EFFECTIVENESS OF BREAST CRAWLING TECHNIQUE IN THE EARLY EXPULSION OF PLACENTA AND BLOOD LOSS AMONG WOMEN IN THIRD STAGE OF LABOUR

By

Miss. N.GOMATHI

A Dissertation submitted to

THE TAMILNADU Dr.M.G.R MEDICAL UNIVERSITY,

CHENNAI.

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

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CHAPTER - I

INTRODUCTION

Women in child bearing age and growing infants and children together form around 59% of our society. They are more dependent and vulnerable members of the society. They are at high risk of morbidity and mortality.

World Health Organization, United Nations Population Fund, the United Nations Children Emergency Fund, The World Bank reported about maternal mortality that “The number of women dying due to complication during pregnancy and child birth has decreased by 34% from an estimated 5,46,000 in 1990 to 3,58,000 in 2010”. But it is less than half of what is needed to achieve Millennium Development Goals target for reducing maternal deaths by 75% between 1990 and 2015.

Two third of maternal death in 11 developing countries in India heading the list with 63,000. Maternal mortality rate as well as the infant mortality rate both can be reduced effectively with the initiation of early suckling through breast crawling technique and adequate breast feeding.

Edmond.U., et al.,(2010) states that the child is healthy when it takes breast feed. Breast milk is an ideal diet for newborn.

Breast feeding is an unequal way of providing ideal nutrition for the healthy growth and development of newborn and has unique biological and emotional influences on the health of both the mother and the newborn. Promotion of early initiation of breast feeding has great potential. Worldwide 16% of the newborn deaths could be reduced if all newborns would have been breast fed from the day 1 and 22% of breast feeding would be started within an hour after birth.

Labour is a natural process, there are four stages of labour. In that third stage of labour is very crucial period in women's life. Complications are more prone during third stage of labour.

Annamma Jacob., (2005) the third stage labor begins upon completion of the birth of the baby and ends with the birth of the placenta. It is known as placental stage of labour.

Bonnar John., (2008) In third stage the mother faces many problems such as postpartum hemorrhage, retained placenta, inversion of the uterus. This may lead to increased mortality and morbidity rate. These problems can be prevented by breast feeding especially early suckling through breast crawling technique. In women it plays an important function like, it promotes early expulsion of placenta ,reduces blood loss ,bonding between mother and baby , involution of the uterus to normal size , it acts as natural

contraceptives and reduces the risk of primary postpartum hemorrhage.

World Health Organization (2010) Babies have a suckling reflex that enables them to suck and swallow milk. Newborns follow a predictable pattern of pre- feeding behavior when held on their mother's chest immediately after birth. The movements started within 12 to 44 minutes and had been followed by spontaneous sucking with good attachment at 27 to 71 minutes, there after declined and absent by 2 to 2.30 hours after birth

United Nations Children Emergency Fund (2010) Breast crawl is novel, easy, readily available, evidence based and cost effective miraculous method to initiate breast feeding. It does not require elaborate preparations or instructions and can be performed in all birth settings and units

Health care professionals have an important role to play in promoting and practicing early suckling in management of third stage of labour, and prevention of infant mortality rate and maternal mortality rate.

In **Millennium Development Goals (2008)** stated that there have been improvements in early suckling and also exclusive breast feeding to reduce the infant mortality rate.

Klaus and Kennel., (2010) stated that a baby is born with many instinctive abilities which enable her to perform the breast crawl. With all these innate programme , the infant seems to come into life carrying a small computer chip with set of instructions. It appears that young humans, like other baby mammals, know how to find their mother's breast. The breast crawl is associated with a variety of sensory, central, motor,and neuro–endocrine components all directly or indirectly helping the baby to move and facilitate her survival in the world.

Varendi .D., et al., (2010) showed that within the first hour after birth, significantly more babies spontaneously selected a breast treated with amniotic fluid than the alternative untreated breast. Early initiation of breast feeding (within the first hour) provides benefits for infant and mother. Early initiation ensures that a newborn receives Colostrum," the first milk". Colostrum is often considered at the baby's immunization because of its high levels of vitamin A, antibodies and other protective factors.

The breast crawl is a wonderful method to initiate breast feeding; mother- baby interactions at any time are not restricted to nutritional needs alone. The transition from the intra uterine to the extra uterine environment is made more comfortable by the breast crawl.

Bonna john., et al.,(2009) states that in third stage, the mother faces many problems such as postpartum hemorrhage, retained placenta, inversion of the uterus etc. this may lead to increased morbidity and mortality rate. This problem can be prevented by initiation of breast feeding through breast crawling technique.

