries and 100 to 150 were caesarean section. Post natal ward was situated near to labour room. 30 beds are there with 80% occupancy. About 6 to 8 forceps deliveries were conducted in a month.

POPULATION

The population selected for this study was primi post natal mothers.

SAMPLE

Primi post natal mothers those who have undergone episiotomy.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

Primi,

Postnatal Mothers who have undergone episiotomy.

Postnatal Mothers between age group 18 to 35 years.

Mother's who are willing to participate in the study.

Exclusion criteria

Primi,

Postnatal Mothers who are critically ill.

Postnatal Mothers who were associated with illness such as GDM and PIH.

Postnatal mothers who have episiotomy with tear.

Postnatal mothers who have STDs and infection.

SAMPLE SIZE

Sample size composed of 60 primi postnatal mothers who had undergone episiotomy. 30 samples for experimental group and 30 samples for control group.

SAMPLING TECHNIQUE

The samples were selected by using simple random sampling technique, of which tossing a coin method was used for both experimental group and control group. If it is head mothers are included in experimental group, if it is tail mother is included in control group. The samples were selected from the same hospital.

METHOD OF DATA COLLECTION

DESCRIPTION OF THE TOOL

Tool consists of three parts

PART-I

It consists of demographic variables such as age, education status, occupation, religion, income, type of family and residence of the mother.

PART-II

It consists of SHORT FORM McGill PAIN QUESTIONNAIRE. It was used to assess the level of episiotomy pain after 6 hours of delivery.

It has three sections as the type of pain, pattern of pain and severity of pain.

Section	1	has 1 question it describes the type of pain.
Section	2	has 1 question it describes the pattern of pain.
Section	3	is a rating scale that describes the severity of pain. It consists of 8 questions rated as mild, discomfort, distressing, horrible and excruciating.

PART-III

It Consists of REEDA Scale to assess the status of the episiotomy wound after 6 hours of delivery. The tool includes 5 criteria such as redness, edema, ecchymosis, discharge and approximation of the episiotomy wound.

SCORING PROCEDURE AND INTERPRETATION

PART-I

It consists of demographic variables.

PART-II

Short Form McGill Pain Questionnaire consists of three sections which include the type of pain, pattern of pain and severity of pain. The tool has 10 questions and total score for this scale is 49.

The final score is given as

S. No	Level of pain	Score	Percentage %
1.	No pain	0	0
2.	Very mild pain	1-9	1 – 19
3.	Mild pain	10-19	20-39
4.	Moderate pain	20-29	40 - 59
5.	Severe pain	30-39	60- 79
6.	Worse pain possible	40-49	80- 100

PART-III

Observational checklist of REEDA Scale is scored as no infection -0, mild infection 1-5, moderate infection 6-10 and severe infection 11-15.

The level of infection was interpreted as follows:

Level of Infection	Score	Percentage %
No infection	0	0
Mild infection	1-5	7-33
Moderate infection	6-10	34- 66
Severe infection	11-15	67-100

VALIDITY

The tool was validated by 4 experts in the field of Obstetric and gynecological nursing and 1 Obstetrician. No modifications were done.

RELIABILITY

The reliability of modified Short form McGILL pain scale was assessed by testing the equivalence using inter rater reliability. Karl Pearson co-efficient formula was used. The value was found to be reliable (r=0.9).

The reliability of REEDA Scale was assessed by inter rater reliability method and Karl Pearson Co-efficient formula. The value was found to be reliable (r=0.9).

PILOT STUDY

The pilot study was conducted in a selected hospital, Tirupur, for a period of 5 days. The investigator has obtained written permission from the Medical officer and oral permission from each participant prior to the study. The purpose of the study was explained to the subjects prior to the study.

The pilot study was conducted with 6 samples for experimental and 6 samples for control group. The sample who met the inclusion criteria were selected by simple random sampling method. Pre test was done by Short Form McGill Pain Questionnaire and REEDA Scale to assess the pain and wound healing. For experimental group Infrared rays was given once a day every morning, 10 minutes for four days and Sitz bath was given once a day every evening for 10 minutes for four days. After intervention the level of pain and wound healing was assessed on the 5th day. In control group the pre test was done and the hospital routine was given and post test was done on the 5th day. The collected data was tabulated and analyzed using descriptive and inferential statistics. The paired 't' value for experimental group was 13.60 (table value= 2.571) at $P< 0.05$ level of significance and for control group 10.71 (table

value= 2.571) at P< 0.05 level of significance shows that there is a significant reduction in the level of pain in experimental group and control group. The paired 't' value for experimental group was 8.33(table value= 2.571) at P< 0.05 level of significance and for control group 0.89 (table value= 2.571) at P< 0.05 level of significance shows that there is wound healing in experimental group. Independent "t" test calculated value was 7.88 (table value= 2.228) at P < 0.05 level of significance shows that there is a significant difference between the level of pain among experimental and control group. Independent "t" test calculated value was 3.506 (table value= 2.228) at P < 0.05 level of significance shows that there is a significant difference between the level of wound healing among experimental and control group. After the pilot study it was found that it is feasible and practicable to conduct the main study.

DATA COLLECTION PROCEDURE

The main study was conducted in a selected hospital, Tirupur for 5 weeks. The written permission was obtained from the hospital medical officer and nursing superintendent. Oral consent was obtained from the study participants after explaining the purpose of the study. 60 samples were selected by using simple random sampling method 30 in experimental group and 30 in control group. 4 to 6 samples were selected per day and they were assigned for both experimental and control group by tossing a coin. Demographic variables were collected and Pre test was conducted on the first day for both experimental group and control group. The pain was assessed by using Short Form McGill Pain Questionnaire and wound healing by using REEDA scale. Then the intervention of infrared rays was given once every morning for 10 minutes for four days and sitz bath was given once every evening for four days in experimental group. Then the post test level of pain and wound healing was assessed on the fifth day by using Short Form-McGILL pain questionnaire and REEDA scale for both groups. The data were analyzed and tabulated using descriptive and inferential statistics.

PLAN FOR DATA ANALYSIS

The collected data was analyzed by using descriptive and inferential statistics. The statistical methods will be used are as follows:

S. No	Data analysis	Method	Objectives
1.	Descriptive statistics	Frequency, Percentage	To assess the pre test and post test level of pain and wound healing among mothers in experimental group.
2.	Inferential statistics	Frequency, Percentage	To assess the pre test and post test level of pain and wound healing among mothers in control group
		Paired 't' test	To compare the pre test and post test level of pain and wound healing among mothers in experimental group.
		Paired 't' test	To compare the pre test and post test level of pain and wound healing among mothers in control group.
		Independent 't' test	To compare the post test level of pain among mothers between experimental group and control group.
		Independent 't' test	To compare the post test level of wound healing among mothers between experimental group and control group.
		Chi square test	To find the association between post test level of pain and wound healing among mothers in experimental group with their demographic variables.

PROTECTION OF HUMAN SUBJECTS

The proposed study was conducted after the approval of dissertation committee. Written permission was obtained from medical officer and nursing superintendent of selected hospital, Tirupur. Oral consent was obtained from each selected sample by explaining the purpose of the study before collecting the data and assessing the pain level and wound healing. Assurance was given to them that confidentiality was maintained throughout the study.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretations of the data collected to evaluate the effectiveness of sitz bath and infra red rays in reduction of episiotomy pain and wound healing among primi post natal mothers who were admitted in postnatal ward, in a selected hospital Tirupur. Data was collected from 60 primi postnatal mothers, were 30 mothers under experimental group and 30 mothers under control group by using scales. The data obtained were analyzed and presented under following headings.

ORGANIZATION OF DATA:

      The data has been tabulated and organized as follows:

SECTION A : To assess the demographic variables in primi postnatal mothers.

SECTION B : To assess the pre test and post test level of pain and wound healing among primi postnatal mothers in experimental group

SECTION C : To assess the pre test and post test level of pain and wound healing among primi postnatal mothers in control group.

SECTION D : To compare the pre test and post test level of pain and wound healing among primi postnatal mothers in experimental group.

SECTION E : To compare the pre test and post test level of pain and wound healing among primi postnatal mothers in control group.

SECTION F : To compare the post test level of pain among primi postnatal mothers between experimental group and control group

SECTION G : To compare the post test level of wound healing among primi postnatal mothers between experimental group and control group.

SECTION H : To find the association between post test level of pain among primi postnatal mothers in experimental group with their selected demographic variables.

SECTION I : To find the association between post test level of wound healing among mothers in experimental group with their selected demographic variables.

SECTION A: DISTRIBUTION OF DEMOGRAPHIC VARIABLES

TABLE 1:   Frequency and percentage distribution of demographic variables between experimental group and control group among primi postnatal mothers

n1 = 30, n2= 30

S. NO	DEMOGRAPHIC VARIABLES	EXPERIMENTAL GROUP		CONTROL GROUP	
		NO	%	NO	%
1	**Age (in Years)**				
1.1	18-25 yrs	11	37	15	50
1.2	26-30 yrs	14	47	7	23
1.3	31-35 yrs	5	16	8	27
2	**Education**				
2.1	No formal education	3	10	2	7
2.2	Primary education	11	37	4	13
2.3	High school	9	30	10	33
2.4	Higher secondary	7	23	14	47
3	**Occupation**				
3.1	House wife	9	30	11	37
3.2	Coolie	8	27	6	20
3.3	Private employee	12	40	13	43
3.4	Government employee	1	3	0	0
4	**Religion**				
4.1	Hindu	17	57	13	44
4.2	Muslim	6	20	10	33
4.3	Christian	7	23	7	23
4.4	others	0	0	0	0

5	**Income per month**				
5.1	Below 5000	8	27	11	37
5.2	Rs 5001-8000	14	46	6	20
5.3	Above 8000	8	27	13	43
6	**Type of family**				
6.1	Nuclear	13	43	19	63
6.2	Joint	17	57	11	37
7	**Residence**				
7.1	Rural	15	50	19	63
7.2	Urban	15	50	11	37

Table 1. shows the demographic variables among primi postnatal mothers in both experimental group and control group such as age, education, occupation, religion, income¸ type of family and residence.