Durai lama.,(2009) stated breast feeding is clearly enhanced by keeping the mothers and infants together. It starts right at birth, the first feed happens soonest and most successful if the new born stay skin- to- skin with mothers beginning immediately after birth. Newborns recognize the smell of their mother's breast.

World Health Organization (2009) stated that breast feeding have been set at 75% of mothers initiating breast feeding after the birth of their baby. Often expulsive contractions can be encouraged by putting the infant to the breast following the delivery of the fetus. The placenta remains undelivered then greater the risk for bleeding as placenta still in it. These physiological changes can be enhanced by encouraging baby to suckle mothers. This result in relapse of oxytocin from the posterior lobe of the pituitary gland, which helps for good uterine contractions.

Cohen.,(2009) suggested that the other hormone responsible for milk production is oxytocin, which triggers the

delivery of milk that prolactin, has produced, when an infant suckles at the mothers breast, it bring milk out of the nipples. This suction signals the baby to make more milk during prolactin and deliver more milk using oxytocin. The body also produces a variety of other hormone insulin, thyroid, cortisol that is useful to the infant. A women's body will continue to produce milk until she stops breast feeding and even then, it may take several months for milk production to completely stop.

World Health Organization (2008), stated that mothers who had normal vaginal delivery should confirm that within a half an hour of birth the breast feeding should be initiated.

Lowder Milk., (2010), reported that infants suckling at the mother's breast stimulate uterine contractions because it causes her posterior pituitary to release natural oxytocin. The mother unhurried or gentle approach to the third stage of labour using observations of physiological of birth contributes to a successful outcomes and safe delivery of placenta and membranes. This in turn enhances pleasant experiences of child birth for the mother.

NEED FOR THE STUDY

Baby Friendly Hospital Initiative (2010), stated that the neonate should be suckled with half a formal steps, early suckling gives tremendous release of hormones of love named oxytocin

which facilities in contraction of smooth muscles of breast and uterus, producing milk ejection and separation of placenta and minimizing the blood loss during postpartum period.

Widstrom., et al.,(2009) recorded a state of wakefulness during the breast crawl ,according to brazellon's neonatal behavioural assessment scale, at 15 minutes the newborn's median state was 4. Alertness gradually decreased until 150 minutes after birth, when they fall asleep. This confirms that the newborn's brain is optimally ready to integrate various sensory inputs and other components of the breast crawl soon after birth, a vital period of alertness will be lost and the newborn will start to sleep, hence the breast feeding may be delayed for several hours. This delay makes the newborn to loose the benefits of early initiation.

Klaus and Kennel., (2009) stated that in the past more care takers believed that the newborn needs help to begin breast feeding. Hence, immediately after birth the newborn was given to the mother with it's placed near or on the mother's nipple. In that situation, some newborns did suckling but most of them just licked the nipple or peered up at the mother. The newborn were appeared to be much more interested in the mother's face,

especially her eyes, even though the nipple was right next to her lips.

Dr.Gangal.,(2009) stated that breast crawl helps the uterine contractions and faster the expulsion of the placenta, reduces maternal blood loss and prevents anemia. Only 39% of newborn in developing countries are put to the breast within one hour of birth. Establishing good breast feeding practices in the first day is critical to the health of the infant and to breast feeding success.

North eastern states and Goa are some of the better performing states in India. The rate in Mizoram is 65.4% that is highest in the country followed by 59.7% in Goa and 58.6% in Megalaya. The other states that have relatively higher rates are Kerela (55.4%), Tamil nadu (53.3%), Arunachala Pradesh (55%),Orissa (54.3%),Maharashtra (51.5%), Nagaland (51.5%), and Assam (50.6%). In states like Bihar, Uttarpradesh, Punjab, Jharkhand, Rajasthan, it is less than 40%. Even in the previous list Uttarpradesh and Bihar have lowest rate that is only 7.1% and 4% respectively.

Kulkarini., (2010) contrary to the belief that a newborn is not able to do anything on their own. They are at the highest mood soon after birth. The newborn remains alert for half an hour and if not properly activated during this period, falls asleep. Therefore

soon after delivery, when the newborn has cried and started breathing well. Breast feeding can be intimated by stimulating the alertness of the newborn.

World Health Organization (2006) the best time to start breast feeding is within 20-30 minutes of the newborn's birth, if there is no complications with delivery, it helps to promote bonding and immune protection.

Gangal., (2007), thus, breast crawl has the potential to improve initiation rates of breast feeding and to reduces neonates, infant and under five, maternal morbidity and mortality.