Regarding age in experimental group, majority 14(47%) of primi mothers belonged to the age group of 26-31 years and 5(16%) belonged to age group of 31-35 Years. In control group majority of mothers 15(50%) belonged to the age group of 18-25 years and 7(23%) belonged to the age group of 31-35 years. (fig:2)

With regard to education in experimental group, majority of the mothers 11(37%) had primary education. In control group majority of mothers 14(47%) had higher secondary school education (fig:3)

Regarding occupation in experimental group, majority of the mothers 12(40%) were private employee and 1(3%) were coolie .In control group majority of the mothers 13(43%) were private employee and least 6(20%) were coolie workers. (fig:4)

Regarding religion in experimental group, majority of primi mothers 17(57%) were Hindu, and 6 (20%) were Muslims and 7(23%) were Christians. In control group, majority of primi mothers 13(43%) were Hindu, and the least 10(33%) were Muslims and 7(23%) were Christians. (fig:5)

In regard to income, in experimental group majority of mothers 14(47%) had income Rs 5001-8000. In control group majority of mothers 13(43%) were above 8000, and least 6 (20%) had income above 8000. (fig:6)

Regarding type of family, in experimental group majority of the primi mothers 17(57%) were in joint family and 13(43%) were in nuclear family. In control group majority of the primi mothers 19(63%) were in nuclear family and 11(37%) were in joint family (fig:7)

Regard to residence in experimental group 15(50%) were in urban area and 15(50%) were in rural area. In control group majority of the mother 19 (63%) were in rural area and 11 (37%) in urban area. (fig :8)
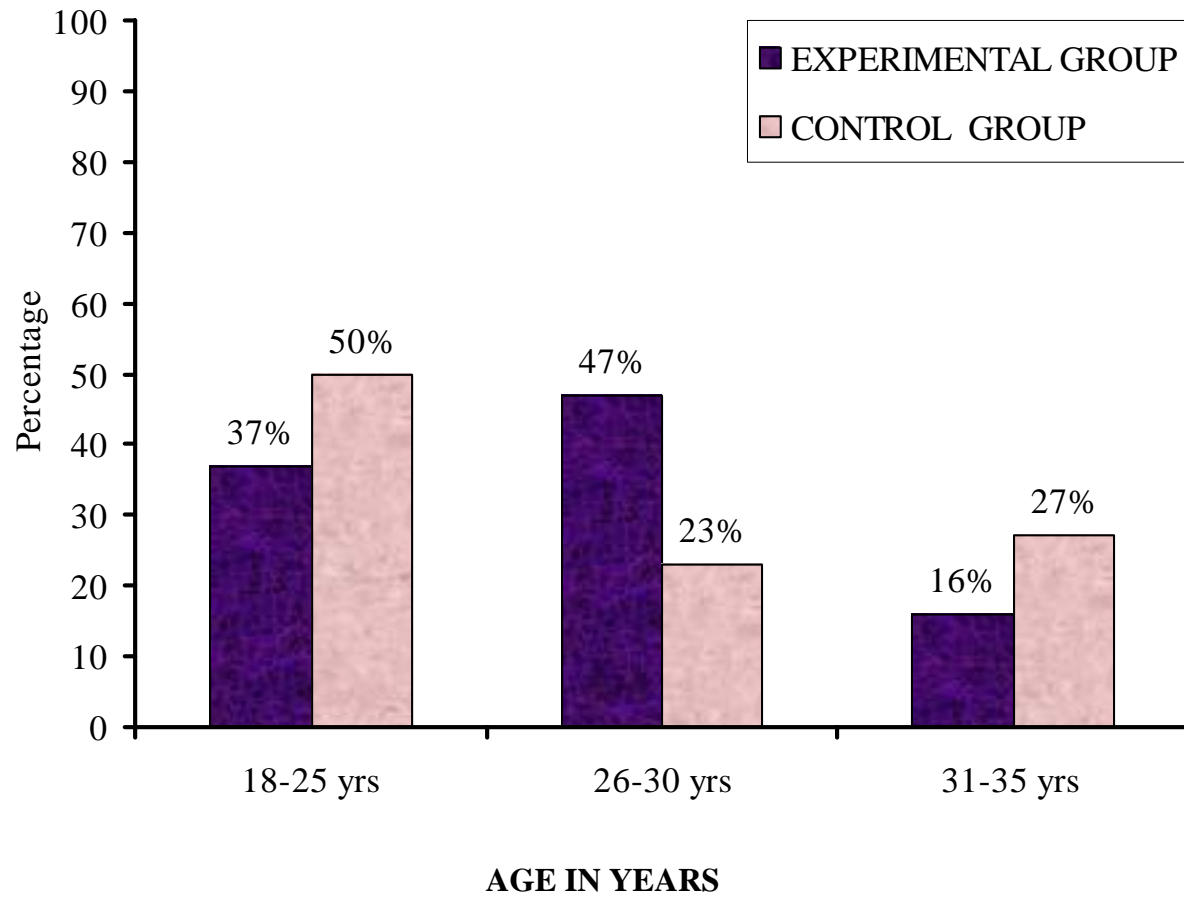
FIG 2: PERCENTAGE DISTRIBUTION OF AGE OF MOTHERS
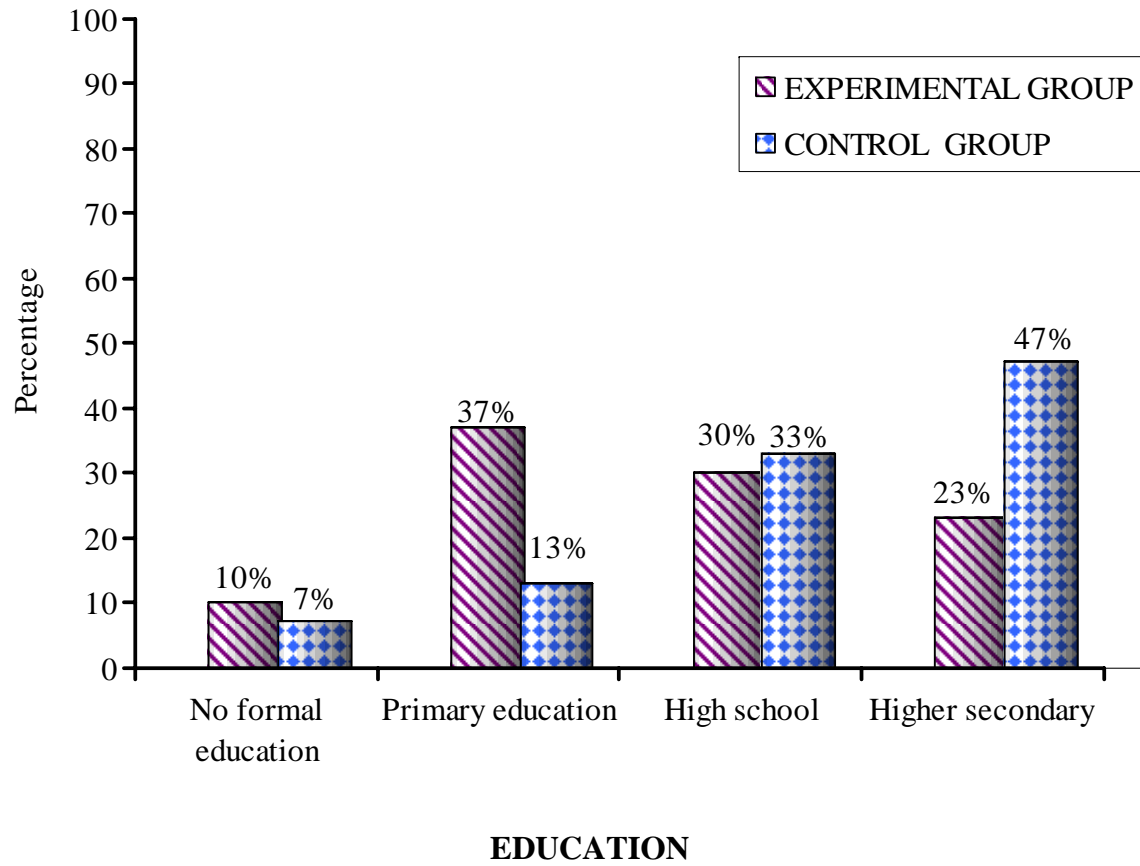
EDUCATION