Arun Gupta., (2007), conducted a study, which stated the early breast feeding through breast crawling has a physiological effect on the uterus as well, causing it to contract. This action would also be useful for reduction in postpartum bleeding in women. Oxytocin is known to play a role in bonding and reduction in postpartum bleeding. It has been demonstrated that oxytocin levels increases during first 25 minutes and return to normal levels in 60 minutes. It was found that suckling and hand touching by babies stimulates oxytocin release which is significant for uterine contractions, milk ejection and mother infant relationship.

American Academy of Pediatrics (2010) defined that exclusive breast feeding for the infant consists of receiving only

breast milk without supplementation of food or drink, not even water. Exclusive breast feeding is the reference or normative model for infant feeding. It also suggested that the optimal duration of exclusive breast feeding should be until 6 months of age.

World Health Organization (2010) found that many children in the world are dying or suffering from the effects of ill health, poor nutrition and inadequate health care. 10.6% mother children die each year. New born babies less than one month old are at greater risk. Average child death each year nearly 4 million are among new born.

World Health Organization (2010) stated that “make every mother and child count”, there are severe bleeding hemorrhage(25%), infections(13%), unsafe abortions(13%), eclampsia(12%), obstructed labour(8%) other direct causes(8%) and indirect causes(20%) such as malaria, anaemia, HIV/AIDS and cardio vascular disease complicate pregnancy at are aggravated by it.

Forty five percent of postpartum deaths occur within 24 hours. Over 90% of maternal deaths occur in developing countries in comparison, pregnancy associated homicide accounts for 2 to 20 deaths per 100,000 live births possibly substantially higher due to under reporting. In developed countries the most common

cause of maternal death is obstetrical hemorrhage, followed by deep vein thrombosis.

STATEMENT OF PROBLEM

EFFECTIVENESS OF BREAST CRAWLING TECHNIQUE IN THE EARLY EXPULSION OF PLACENTA AND BLOOD LOSS AMONG WOMEN IN THIRD STAGE OF LABOUR.

OBJECTIVES

- to assess the ability of newborn to initiate breast feeding through breast crawling technique.
- to evaluate the effectiveness of breast crawling on early expulsion of placenta and blood loss among women in third stage between control and experimental group.
- to correlate between breast crawling and early expulsion of placenta and blood loss among the experimental group.
- to associate between the early expulsion of placenta and blood loss with selected demographic variables in experimental group .

OPERATIONAL DEFINITIONS

Effectiveness

It refers to evaluate the effectiveness of breast crawling technique in statistical significant difference in expulsion of placenta and total blood loss.

Breast crawling technique

Every newborn, when placed on her mother's abdomen, soon after birth, has the ability to find her mother's breast all on her own and to decide when to take the first breast feed. This is called the "breast crawl".

Early expulsion of placenta

After complete separation of the placenta, it is forced down into the flabby lower uterine segment and out of vagina before 15 minutes due to contraction and retraction process.

Parturient women

The women who is in the process of labour.

Third stage of labour

It begins after expulsion of the fetus and ends with expulsion of the placenta and membrane (after birth). Its average duration is about 15 minutes in both primigravida and multipara.

ASSUMPTIONS

- Breast crawling has some effect on the third stage of labour.

- Breast crawling may reduce the total duration of third stage by early expulsion of placenta and reduces blood loss.

LIMITATIONS

- 60 samples only.
- In selected setting only.
- Assessing only third stage of labour.

PROJECTED OUTCOME

- Breast crawl will enhance the ability of newborn to initiate breast feeding without assistance from the investigator or mother.

- Physiological management of early suckling will reduce the total duration of third stage of labour and blood loss.

CONCEPTUAL FRAME WORK

Kozier.,(2005) Conceptual framework provides a certain frame for clinical practice, research and education. It gives direction and guidance for structuring research.

Shields and Tafalli., (2006), Conceptual framework are a type of intermediate theory that have the potential to connects all aspects of enquiry, e.g., conceptual framework acts like maps that give coherence empirical enquiry. Because conceptual framework are potential close to empirical enquiry. They take different forms depending upon the research question or problem.

The present study is based on the concept of early initiation of breast feeding through breast crawling technique on women who are in third stage of labour for early expulsion of placenta and blood loss.

The investigator adopted the **Modified Kristen M.Swanson Theory of Caring (2011**).

Swanson states that caring is a nurturing way of relating to a valued other towards the postnatal mother feels a personnel sense of commitment and responsibility by midwife's.

The caring model in, which Swanson proposed that five basic processes maintaining belief, knowing, being with, doing for, enabling.

Maintaining belief (instilling hope) is sustaining faith in the other's capacity to get through an event or transition and face future with meaning.

Knowing (empathy) is striving to understand the meaning of event in the life of others.

Being with (presence) means sharing feelings without burdening the one cared for.

Doing for (Evidence based practice) means to do for others what one would do for self if at all possible.

Enabling (empowerment) is facilitating the others passage through life transition and unfamiliar events by focusing the others.

In this present study midwives initiates early breast feeding through breast crawling technique and enables in the early expulsion of placenta and reduced blood loss in the third stage of labour.

Maintaining belief early suckling through breast crawling avoids third stage labour complication and enhances more

interaction between mother and infant to have continuous breast feeding.

Knowing: The researcher knowing the demographic variable of mothers – age, obstetrical score, gestational age, episiotomy wound, gender of the newborn, weight of the newborn and the APGAR score of newborn.

Being with refers to explaining the procedure of breast crawling to the mother, get the oral consent and observation of labour from second stage to third stage.

Doing for refers to initiating the early breast feeding initiation through breast crawling technique to the experimental group.

Enabling refers to facilitating the change in the early expulsion of placenta total duration of third stage of labour and blood loss. It is observed by observation record sheet.

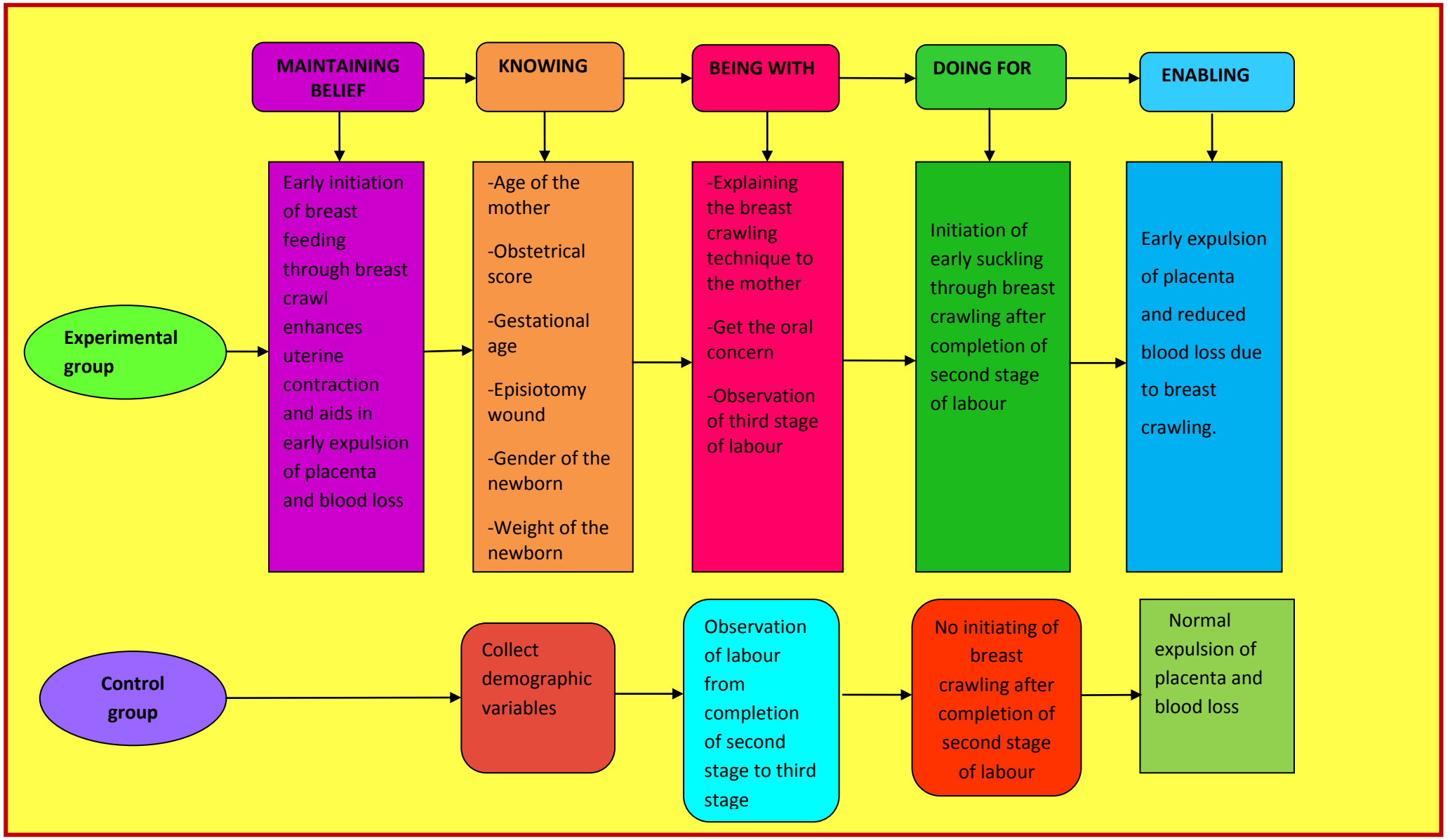

FIG 1.1 CONCEPTUAL FRAMEWORK BASED ON MODIFIED KRISTEN M.SWANSON THEORY OF CARING (2011)