FIG:3 PERCENTAGE DISTRIBUTION OF EDUCATION OF MOTHERS
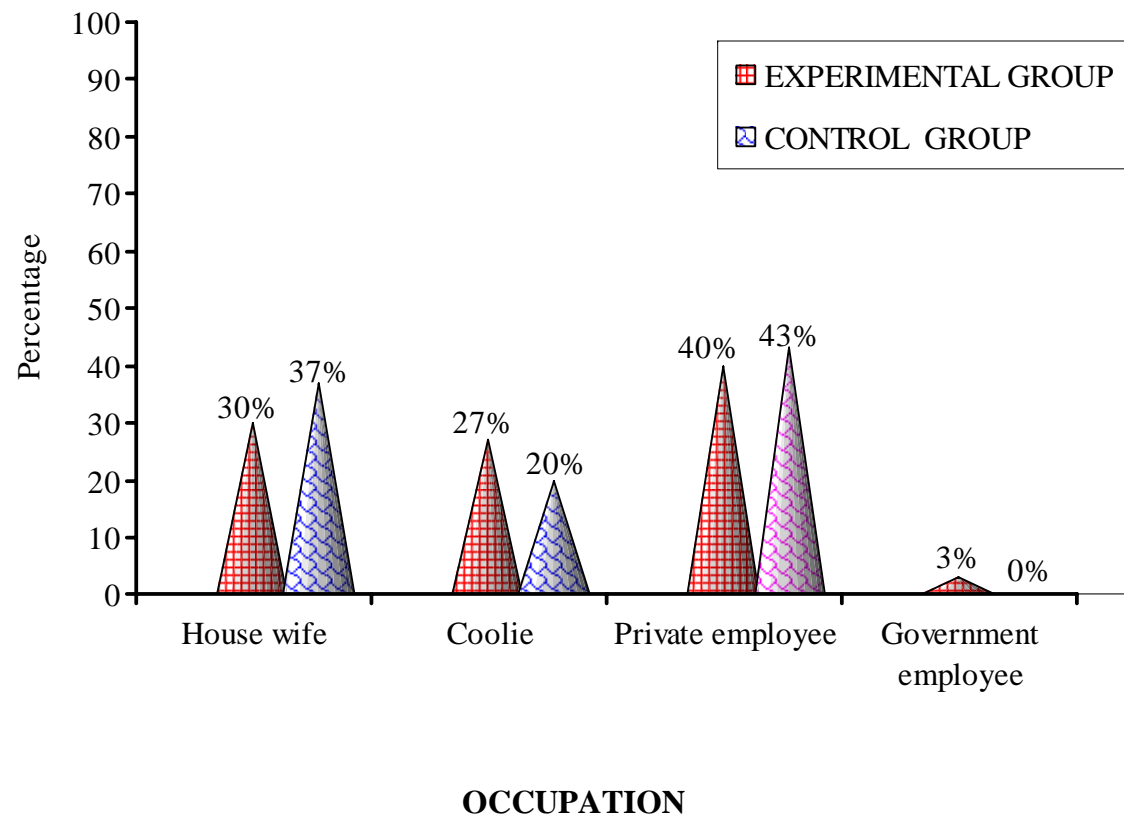
OCCUPATION

FIG: 4   PERCENTAGE DISTRIBUTION OF OCCUPATION IN MOTHERS
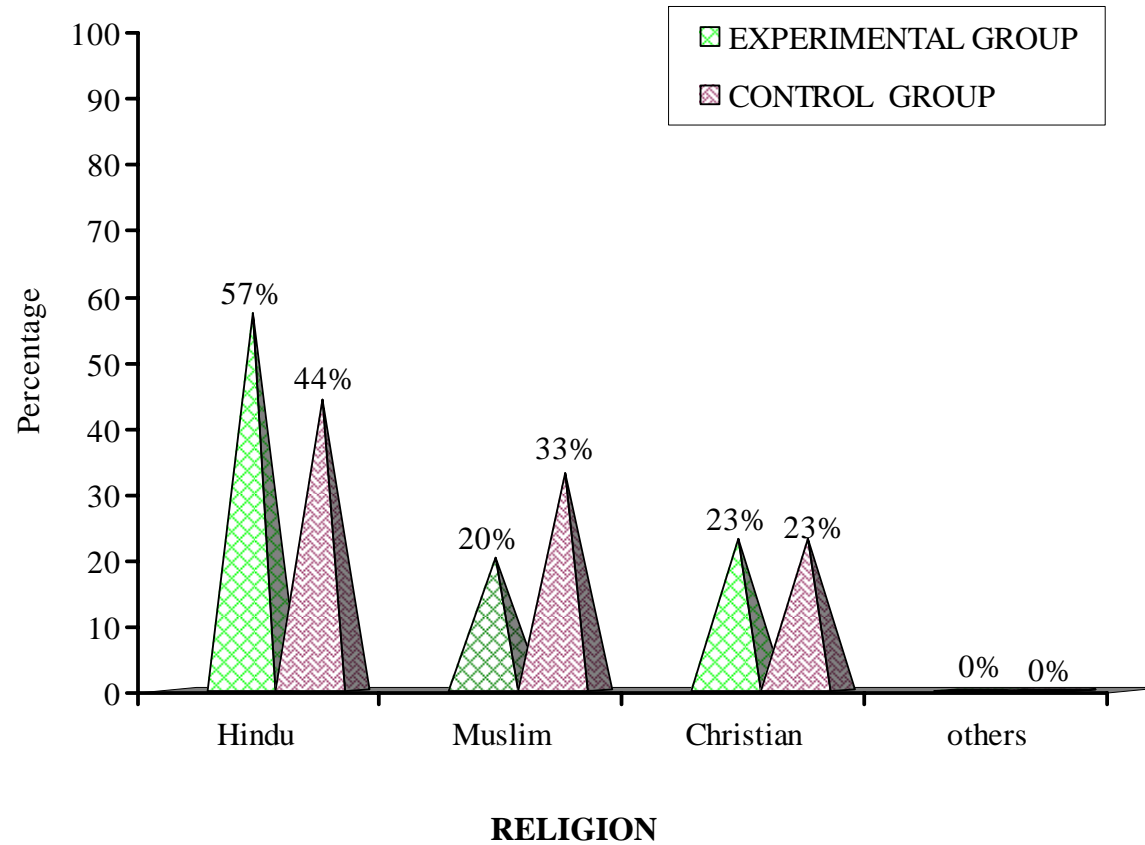
FIG 5: PERCENTAGE DISTRIBUTION ON RELIGION OF MOTHERS
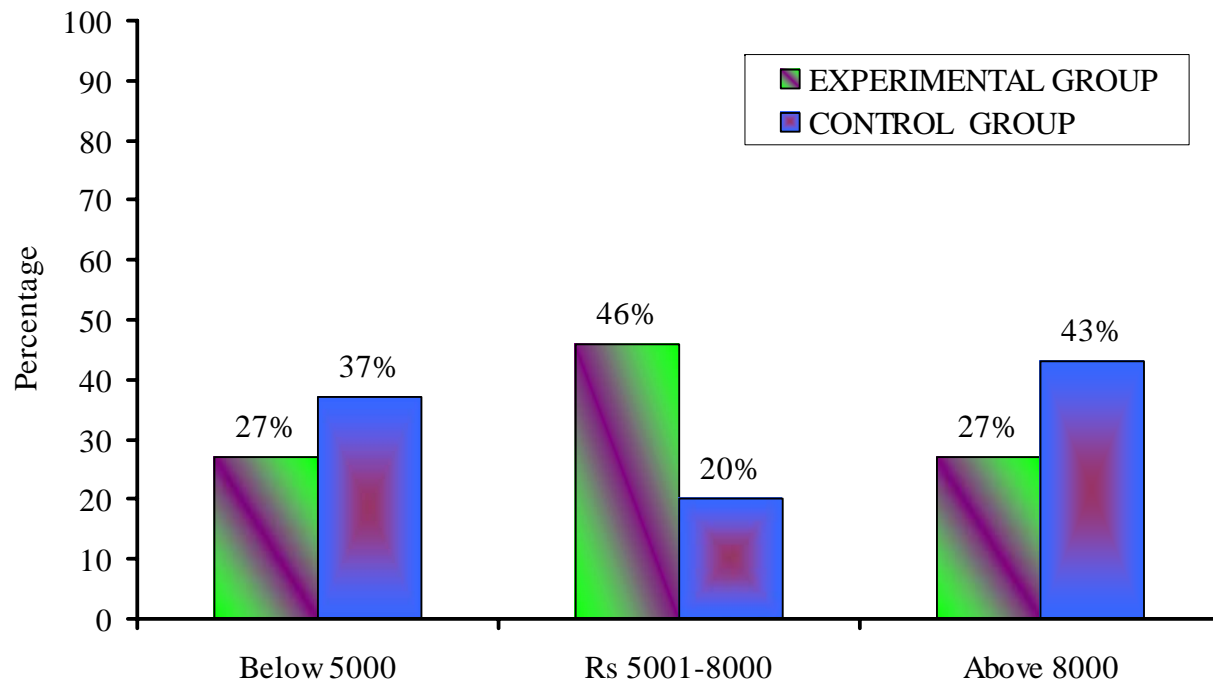
INCOME

FIG 6: PERCENTAGE DISTRIBUTION OF INCOME PER MONTH
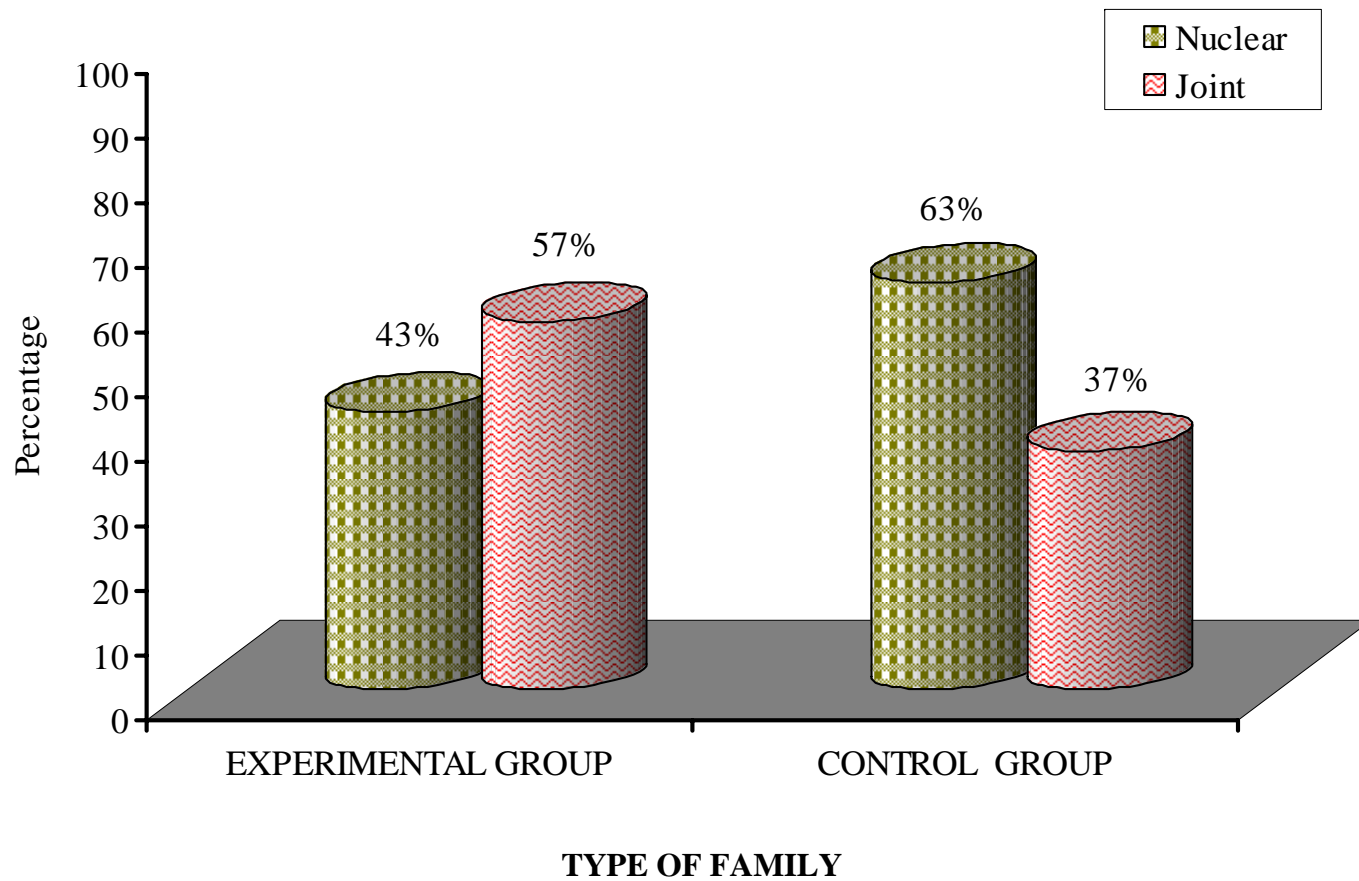
TYPE OF FAMILY

FIG 7: PERCENTAGE DISTRIBUTION ON TYPE OF FAMILY

53
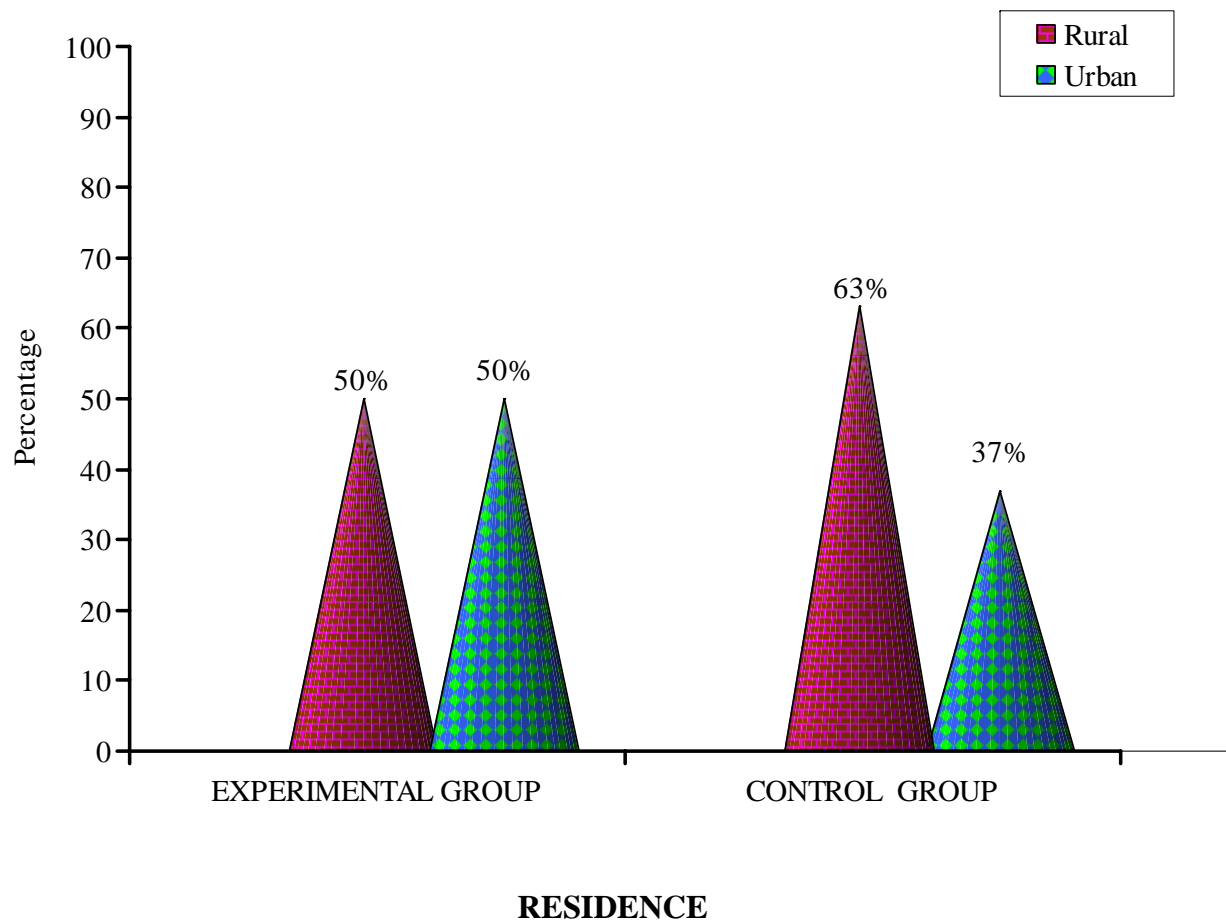
RESIDENCE

FIG 8: PERCENTAGE DISTRIBUTION ON RESIDENCE OF MOTHERS

SECTION B: **To assess the pre test and post test level of pain and wound healing among primi postnatal mothers in experimental group.**

TABLE 2: Frequency and percentage distribution of pre test and post test level of pain in experimental group

=30

CATEGRY OF PAIN	PRE TEST		POST TEST	
	NO	%	NO	%
No pain (0)	-	-	-	-
Very Mild Pain (1-9)	-	-	21	70
Mild Pain (10-19)	-	-	9	30
Moderate pain (20-29	7	23	-	-
Severe Pain (30-39)	22	74	-	-
Worst pain possible (40-49)	1	3	-	-

Table 2 depicts, 22 (74%) primi postnatal mothers in pre test had severe pain and in post test 21(70%) of primi mothers had very mild pain.
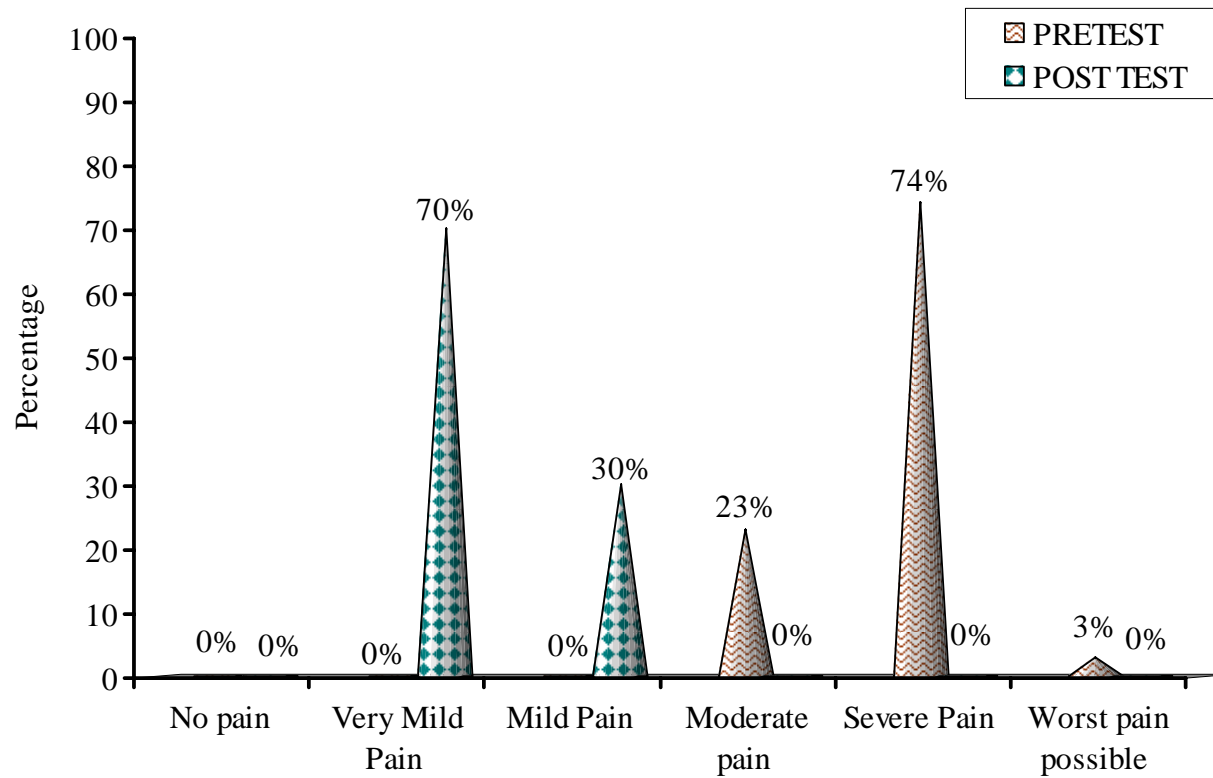
LEVEL OF PAIN IN EXPERIMENTAL GROUP

TABLE 3:   Frequency and percentage distribution of pre test and post test level of wound healing in experimental group

n=30

Level of infection	PRE TEST		POST TEST	
	NO	%	NO	%
No infection (0)	2	7	21	70
Mild infection(1-5)	27	90	9	30
Moderate infection(6-10)	1	3	-	-
Severe infection (11-15)	-	-	-	-

Table 3 depicts that in experimental group, 27(90%) primi mothers in pre test had mild infection. In the post test majority 21(70%) primi mothers had no infection and 9(30%) primi mothers had mild infection.
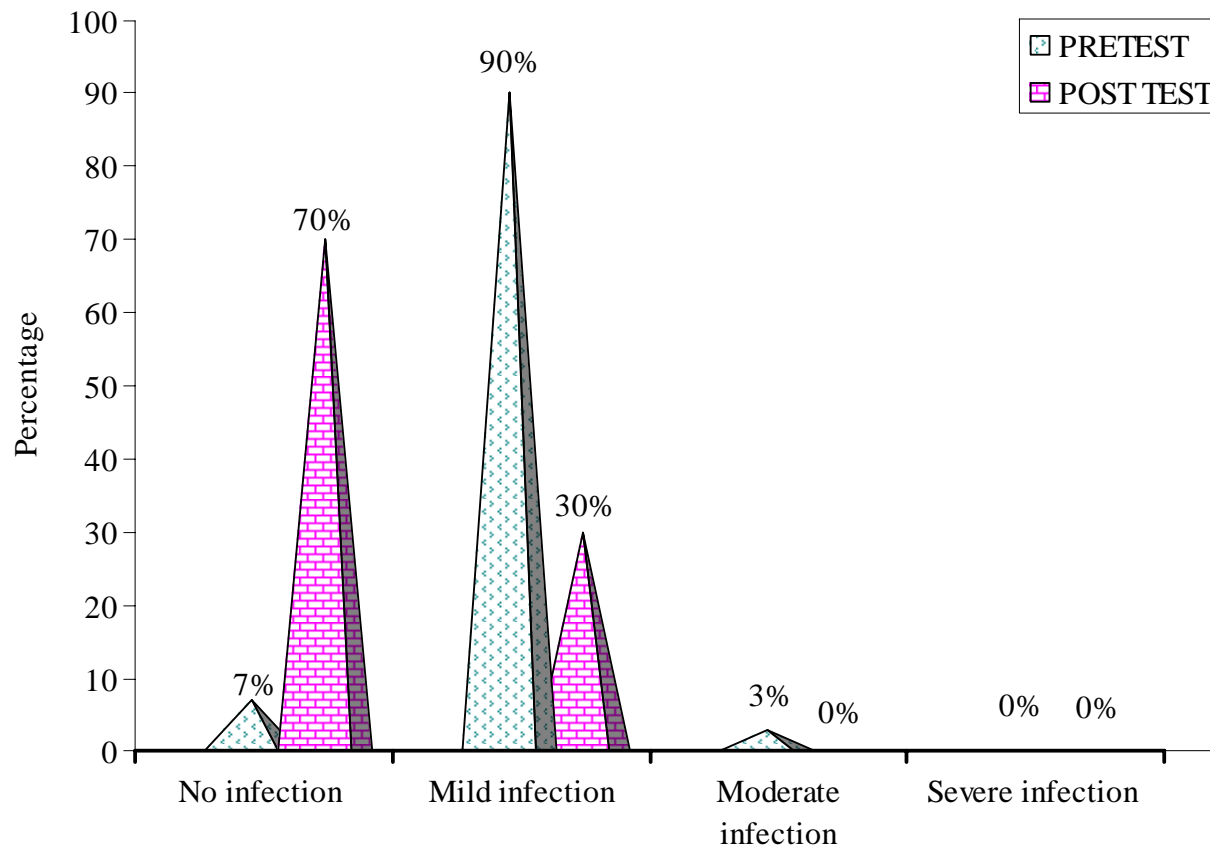
LEVEL OF WOUND HEALING IN EXPERIMENTAL GROUP

SECTION C: **To assess the pre test and post test level of pain and wound healing among primi postnatal mothers in control group.**

TABLE 4:   Frequency and percentage distribution of pre test and post test level of pain in control group.

n=30

CATEGORY	PRE TEST		POST TEST	
OF PAIN	NO	%	NO	%
No pain (0)	-	-	-	-
Very Mild Pain (1-9)	-	-	-	-
Mild Pain (10-19)	1	3	23	77
Moderate pain (20-29)	10	33	6	20
Severe Pain (30-39)	19	64	1	3
Worst pain possible	-	-	-	-

Table 4 depicts that in control group, 19(63.4%) primi mothers had severe pain in pre test and in the post test, 23(76.7%) of primi mothers had mild pain and 6(20%) of them had moderate pain.