CHAPTER – II

REVIEW OF LITERATURE

Review of literature is an essential component of the research process. It is a critical examination of publications related to the topic of interest. Review should be comprehensive and evaluative. It helps to plan and conduct the study in a systematic and scientific manner. For the present study, the related literature was reviewed and organized as following.

I. **Literature related to third stage of labour.**

II. **Literature related to effectiveness of early suckling through breast crawling**.

III. **Literature related to breast crawling and early expulsion of placenta and blood loss.**

I. LITERATURE RELATED TO THIRD STAGE OF LABOUR

Frank Silverman., (2011), stated that signs of placental separation include a gush of blood, lengthening of the umbilical cord, and anterior uphold movement of the uterine fundus, which becomes firmer and globular after the placenta detacher. Placental expulsion follows as a result of a combination of events including spontaneous uterine contraction downward pressure from the developing retro placental hematoma, and an increase in maternal intra abdominal pressure. In tertiary hospital was assessed length

of third stage labour. Length was 5 to 6 minutes, 90% of placenta was delivered within 15 minutes, and 97% delivered within 30 minutes of birth.

Metin Altay .A., (2010), conducted a study on the location of placenta at term pregnancies and the duration of the third stage of labor. The placental implantation was determined as anterior (n= 78), posterior (n=59), or fundal (n=64) by ultrasound, in 201 woman with singleton pregnancies. After delivery of the newborns inj.oxytocin were routinely given. The duration of third stage of labor was 10.36+ 5.94 min, 10.44+ 5.35 min, and 8.12+ 4.25 min with placentas located interiorly, posterior, and fundal, respectively. The length of third stage labour was approximately 2 minutes shorter in the fundal placenta group compare to the other two groups.

Path., (2010), conducted a comparative study on assessing the effectiveness of active management of third stage of labour. Among antenatal mothers by using quasi experimental design, the data was analysed through observation and measurable method. Active management of third stage of labour reduced the risk of prolonged third stage beyond 30 minutes when compared to supplemental oxytocin and bimanual compression.

Magnn., (2009), conducted a prospective observational study to estimate the whether the length of the third stage of labour is correlated with postpartum hemorrhage. Women delivering vaginally in tertiary obstetric hospital were assessed postpartum hemorrhage. During 24 months period there were 6,588 vaginal deliveries in a single tertiary obstetric hospital and PPH occurred in 335 (5.1%) of these. The risk of postpartum hemorrhage was significant, at 95% of them got 10mts of completion of third stage of labour, 95% of them got 20 minutes, of completion of third stage of labour (95%). Of them got 30mts.The best predictors for PPH using recover operating characteristics curve was 18mts.

Alvare Z. H., (2008), conducted a study on uterine contractility in the 3rd stage of labour. After birth of the child, the umbilical vein is connected with a mercury manometer. Their average intensity (50mm/Hg) and frequencies 4/10mts are similar to those of the second stage but they are absolutely painless. The upper segment time (U.S.T) is measured from the birth of the child to the moment in which the placenta is expelled from the upper segment. Its average value in normal case is six minutes between ten and thirty minutes is prolonged U.S.T and more than thirty minutes is the retention of placenta.

II. LITERATURE RELATED TO EFFECTIVENESS OF EARLY SUCKLING THROUGH BREAST CRAWLING

Gangal., (2010), the biggest advantage of breast crawl method is that, it ensures better mother, newborn bonding, helps to keep the newborn warm and facilitate early initiation of breast feeding. Breast crawl helps in uterine contraction, enhances expulsion of the placenta, reduces maternal blood loss and prevents anemia. It seems to distract mothers from discomfort during perineal repair.