LEVEL OF PAIN IN CONTROL GROUP
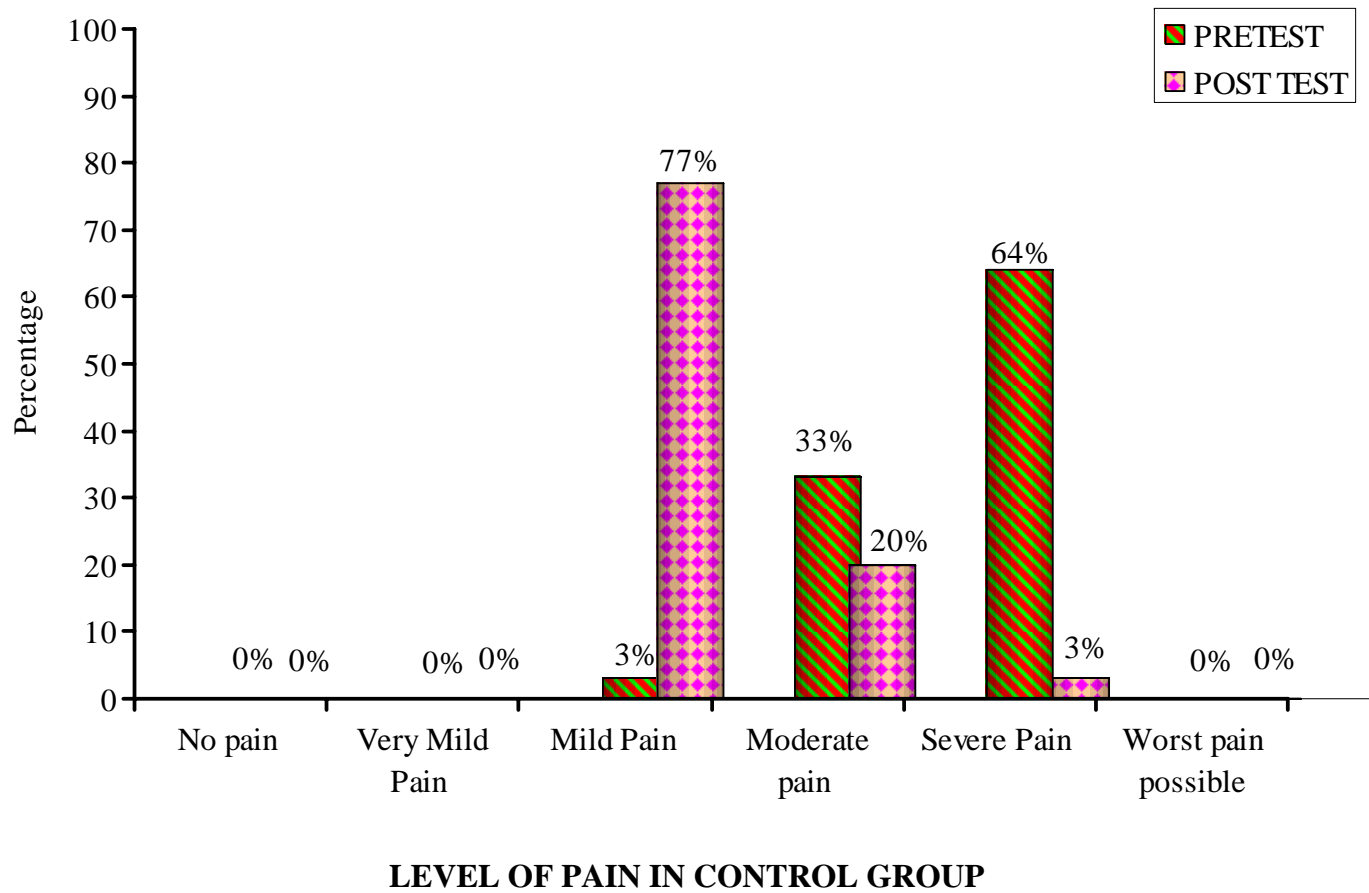
TABLE 5:   Frequency and percentage distribution of pre test and post test level of wound healing in control group.

n=30

Level of infection	PRE TEST		POST TEST	
	NO	%	NO	%
No infection (0)	-	-	-	-
Mild infection(1-5)	30	100	30	100
Moderate infection (6-10)	-	-	-	-
Severe infection (11-15)	-	-	-	-

Table 5 depicts that in control group, 30(100%) primi mothers in pre test had mild infection. In the post test majority 30(100%) of primi mothers had mild infection.
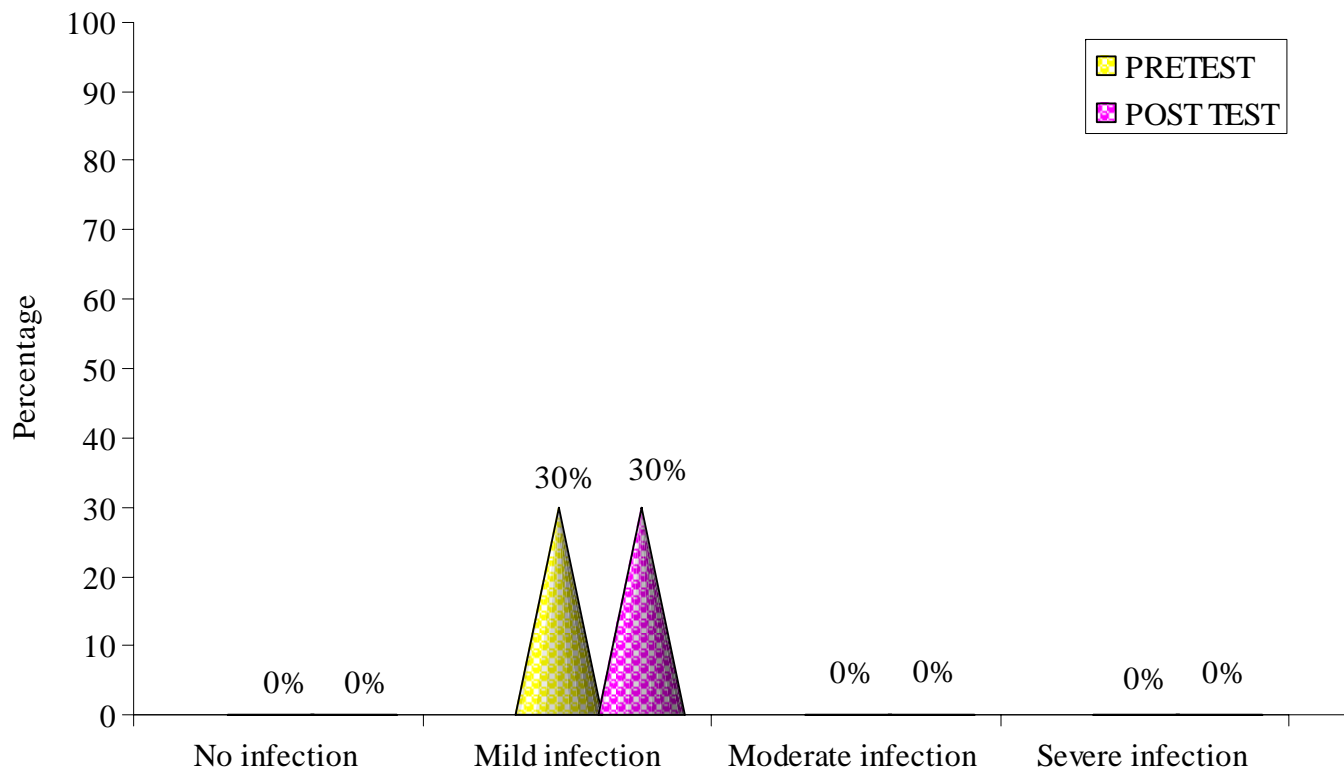
LEVEL OF WOUND HEALING IN CONTROL GROUP

SECTION D: **To compare the pre test and post test level of pain and wound healing among primi postnatal mothers in experimental group.**

TABLE 6: Comparison of Mean, standard deviation and paired 't' value between pre test and post test level of episiotomy pain in experimental group

n=30

GROUP	PRE TEST		POST TEST		Mean difference	Paired 't' value	Table value
	Mean	SD	Mean	SD			
Experimental Group	32.7	4.25	7.9	2.9	24.8	27.5	2.0451

df= 29   Significant *   p<0.05

The table 6 depicts the mean score, Standard deviation and paired 't' value in experimental group. The post test score 7.9(SD±2.9) is lower than the pretest mean score 32.7(SD±4.25) and the mean difference is 24.8. The paired 't' value was 27.5 (table value= 2.045) which is significant at P< 0.05 level. The findings reveal that there is a significant reduction in the level of pain in post test in experimental group.

TABLE 7: **Comparision of Mean, standard deviation and paired 't' value between pre test and post test level wound healing in experimental group.**

n= 30

GROUP	PRE TEST		POST TEST		Mean difference	paired 't' value	Table value
	Mean	SD	Mean	SD			
Experimental Group	2.7	1.34	0.33	0.54	1.62	8.51	2.045

df= 29   Significant*   p<0.05

The table 7 depicts the mean score, Standard deviation and paired 't' value in experimental group. The post test score $0.33(SD\pm0.54)$ is lower than the pretest mean score $2.7(SD\pm1.34)$ and the mean difference is 1.62. The paired't' value was 8.51 (table value= 2.045) which is significant at P< 0.05 level. The findings reveal that there is a significant reduction in rate of infection in post test in experimental group.

SECTION E: **To compare the pre test and post test level of pain and wound healing among primi postnatal mothers in control group.**

TABLE 8:   Comparison of Mean, standard deviation and paired 't' value between pre test and post test level of pain control group.

n= 30

GROUP	PRE TEST		POST TEST		Mean difference	paired 't' value	Table value
	Mean	SD	Mean	SD			
control Group	31.36	3.24	16.76	3.42	14.6	13.1	2.045

df=29 Significant *   P<0.05

The table 8 depicts the mean score, Standard deviation and paired 't' value in control group. The post test score 16.76(SD±3.42) is lower than the pretest mean score 31.36(SD±3.24) and the mean difference is 14.6. The paired't' value was 13.1 (table value= 2.045) which is significant at P< 0.05 level. The findings reveal that there is a significant reduction in the level of pain in post test in control group.

TABLE 9: Comparision of Mean, standard deviation and paired 't' value between pre test and post test level wound healing in control group.

GROUP	PRE TEST		POST TEST		Mean difference	paired 't' value	Table value
	Mean	**SD**	**Mean**	**SD**			
control Group	2.76	.85	2.06	1.08	0.64	3.19	2.045

df= 29   Significant *   p<0.05

The table 9 depicts the mean score, Standard deviation and paired 't' value in control group. The post test score 2.06(SD±1.08) is lower than the pretest mean score 2.76(SD±0.85) and the mean difference is 0.64. The paired't' value was 3.19 (table value= 2.045) which is significant at P< 0.05 level. The findings reveal that there is a significant wound healing in control group.

SECTION F: **To compare the post test level of pain, among primi mothers of experimental and control group**

TABLE 10: Comparison of Mean, standard deviation and independent 't' value of post test level of pain between control group and experimental group.

n1=30,n2=30

VARIABLE	Experimental group		control group		Mean difference	Independent 't' value	Table value
	Mean	SD	Mean	SD			
Episiotomy pain	7.9	2.9	16.76	3.42	.54	11.1	2.001

df=58   Significant*   (P<0.05)

The table 10 depicts that the mean post test score of pain in the experimental group 7.9(SD±2.9) was significantly lower than the mean post test score pain in control group 16.76 (SD±3.42) and the mean difference is .54. Independent 't' value was 11.1 (table value= 2.001) which is significant at P< 0.05. The findings reveal that there is a significant reduction in the level of pain in experimental group than control group.

SECTION G: **To compare the post test level of wound healing, among primi mothers of experimental and control group.**

TABLE 11: Comparison of Mean, S D and independent 't' value of post test level of wound healing between control group and experimental group.

n1=30, n2=30

VARIABLE	Experimental Group		control group		Mean difference	Independent 't' value	Table value
	Mean	SD	Mean	SD			
wound healing	.33	.54	2.06	1.08	2.33	7.6	2.0017

df=58   Significant*   (P< 0.05)

The table 11 depicts that the mean post test score of wound healing in the experimental group .33(SD±.54) was significantly lower than the mean post test score pain in control group 2.06(SD±1.08) and the mean difference is 2.33. Independent 't' value was 7.6 (table value= 2.001) which is significant at P< 0.05. The findings reveal that there is a significant wound healing in experimental group than control group.

SECTION –H: **ASSOCIATION OF THE LEVEL OF PAIN AMONG PRIMI POSTNATAL MOTHERS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES IN EXPERIMENTAL GROUP.**

Table 12: association between post test level of pain among mothers in experimental group with their demographic variables.

n=30

S. No	Demographic variables	No pain		Very mild pain		Mild pain		Moderate pain		Severe pain		Worst pain possible		χ^2	Table value	Inference
		F	%	F	%	F	%	F	%	F	%	F	%			
1.	**Age in years**															
	a)18-25	0	-	8	27	3	10	0	-	0	-	0	-		5.99	
	b)26-30	0	-	10	33	4	13	0	-	0	-	0	-	14.1	df= 2	S
	c)31-35	0	-	3	10	2	7	0	-	0	-	0	-			
2.	Education															
	a)No formal	0	-	2	7	1	3	0	-	0	-	0	-			
	b)Primary	0	-	8	27	3	10	0	-	0	-	0	-			
	c)High school	0	-	7	23	2	7	0	-	0	-	0	-	5.409	7.82 df=3	NS
	d)Higher secondary	0	-	4	13	3	10	0	-	0	-	0	-			
3.	Occupation															
	a)House wife	0	-	6	20	3	10	0	-	0	-	0	-	3.002	7.82	NS
	b)Coolie	0	-	6	20	2	7	0	-	0	-	0	-		df= 3	
	c)Private	0	-	9	30	3	10	0	-	0	-	0	-			
	d)Government	0	-	0	-	1	3	0	-	0	-	0	-			

No.	Variable												Calculated	Table value	Remark
4.	Religion														
	a)Hindu	0	-	9	30	8	27	0	-	0	-	0	-		7.82	
	b)Muslim	0	-	6	20	0	-	0	-	0	-	0	-	3.938	df=3	NS
	c)Christian	0	-	6	20	1	3	0	-	0	-	0	-			
	d)Others	0	-	0	-	0	-	0	-	0	-	0	-			
5.	Income\year														
	a)Below 5000	0	-	4	13	4	13	0	-	0	-	0	-		5.99	
	b)Rs.50018000	0	-	12	40	2	7	0	-	0	-	0	-	11.07	df=2	S
	c)Above 8000	0	-	5	17	3	10	0	-	0	-	0	-			
6.	Type of family														
	a)Nuclear	0	-	7	23	6	20	0	-	0	-	0	-	2.844	3.84	NS
	b)Joint	0	-	14	47	3	10	0	-	0	-	0	-		df=1	
7.	Residence														
	a)Rural	0	-	10	33	5	17	0	-	0	-	0	-	0.914	3.84	NS
	b)Urban	0	-	11	37	4	13	0	-	0	-	0	-		df=1	

S-Significant   NS-Non Significant

Chi-square was calculated to find out the association between the levels of episiotomy pain with their selected demographic variables in experimental group. Age of mother (χ^2=14.1) and income of the family (χ^2=11.01) had association with level of pain at (P < 0.05) level of significance in experimental group.

SECTION –I: **ASSOCIATION OF THE LEVEL OF WOUND HEALING AMONG PRIMI POSTNATAL MOTHERS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES IN EXPERIMENTAL GROUP.**

Table 13: Association between post test level of wound healing among mothers in experimental group with their demographic variables.

n=30

S. No	Demographic variables	No infection		Mild infection		Moderate infection		Severe infection		χ^2	Table value	inference
		F	%	F	%	F	%	F	%			
1.	**Age in years**									1.54	5.99	NS
	a) 18-25	9	30	2	7	-	-	-	-		df=2	
	b) 26-30	9	30	5	16	-	-	-	-			
	c) 31-35	3	10	2	7	-	-	-	-			
2.	**Education**											
	a)No formal	3	10	-	0	-	-	-	-		7.82	
	b)Primary	9	30	2	7	-	-	-	-	15.5	df=3	S
	c)High school	4	14	5	16	-	-	-	-			
	d)Higher secondary	5	16	2	7	-	-	-	-			
3.	**Occupation**									5.47	7.82	NS
	a)House wife	9	30	-	-	-	-	-	-		df=3	
	b)Coolie	6	20	2	7	-	-	-	-			
	c)Private	6	20	6	20	-	-	-	-			
	d)Government	-	-	1	3	-	-	-	-			

											Calc	Table	
4.	**Religion**												
	a)Hindu	13	43	4	13	-	-	-	-			7.82	
	b)Muslim	5	17	1	4	-	-	-	-		3.15	df=3	NS
	c)Christian	3	10	4	13	-	-	-	-				
	d)Others	-	-	-	-	-	-	-	-				
5.	**Income\year**												
	a)Below 5000	6	20	2	7	-	-	-	-			5.99	
	b)Rs.50018000	10	33	4	13	-	-	-	-		13.9	df=2	S
	c)Above 8000	5	17	3	10	-	-	-	-				
6.	**Type of family**												
	a)Nuclear	9	30	4	13	-	-	-	-		12.0	3.84	S
	b)Joint	12	40	5	17	-	-	-	-			df=1	
7.	Residence												
	a)Rural	10	33	5	17	-	-	-	-		.156	3.84	NS
	b)Urban	11	37	4	13	-	-	-	-			df=2	

NS S-significant   NS- Non significant

Chi-square was calculated to find out the association between wound healing with their selected demographic variables in experimental group.

Significant association was found between levels of wound healing in relation to education ($\chi^{2=}$ 15.5) monthly income (χ^2=13.9), and type of the family(χ^2=12.05), at (P < 0.05) level of significance

CHAPTER V
DISCUSSION

The discussion chapter deals with sample characteristics and objectives of the study. The aim of this present study was to evaluate the effectiveness of sitz bath and infra red rays on of episiotomy pain and wound healing among primi postnatal mothers in a selected hospital, Tirupur.

Distribution of demographic variables in primi postnatal mothers:

Regarding age in experimental group, majority 14(47%) of primi mother's belonged to the age group of 26-31 years and 5(16%) belonged to age group of 31-35 Years. In control group majority 15(50%) of mothers belonged to the age group of 18-25 years and 7(23%) belonged to the age group of 31-35 years.

With regard to education in experimental group, majority 11(37%) of the mothers were in primary education. In control group majority 14(47%) of mothers were in higher secondary school education

Regarding occupation in experimental group, majority 12(40%) of the mothers were private employee and 1(3%) were coolie .In control group majority 13(43%) of the mothers were private employee and 6(20%) were coolie workers. Regarding religion in experimental group, majority 17(57%) of primi mothers were Hindu, and 6 (20%) were Muslim and 7(23%) were Christians. In control group, majority 13(43%) of primi mothers were Hindu, and 10(34%) were Muslims and 7(23%) were Christians.

In regard to income, in experimental group majority 14(47%) of mothers were in Rs 5001-8000. In control group majority 13(43%) of mothers were above 8000, and 6 (20%) were above 8000.

Regarding type of family, in experimental group majority 17(57%) of the primi mothers were in joint family and 13(43%) were in nuclear family. In control group majority 19(63%) of the primi mothers were in nuclear family and 11(37%) were in joint family

Regard to residence in experimental group 15(50%) were in urban area and 15(50%) were in rural area. In control group majority 19 (63%) of the mother were in rural area and 11 (37%) in urban area.

The findings of the study are discussed according to the objectives as follows.

OBJECTIVE 1: Assess the pre test and post test level of episiotomy pain and wound healing among primi postnatal mothers in experimental group.

Episiotomy pain, in pretest 22(74%) primi postnatal mothers had severe pain and in post test all 21(70%) of primi mothers had very mild pain.

With regard to wound healing, in pre test level of infection 27(90%) primi mothers had mild infection, 2(7%) had no infection and 1(3%) had moderate infection. In the post test majority 21(70%) primi mothers had no infection and 9(30%) primi mothers had mild infection.

OBJECTIVE 2: Assess the pre test and post test level of episiotomy pain and wound healing among primi mothers in control group.

Pre test level of episiotomy pain in control group, 19(64%) primi mothers had severe pain and in post test 23(77%) primi mothers had mild pain and 6(20%) of them had moderate pain.

With regard to pre test level of wound healing in control group, 30(100%) primi mothers had mild infection. In the post test, majority 30(100%) primi mothers had mild infection.

OBJECTIVE 3: compare the pre test and post test level of pain and wound healing among primi postnatal mothers in experimental group.

a)   Compare the pre test and post test level of pain among primi postnatal mothers in experimental group.

In episiotomy pain, the lowest mean score which is 7.9(SD±2.9) was obtained in post test when compared to the mean score 32.7(SD±4.25) of pre test. The paired 't' value for experimental group was 27.5 (table value= 2.045) at P< 0.05 level of significance. The study result shows that there is a significant reduction of pain in post test compared to pre test.

The study findings were consistent with the findings of **Lakshmi M.,(2008)** performed to investigate the effectiveness of infra red rays and sitz bath in reduction of episiotomy pain in postnatal mothers. The findings of the study shows that, in unpaired 't' test the calculated value is 2.82 is more than the table value 1.701. The above result indicates mothers who have undergone the treatment of infer red therapy expressed decreased pain intensity. Hence the research hypothesis H1: The mean post test score on episiotomy pain is significantly lower than the mean pre test score among mothers in experimental group, was accepted.

b) Compare the pre test and post test level of wound healing among primi postnatal mothers in experimental group

In wound healing level, the lowest mean score 0.33(SD±0.54) was obtained in post test when compared to the mean score 2.7(SD±1.34) of pre test. The paired 't' value for experimental group was 8.51 (table value= 2.045) at P< 0.05 level of significance. The study result shows that there is a significant wound healing in post test compared to pre test.

The study findings were consistent with the findings of **Vimiji M.,(2008)** performed to investigate the effectiveness of infra red rays in healing of episiotomy wound in postnatal mothers. The findings of the study shows that 75% of the mothers had adequate wound healing and 25% of mothers shown poor wound healing in post test of experimental group. In pre test 70% of them had poor wound healing. Analysis reveals there was a significant difference between the mean wound healing score of the postnatal mothers in the pre test and post test. Hence the research hypothesis H2: The mean post test score on wound healing is significantly lower than the mean pre test score among mothers in experimental group, was accepted.

OBJECTIVE 4: Compare the pre test and post test level episiotomy pain and wound healing among primi mothers in and control group.

In control group pain score, the lowest mean score which is 16.76(SD±3.42) was obtained in post test when compared to the mean score 31.3(SD±3.24) of pre test . The paired 't' value for control group was 13.1 (table value= 2.045) at P< 0.05 level of significance. In control group wound healing score, the lowest mean score which is 2.06(SD±1.08) was obtained in post test when compared to the mean score 2.76(SD±.85) of pre test. The paired 't' value for experimental group was 3.196 (table value= 2.045) at P< 0.05 level of significance.

OBJECTIVE 5: Compare the post test level of pain, among primi mothers of experimental and control group

Among both groups pain in the experimental group 7.9(SD±2.85) was significantly lower than the mean post test level of pain in control group 16.7(SD±3.97). Independent 't' value was 11.1 (table value= 2.0017) at P< 0.05 level of significance shows that there is a significant reduction in the level of pain between experimental group and control group.

The study findings were consistent with the findings of Dhanalakshmi.,(2008) performed to investigate the effectiveness of infra red rays and sitz bath in reduction of pain in postnatal mothers. The finding of study shows that, 80% of participants in control group and 76% of the participants in experimental group had moderate pain in observation I. After intervention, 21% of them from control group and 80% of participants from experimental group had mild pain in observation II. The calculated 't' value (2.82) was greater than the expected value of 't'(1.96). The result shows that there is a significant reduction in pain after infra red rays and sitz bath in experimental group than control group. Hence the hypothesis H3: The mean post test score of episiotomy pain in experimental group is significantly lower than the mean post test score of control group, was accepted.

OBJECTIVE 6: compare the post test level of wound healing, among primi mothers of experimental and control group.

The mean post test score of wound healing in the experimental group .33(SD±.54) was significantly lower than the mean post test level of wound healing in control group 2.66(SD±1.51). Independent 't' value was 7.6 (table value= 2.001) at P< 0.05 level of significance shows that there is a significant

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reduction in the level of wound healing between experimental group and control group.