Klaus and Kennel., (2010), birth practices like bathing, anthropometric assessment, injection of vitamin K and application of eye ointment can affect breast feeding particularly, the initiation. Hence, all these routines practices should be delayed for at least one hour. A newborn who has cried well does not need oro-nasal suction. If necessary, the secretion should be removed by soft cotton cloth or bulb sucker. Using suction tube will make injuries to the newborn's delicate mucosa which may interfere in feeding behaviour. In order not to remove the taste and smell of the mother's amniotic fluid, it is also necessary to delay cleaning the newborn's hands. Since early hand sucking behaviour is markedly reduced when newborn is bathed before breast crawl.

Wildstrom.et al., (2009), described the ability of the newborn in first hour of life to find out, grasping of nipple and sucking, without the active participation of the mother. A total number of 21 newborns were undertaken for the study among that 20 newborns completed breast crawl successfully. Newborns completed the breast crawl with spontaneous attachment as it was their instinctive.

Righard and Alade., (2008), studied about the effect of delivery room practice on early initiate of breast feeding. In that study, 72 newborns who have born normally were assigned in two groups. In the separated group(n=34), the newborn was placed on the mother's abdomen immediately after birth but taken away after 20 minutes for measuring and wrapping. These routines took about 20 minutes after which newborns were replaced again to the mother. In the contact group(n=38), contact between mother and newborn was uninterrupted for at least an hour after birth. The result found that newborns in the contact group started to make crawling movements towards the breast about 20 min after birth and most of the newborns were suckled at the breast by 50 min.

Kartikeya and Bhagat., (2007),conducted a study that states the early skin to skin contact helps to maintain the new born's body temperature, helps in colonization of the maternal

bacterial flora, maintains newborn's sugar level. It improves metabolic stability, enhance maternal – newborn relationship and earlier establishment of effective suckling and feeding behaviour. All these enhance the newborn's sensory, neural development. These newborns cry less, emotionally more stable and are at a lower risk of abandonment.

Marshall Kalus., (2007), conducted a study on breast crawling among mother and infant. The researcher observed that if an infant's lips touched her mother's nipple in the first hour of life. It should be noted when the infant suckles from breast there is an outpouring of 19 different gastrointestinal hormones in both the mother and the infant. This increases oxytocin in both the mother's brain and the infant's brain, which stimulates the vagus nerve, then causes the increase in the output of gastrointestinal hormones and early expulsion of placenta and minimal blood loss.

W. Jonas., (2007), conducted a study aimed to investigate the pattern of maternal blood pressure before during breast crawling. 66 primigravida with normal deliveries were consecutively selected. Blood pressure was measured at 5, 10, 30 and 60 minutes in connection with a early breast feed through breast crawl. The fall in systolic and diastolic blood pressure amounted to 8.8 (SD=11.00) and 7.7 (SD=9.3) mmHg,

respectively. The total fall in systolic and diastolic blood pressure amounted to a mean of [SD=104] mmHg and 10(SD=9.7) mmHg, respectively. Both systolic and diastolicblood pressures fall during a breast feeding session.

Bystrova. K., (2007), conducted a study on maternal axillar and breast temperature after giving birth in Sweden. Three groups of 176 mother-infant pair and were randomized as groups. Episodes of early suckling noted, maternal axillar and breast temperature was measured and infants axillar and foot temperatures were measured at 15 minutes intervals from 30 to 120 minutes after birth. The axillar and breast temperatures raise significantly in all mothers in skin to skin early suckling group and lowest in mothers in the nursery group.

D.W. Irons., (2005) conducted a study to determine the effect of nipple stimulation on uterine activity during the third stage of labour. Randomized sampling technique was used (i) nipple stimulation was given for 6 samples up-to 15 min utes, (ii) regular oxytocin injection was given for 3 samples. Uterine activity was continuously measured using the placenta as an in-situ hydrostatis bag connected to a pressure transducer. Uterine pressure was 103 mm of Hg in the nipple stimulation group, whereas in control group it was 70.8mm Hg. The duration of the third stage and blood loss

tended to be reduced with nipple stimulation compared to control (20.3 versus 12.3 min) and (257 versus 166 ml).

R.Cordan., (2005), cited that early and frequent suckling through breast crawl may increases prolactin receptors in the breast making milk production more effective. According to the statistical report that initial breast feeding rates were 78% in England, 70% in Scotland, 67% in Wales, and 63% in northern Ireland. **(Infant Feeding Survey, 2005)**.

Ann-Marie Widstron., (2004), conducted a study on short term effects of early crawling and touch of the nipple on maternal behaviour in Karolinska hospital,Sweden. The aim of this study was to evaluate the effects of breast crawling within 30 min after birth. Where skin to skin body contact for mothers and infants was held constant in both cases (n=32) and not in control groups (n=25). Median gastrin levels were significantly lower in cases than in controls both before ($p<0.01$) and after ($p<0.03$) breast-feeding. In conclusion, the infant's early touch of the 32 mother's areola and nipple seemed to have positively influenced the mother / infant relationship during the first four days after birth.