The study findings were consistent with the findings of Seena.M.,(2008) performed to investigate the effectiveness of infra red rays in wound healing in postnatal mothers. After intervention, 10% of them from control group developed mild infection and none of participants from experimental group had infection in observation II. The result shows that there is a significant wound healing after infra red rays in experimental group than control group. The calculated 't' value (4.05) was greater than the expected value of 't'(1.96).

Hence the hypothesis H4: The mean post test score of wound healing in experimental group is significantly lower than the mean post test score of control group, was accepted.

OBJECTIVE 7: association of the level of pain among primi postnatal mothers with their selected demographic variables in experimental group.

The findings of the study shows there was a significant association between levels of episiotomy pain when compared to age of mother ($\chi^2 = 14.4$) and income of the family ($\chi^2 = 11.07$)at ($P < 0.05$) in experimental group

The study findings were consistent with the findings of Latha P.,(2008), in which age of the mother, education, occupation, family income, type of episiotomy has significant association with demographic variables and pain in experimental group. Hence the hypothesis H5: There will be significant association between post test score of episiotomy pain among mothers in experimental group with their selected demographic variable, was rejected except for age and income.

OBJECTIVE –8: **association of the level of wound healing among primi postnatal mothers with their demographic variables in experimental group.**

The finding of the study shows there was significant association between levels of wound healing when compared to education ($\chi^{2=}15.5$), monthly income ($\chi^{2=}13.9$) and type of family ($\chi^{2=}12.0$)χ at ($P < 0.05$) in experimental group.

The study findings were consistent with the findings of **Perdita M.,(2008),** in which age of the mother, education, occupation, family income, type of episiotomy has no significant association with demographic variables and pain in experimental group.

Hence the hypothesis H6: There will be significant association between post test score of wound healing among mothers in experimental group with their selected demographic variable, was rejected except for education, income and type of family.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATIONS,
RECOMMENDATIONS AND LIMITATION

This chapter deals with:

- ➢ Summary of the study
- ➢ Conclusion
- ➢ Implications for nursing
- ➢ Recommendations
- ➢ Limitations

SUMMARY OF THE STUDY

The study was done to evaluate the effectiveness sitz bath and infra red rays in episiotomy pain and wound healing, among primi postnatal mothers.

The research approach used for the study was evaluative approach. The research design used for this study was true experimental research design. The study was conducted at selected Hospital, Tirupur. Conceptual frame work adopted in the present study was modified "Kings Goal Attainment Model". The sample size was sixty primi postnatal mothers undergone episiotomy, thirty in experimental group and thirty in control group. The samples were selected by simple random sampling technique and were assessed for the level of episiotomy pain and wound healing during postnatal period using the following scales.

"Short Form Mc Gill Pain Questionnaire" was used to measure the level of episiotomy pain and "REEDA Scale" was used to measure the level of wound healing. The investigator selected the mothers who met inclusion criteria by using simple random sampling and pre test was done for both experimental group and control group. Then the intervention of infrared rays was given once a day every

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morning for 10 minutes for four days and sitz bath was given once a day every evening for four days in experimental group. Then the post test level of pain and healing was assessed fifth day morning by using Short Form-McGILL Pain Questionnaire and REEDA scale for both groups. The data was analyzed and tabulated using descriptive and inferential statistics.

MAJOR FINDINGS OF THE STUDY

Distribution of demographic characteristics of the primi postnatal Mother's in experimental group.

➤ Majority (47%) of the primi postnatal mothers belong to the age group of <25 years.

➤ Majority (37%) of the primi postnatal mothers had primary education.

➤ Majority (40%) of the primi mothers were private employees.

➤ Highest (57%) percentage of the primi mothers were belongs to Hindu religion.

➤ Majority (47%) of the primi mothers were getting Rs.5000/- -Rs.8000/- as a monthly income.

➤ Highest percentage (57%) of the primi mothers were from joint family.

➤ 50% of mothers are from rural area and 50% from urban area.

Distribution of demographic characteristics of the primi mothers in control group.

➤ Majority (50%) of the primi postnatal mothers belong to the age group of 18-25 years.

➤ Majority (47%) of the primi postnatal mothers had higher secondary education.

➤ Majority (43%) of the primi mothers were private employees.

➤ Highest (43%) percentage of the primi mothers were belong to Hindu religion.

➢ Majority (43%) of the primi mothers were getting more than Rs.8000/- as a monthly income.

➢ Highest percentage (63%) of the primi mothers were from nuclear family.

➢ 50% of mothers are from rural area and (63.3%) from urban area.

In experimental group the post test level of pain mean score, 7.9(SD±2.9) is lower than the pre test mean scoring 32.7(SD±4.25). The paired 't' value for experimental group was 27.5 (table value= 2.045) is significant at P< 0.05 level. In wound healing, the post test mean score .33(SD±.54) which is lower than the pre test mean score 2.7(SD±1.34). The paired 't' value for experimental group was 8.51 (table value= 2.045) which is significant at P< 0.05 level. The study result shows that there is a significant reduction of pain and improved wound healing in post test compared to the pre test.

In control group the post test level of pain mean score 16.76(SD±3.42) which is lower than the pre test mean scoring 31.3 (SD±3.24). The paired 't' value for experimental group was 13.1 (table value= 2.045) which is significant at P< 0.05 level. In wound healing, the post test mean score 2.06(SD±1.08) which is lower than the pre test mean score 2.76(SD±.85). The paired 't' value for experimental group was 3.196 (table value= 2.045) which is significant at P< 0.05 level. The study result shows that there is a significant reduction of pain and improved wound healing in post test compared to the pre test.

The mean post test score of episiotomy pain in the experimental group 7.9(SD±2.85) was significantly lower than the mean post test level of episiotomy pain in control group 16.7(SD±3.97). Independent 't' value was 11.1 (table value= 2.0017) which is significant at P< 0.05 level, shows that there is a significant reduction in the level of episiotomy pain in experimental group and control group.

The mean post test score of wound healing in the experimental group .33(SD±.54) was significantly lower than the mean post test level of wound healing in control group (2.66±1.51). Independent 't' value was 7.6 (table value= 2.001) which is significant at P< 0.05 level, shows that there is a significant reduction in the level of wound healing in experimental group and control group

There was significant association between levels of episiotomy pain when compared to age ($\chi^{2=}$14.1)and income (χ^2=11.07) at(P < 0.05) level of significance in experimental group.

There was no significant association between levels of wound healing when compared to age, occupation, religion, and residence at (P < 0.05) level in experimental group. However, significant association was found between levels of wound healing in relation to education ($\chi^{2=}$ 15.5), monthly income ($\chi^{2=}$ 13.9), and type of the family ($\chi^{2=}$12.0), at (P < 0.05) level of significance in experimental group.

CONCLUSION

The present study was done to assess the effectiveness of infra red rays and sitz bath among primi postnatal mothers with episiotomy wound during postnatal period in selected hospital, Tirupur. Based on statistical findings, the post test score of pain in the experimental group 7.9(SD±2.9) was significantly lower than the mean post test score pain in control group 16.76 (SD±3.42). Independent 't' value was 11.1 (table value= 2.001) which is significant at P< 0.05. The findings reveal that there is a significant reduction in the level of pain in experimental group than control group.

The post test score of wound healing in the experimental group 33(SD±.54) was significantly lower than the mean post test score pain in control group

2.06(SD±1.08) and the mean difference is 2.33. Independent 't' value was 7.6 (table value= 2.001) which is significant at P< 0.05. The findings reveal that there is a significant wound healing in experimental group than control group.

IMPLICATIONS:

IMPLICATION FOR NURSING SERVICE

➢ The nurses can practice infra red rays and sitz bath along with routine perineal care in reducing the pain and improving the wound healing on postnatal mothers with episiotomy.

➢ Nurses as the change agent can introduce various preventive measures to prevent infection and to reduce pain on postnatal mothers with episiotomy.

IMPLICATIONS FOR NURSING EDUCATION

➢ The nurse educator can orient the students with alternative therapies in reducing bpain and promoting wound healing by infra red rays and sitz bath.

➢ The nurse educator can include information on infra red rays and sitz bath in the clinical rounds and clinical presentation.

➢ Nurse educator can conduct workshops on alternative therapies to update the knowledge and help students to provide effective care.

IMPLICATIONS FOR NURSING ADMINISTRATION:

➢ The nurse administrator should conduct in-service education to nursing personnel regarding other measures used for wound healing and reducing the pain in episiotomy wound.

➢ Workshops, seminars about the effectiveness of infra red rays and sitz bath and episiotomy wound can be made available to nursing staff in wards and nurse education in institute.

➢ Nurse administrators have the responsibility as creating awareness among primi postnatal mothers regarding the effectiveness of infra red rays and sitz bath by facilitating free distribution of pamphlet to the post natal wards.

➢ The nurse educator can provide in-service educations to nursing students to update their knowledge and practice using infrared rays and sitz bath among women in postnatal period with episiotomy wound.

IMPLICATIONS FOR NURSING RESEARCH

➢ The finding of this study can be effectively utilized by the emerging researchers for their reference purpose.

➢ The research study enhances the body of knowledge in nursing science.

RECOMMENDATIONS

❖ Similar study can be conducted for a large group.

❖ A comparative study can also be done between the effectiveness of various alternative therapies for episiotomy wound healing.

❖ A comparative study can be done among primi mothers and multi mothers.

LIMITATIONS

♦ Since it is a new procedure to most of the mothers the researcher found difficulty in making them to understand the merits.

♦ More privacy was needed to do the procedure.

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APPENDIX – A

BISHOP'S COLLEGE OF NURSING

(C.S.I. Trichy - Tanjore Diocese)
C.S.I. Mission Compound, **DHARAPURAM** - 638 656,
Tiruppur District.

☎ Off: 04258 - 221224 / 223962
Fax : 04258 221224
E - Mail; principalbcn@sify.com

Ref :

Date...............................

01.04.2011

To

The Medical Officer,
O/o of the Joint Director of Health Services,
Government Hospital,
Tiruppur.

Respected Sir,

  This is to certify that Ms. S. Shamlin Ninsha is a bonafide student of our college doing her M.Sc.,(Nursing) programme I year. As part of her requirement under, the Tamil Nadu Dr.MGR. Medical University, Chennai, she has to do a project on "A study to assess the effectiveness of sitz bath and infra red rays in reducing episiotomy pain and wound healing among post natal mothers in selected hospital, Tiruppur".

  Kindly permit her to carryout a study in your esteemed organization.

  Thanking you,

Fees Paid on 22.3.2011
DD·NO : 716268

Permitted
JWMO
7.4.11

Yours faithfully,

(Prof. Mrs. VIJAYA RANI PRINCE)
PRINCIPAL

PRINCIPAL
BISHOP'S COLLEGE OF NURSING,
C.S.I MISSION COMPOUND,
DHARAPURAM - 638 656,
TIRUPUR DISTRICT.

SUPERINDENDENT
Govt, District Head Quarter Hospital
TIRUPUR - 641 608

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APPENDIX – B

LETTER SEEKING EXPERT'S OPINION FOR VALIDITY OF TOOLS

From

Ms.S.Shamlin Ninsha,
M.Sc. (Nursing) II year,
Bishop's College of Nursing,
Dharapuram.