Matthiesen. A.S. et al., (2001), conducted a study on postpartum maternal oxytocin release by newborns when breast crawling and the effect of infant hand massage and suckling. Ten

vaginally delivered infants whose mothers had not been exposed to maternal analgesia were video recorded from birth until the first breast feeding. Each infant's hand, fingers, mouth and tongue moments, positions of the hand ,body and suckling 33 behaviour were assessed every 30 seconds. The newborns use their hands as well as their mouth to stimulate maternal oxytocin release after birth which may have significance for uterine contractions, milk ejection and mother infant interaction.

Urvas-Moberg., (2000), conducted a study on early contact versus separation. The purpose of this study was to evaluate and compare possible long-term effects on mother-infant interaction of practices used in the delivery and maternity centre. A total of 176 mother infant pairs and were randomized into four experimental groups .Episodes of early sucking in the delivery ward were noted.The practice of skin contact, early suckling or both during the first 2 hours after birth when compared with separation between the mothers and their infants positively affected. Skin to skin contact for 25 to 120 minutes after birth, early suckling, or both positively influenced mother-infant interaction 1 year later when with separation of mother and infant.

Bullough .C.H., (2000), conducted a study on early suckling and postpartum hemorrhage. A randomized controlled trial was

carried out to determine whether suckling immediately after birth reduced the frequency of postpartum hemorrhage blood loss, and retained placenta. The trial subjects were attended by dais. 68 dais attended a course on third stage management and data collection. 23 in the early suckling group and 26 in the control group recorded blood loss in 2104 and 2123, 34 deliveries of live born singletons respectively the frequency of PPH was 7.9 in the suckling group and 8.4% in the control group and the mean blood loss 258ml and 256ml respectively.

III. LITERATURE RELATED TO EFFECTIVENESS OF INITIATION OF EARLY SUCKLING BY BREAST CRAWLING ON PLACENTAL SEPERATION

Hum lact .J., et al., (2010), did a perinatal services network on all mothers (n=21) who delivered a singleton infant (37-40 weeks gestation) between july 2005 through june 2006. Multivariate ordinal logistic regression showed that maternal infant feeding method initiative(measured prior to birth),socio-demographic characteristics, intrapartum variables and early skin to skin mother- infant contact during the first 3 hours following birth(controlling for delivery hospital) were correlated with exclusive breast feeding during the maternity hospitalization. The

results demonstrate a dose- response relationship between early skin to skin contact and breast feeding exclusively.

Colin .H.w., et al., (2010), carried a randomized, controlled trial was carried out to determine whether suckling immediately after birth reduces the frequency of postpartum hemorrhage(PPH), the mean blood loss, and the frequency of retained placenta. The results showed that women who initiated early suckling had decreased blood loss.

Oliveira .A.s., (2009), six- month follow-up study aimed to assessing the effect of length of both exclusive breast feeding and mixed feeding on hemoglobin levels in 150 infants born at the multiple maternity facilities in bahia state , brazil. Blood tests were performed monthly to assess the haemoglobin levels at which time data were gathered on food intake. Obstetric and socio- economic data were also collected. In conclusion, inadequate food practices appear to be directly involved in the etiology of iron deficiency anemia during infancy.

Mesh teemam din nutria .J., et al., (2009), stated that early milk feeding influence taste acceptance and liking during infancy. The type of formula fed to infants has an effect on their response to taste compounds in crawl before solid food introduction. This

model system of research investigation perhaps sheds light on sources of individual differences in taste and cultural food preferences.

Nabweya alle., et al., (2009), emphasized that postpartum haemorrhage is a major problem that jeopardizes maternal health. Its prevention can save mother's life postnatal, through early initiation of breast feeding through breast crawling technique. So ,the study aimed to explore the effect of early initiation of breast feeding on the amount of vaginal blood loss during the fourth stage of labour. Early initiation through breast crawl and increased frequency of breast feeding could decrease the amount of blood loss during the fourth stage of labour. Therefore, maternity and pediatric nurses have to encourage the mothers to initiate breast feeding through breast crawling technique. They have to explain how breast feeding is beneficial to both mother and child.

Dalai lama., (2007), described that breast feeding within first hour save more than one million babies when healthy infant are placed skin to skin contact in mother abdomen and the chest immediately after birth, they are alert and crawl and reaches the mothers breast. They begin to touch and massage the breast and this speed will stimulate the baby to attach to mothers breast which

stimulates oxytocin release. This process leads to enhance in utero contraction that helps that helps in placental delivery and reduction in maternal bleeding and it stimulates the flow of milk from the heart and mother experience incredible joy with this first meeting of their child which increases process of bonding between mother and baby.