To

Respected Madam/Sir,

SUB: Requisition for content validity of tool

I am Ms .S. Shamlin Ninsha, M.Sc. (Nursing) second year student of Bishop's College of Nursing, Dharapuram, under Dr. M.G.R Medical University, Chennai. As a partial fulfillment of my M.Sc. (N) Degree Programme, I am conducting a research on "**A Study to assess the effectiveness of infra red rays and sitz bath on pain and wound healing among primi postnatal mothers in a selected hospital, Tirupur," "** One of the initial steps of the research study is to develop a tool. I am sending the above stated for content validity and for your expert and valuable opinion.

I will be very thankful to return it to the undersigned.

Yours sincerely,

(S.Shamlin Ninsha**)**

Encl;
1. Certificate of content validity.
2. Statement of problem, objectives, operational definition, hypothesis.
3. Description of the tool and tool for data collection.
4. Self addressed envelope.

APPENDIX – C

LIST OF EXPERTS IN VALIDATION

1) Dr. Mrs. S. Vijayalakshmi,M.A, M.Sc(N),Ph.D(N).,
   Principal,
   Vignesh Nursing College,
   Kizhanaikkari,
   Tiruvannamalai

2) Mrs.Padma,M.Sc(N).,
   Associate professor,
   Dhanvantri College of Nursing,
   Selam.

3) Mrs.K. Thilagavathi,M.Sc(N).,
   Associate professor,
   Shanmuga College of Nursing,
   Selam.

4) Dr.Mrs.Deivamathi, M.B.B.S, DGO,
   Obstetrician and Gynecologist,
   Nivetha hospital,
   Dharapuram.

APPENDIX – D

CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "**A study to evaluate the effectiveness of sitz bath and infra red rays on episiotomy pain and wound healing among primi postnatal mothers in a selected hospital Thirupur**" has been validated by me and found appropriate with mentioned suggestions.

Signature :

Name : **Dr. (Mrs.) S. VIJAYALAKSHMI,**
M.A.,M.Sc(N).,Ph.D(N).,
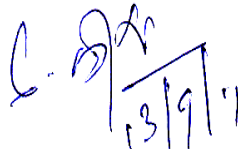
Designation :
PRINCIPAL,
Vignesh Nursing College,
Kizhanaikkarai,
College : **Tiruvannamalai - 606 603.**

CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "**A study to evaluate the effectiveness of sitz bath and infra red rays on episiotomy pain and wound healing among primi postnatal mothers in a selected hospital Thirupur**" has been validated by me and found appropriate with mentioned suggestions.

Signature :

Name : S. Padmavathi, M.sc(N).

Designation: Vice Principal.

College : Dhanvanthri college of Nursing. Erode.

CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "**A study to evaluate the effectiveness of sitz bath and infra red rays on episiotomy pain and wound healing among primi postnatal mothers in a selected hospital Thirupur**" has been validated by me and found appropriate with mentioned suggestions.

Signature : K. Thilagavathi

Name : K. THILAGAVATHI

Designation : READER

College : SHANMUGA COLLEGE OF NURSING SALEM

CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "**A study to evaluate the effectiveness of sitz bath and infra red rays on episiotomy pain and wound healing among primi postnatal mothers in a selected hospital Thirupur**" has been validated by me and found appropriate with mentioned suggestions.

Signature   :

Name   :

Dr.L.DEIVAMATHI, M.B.B.S.,D.G.O.,
Regd.No. : 54780
NIVETHA HOSPITAL
DHARAPURAM-638656.

Designation :

College   :

APPENDIX-E

CERTIFICATE OF ENGLISH EDITING

TO WHOM SOEVER IT MAY CONCERN

This is certify that the dissertation work, " **A Study to assess the effectiveness of infra red rays and sitz bath on pain and wound healing among primi postnatal mothers in a selected hospital, Tirupur,**" done by Miss.S. SHAMLIN NINSHA, II Year M.Sc (Nursing)student of Bishop's College of Nursing , Dharapuram is edited for English Language appropriateness by _____

Date   :

Address :

Signature

(P.SAMPATH)

P.SAMPATH, M.A., M.Phil., M.Ed.,
Lecturer in English,
Maharani Teacher Training Institute,
Dharapuram.

APPENDIX-F

CERTIFICATE OF TAMIL EDITING

TO WHOM SOEVER IT MAY CONCERN

This is certify that the dissertation work, " **A Study to assess the effectiveness of infra red rays and sitz bath on pain and wound healing among primi postnatal mothers in a selected hospital, Tirupur,**" done by Miss.S. SHAMLIN NINSHA,II Year M.Sc (Nursing)student of Bishop's College of Nursing , Dharapuram is edited for Tamil Language appropriateness by டா·மு·செந்தில் குமார்

D.M.SENTHIL KUMAR, M.A.,B.Ed.,M.Phil.,
Guest Lecturer,
Department of Tamil,
Alagappa University Study Centre,
DHARAPURAM - 638656.

தா.மு.செந்தில் குமார்
Signature

Date   :

Address   :

APPENDIX – G

TOOL

DEMOGRAPHIC VARIABLES

1. Age in years

      a) 21-25 years

      b) 26-30 years

      c) 31-35 years

2. Educational Status

      a) No formal education

      b) Primary education

      c) High school education

      d) Higher secondary education

3. Occupation

      a) House wife

      b) Coolie

      c) Private employee

      d) Government employee

4. Religion

      a) Hindu

      b) Muslim

      c) Christian

      d) others

5. Income per year

      a) Below 5ooo

      b) 5001-8000

      c) Above 8000

6. Type of the family

      a) Nuclear family

      b) joint family

7. Residence

      a) Rural

      b)Urban

SHORT TERM McGILL PAIN QUESTIONNAIRE:

1. What type of pain do you experience?

    a. Dull   (1)

    b. Pricking   (2)

    c. Lacerating   (3)

    d. Cramping   (4)

    e. Miserable   (5)

    f. Untolerable   (6)

2. Which word is used to describe the pattern of pain?

    a. Continuous, steady, constant.   (1)

    b. Rhythemic, periodic, intermittent   (2)

    c.   Brief, momentary, transient.   (3)

3. Severity of pain during selected activities

SL. No	Questions	Mild (1)	Discomforting (2)	Distressing(3)	Horrible(4)	Excruciating (5)
1.	How severe the pain while sitting on the bed					
2.	Which type of pain do you experience while moving in the bed					
3.	How strong is the pain while urinating and defecating.					
4.	How you feel while lifting the baby					
5.	How was the pain while walking					
6.	How the pain is felt at the time of feeding.					
7.	How you experience pain while doing pelvic floor exercise					
8.	How do you experience pain while having a bath.					

The total score is 49

No Pain	0
Very mild pain	1-9
Mild pain	10-19
Moderate pain	20-29
Severe pain	30-39
Worst pain possible	40-49

REEDA SCALE

SCORE	R REDNESS	E EDEMA	E ECCHYMOSIS	D DISCHARGE	A APPROXIMATION
0	none	none	None	none	Close
1	Within .25cm incision bilaterally	Perineal <1 cm from incision	Within .25cm bilaterally or unilaterally	serum	Skin separation 3mm or less
2	Within .5cm incision bilaterally	Perineal and or vulvar between 1-2 cm from incision	Between0.25-1cm bilaterally or between 0.5 to 2cm unilaterally	Sero sangunious	Skin and subcutaneous fat separation
3	Beyond 0.5cm incision bilaterally	Perineal and or vulvar >2 cm from incision	1cm bilaterally or 2cm unilaterally	Bloody purulent	Skin, subcutaneous fat and facial layer separation
Total Score					

TOTAL SCORE IS 15

No infection   -   0

Mild infection   -   1 to 5

Moderate infection   -   6 to 10

Severe infection   -   11 to 15

மேக்கில் வலி குறித்த கேள்விகள்

1. எந்த வகையான வலியை நீங்கள் அனுபவிக்கிறீர்கள்?

      அ) மெதுவான வலி   (1)

      ஆ) குத்துகின்ற வலி   (2)

      இ) உரசிய புண் போன்ற வலி   (3)

      ஈ) சுளுக்கு போன்ற வலி   (4)

      உ) பயங்கரமான வலி   (5)

      ஊ) சகித்து கொள்ள முடியாத வலி   (6)

2. கீழ் கொடுக்கப்பட்ட தொடரில் எது உங்களுக்கு தொடர்புடையது?

      அ) தொடர்ச்சியான, நிலையான, எப்பொழுதும்.   (3)

      ஆ) அவ்வப்போது, நின்று நின்று வருகின்ற வலி   (2)

      இ) சுருக்கமான, தோன்றி மறைகின்ற, தற்காலிகமான   (1)

வ. எண்	கேள்விகள்	0	1	2	3	4	5
1.	படுக்கையில் உட்காரும்போது எவ்வளவு கடினமான வலி இருக்கிறது?						
2.	படுக்கையில் நகரும்போது எவ்வளவு வலியை அனுபவிக்கிறீர்கள்?						
3.	சிறுநீர் கழிக்கும்போது, மலம் கழிக்கும்போதும் எவ்வளவு கடுமையான வலி இருக்கிறது?						
4.	குழந்தையை தூக்கும் போது எவ்வளவு வலியை உணர்கிறீர்கள்?						
5.	நடக்கும்போது வலி எப்படி இருக்கிறது?						
6.	பால் கொடுக்கும் போது வலியை எவ்வாறு உணர்கிறீர்கள்?						
7.	இடுப்பு உடற்பயிற்சி செய்யும்போது எவ்வளவு வலி இருக்கிறது?						
8.	குளிக்கும்போது எவ்வளவு வலி இருக்கிறது?						

0 ___ இல்லை   3 ___ வருத்தழூட்டும்

1 ___ மெல்லிய   4 ___ பயங்கரமான

2 ___ தொந்தரவு தரக்கூடிய   5 ___ மிக துன்பப்படுத்தும்

<p style="text-align:center">PROCEDURE</p>

INFRA RED RAYS:

Infra red lamp supplies radiant heat or infra red rays (invisible heat rays beyond the red end of the spectrum). It is used to provide heat to a localized area of the body. Infra a red ray penetrates 3 mm of tissue at the most. It provides the surface only.

Articles: infra red lamp, inch tape, top sheet, goggles.

Steps:

➢ Wash hands
➢ Provide privacy to mother.
➢ Expose area to which heat is to be applied.
➢ Drape patient appropriately to avoid exposure.
➢ Put on goggles to protect patient's eye.
➢ Place lamp at a distance of 45cm to 55 cm (18inches)
➢ Watch for the condition of patient's skin for burns, redness and discomfort.
➢ Position the patient comfortably on the bed.
➢ Replace the articles.
➢ Wash hands.

SITZ BATH

Sitz bath is a method of applying heat using warm water to the pelvic or rectal area by sitting in a basin filled with sufficient water. The temperature of water is 110-115 degree Fahrenheit and the duration of bath is 15 to 30 minutes.

Articles: steel basin, lotion thermometer, watch, towel, top sheet.

Steps:
- Identify the patient and explain the procedure to her.
- Provide privacy
- Fill the basin with ½ full of water.
- Instruct the mother to empty the bladder.
- Remove dressings and inspect the perineal area.
- Check the temperature by thermometer before allowing the patient to sit in the basin.
- Assist the patient to sit and position them properly.
- Monitor the client closely for the signs of fainting, pallor and rapid pulse.
- Do not leave the client alone in the basin.
- Assist the client out of sitz after 10 minutes and dry the area well.
- Provide comfortable position and ask for any complaint.
- Clean the sitz bath tub for next use.
- Replace all articles
- Wash hands.

APPENDIX - I