Grenville., et al., (2007), explained that putting the baby immediately following delivery to the mother's breast which helps the uterus to undergo physical changes. The uterine contractions become stronger just by first newborn suckling, then by intense release of oxytocin that helps in involution of the uterus and it also prevent postpartum bleeding.

Louis wattis., (2007), pointed out in his study that the observation of blood loss and effective suckling following the birth by close contact and the baby suckling at the breast which stimulates the release of maternal oxytocin helps in continous contraction of the uterus that forces the placenta to put off from the uterine wall there by it reduces the postpartum bleeding.

CHAPTER- III

METHODOLOGY

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

This chapter consists of description of the research methodology adopted by the investigator to evaluate the effectiveness of breast crawling technique in the early expulsion of placenta and blood loss among women in third stage of labour. It includes research approach, design, variables, settings, population and sampling technique, sample size, criteria for sample selection, development of the tool, pilot study, data collection, procedure and plan for data analysis.

RESEARCH APPROACH

An evaluative research approach was selected for this study. In this study the investigator needs to evaluate the effectiveness of breast crawling technique in the early expulsion of placenta and blood loss among women in third stage of labour in selected hospital. Hence evaluative approach was more appropriate to this study

RESEARCH DESIGN

True experimental design was used.

E	**X**	**O1**
C	**-**	**O1**

Schematic Representation of Research Methodology

E - Experimental group

C - Control group

X - Intervention

O_1 - Post-test

SETTING

The study was conducted in the labour ward of Government Head quarters hospital, Kanchipuram.

POPULATION

The women in third stage of labour progress were selected.

SAMPLE SIZE

60 samples who fulfill the inclusion criteria were selected.

- 30 for control group
- 30 for experimental group

SAMPLING TECHNIQUE

Simple random sampling technique was used.

SAMPLING CRITERIA

Inclusion criteria

- Parturient women who were undergoing full term normal vaginal delivery.
- Parturient women with live fetus and APGAR score more than 7.
- Parturient women who are willing to participate in the study.

Exclusion criteria

- Women with systemic and psychiatric disorder.
- Mothers with nipple abnormalities.
- Mothers with placental abnormalities.
- Fetus with congenital abnormalities.

DESCRIPTION OF TOOL

SECTION-I

Demographic variables

It consists of demographic variables like age, obstetrical score, gestational age, episiotomy wound, gender of the newborn, time taken to initiate breast crawl and time taken for latching.

SECTION-II

Modified latch breast feeding assessment tool

It consists of criteria for newborn's ability to crawl, latch, sucking, audible, swallowing, and length of time before latch on. Criteria for mothers include type of nipple, condition of breast and nipple, ability to hold the newborn and after pain. The scoring was given based on observation by the investigator during the breast crawl.

SECTION-III

Ongoing assessment scale

It consists of questions based on observation of placental separation which includes gushing of blood, fundal consistency of the uterus, lengthening of the cord, time taken for placental separation after initiation of breast crawling, total duration of third stage and the amount of blood loss.

CHAPTER- IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the description of the tool, report of the pilot study, reliability, validity, informed consent, data collection procedure, scoring interpretation, data analysis plan, results and statistical method.

The collected data regarding the initiation of breast crawling in early expulsion of placenta and blood loss were organized, analyzed and interpreted.

SECTION -I

This part of the instrument consists of the interview schedule having the demographic data such as age, obstetrical score, gestational age, episiotomy wound, gender of the newborn, weight of the newborn, time taken to initiate breast crawl and time taken for latching.

SECTION-II

Newborn's ability to crawl was assessed using modified latch breast feeding assessment tool. The maximum score in the scale was 18 and the minimum score was 0 .

SECTION-III

It consists of ongoing assessment based on the observation of placental separation and blood loss. The score was given that the maximum score was 6 and the minimum score was 0.

REPORT OF THE PILOT STUDY

The pilot study was conducted in the labour room at Government head quarters hospital, Kanchipuram for a period of seven days. The standardized tools were prepared by the investigator and used to find out the reliability and validity which was evaluated by the experts of the research committee. The investigator adopted simple random sampling technique to select the six samples. The ability of newborn to breast crawl was assessed by using modified latch breast feeding assessment tool and the placental separation and blood loss was assessed by using ongoing assessment tool.

By using two sample ‘t’ test, the calculated value is greater than tabulated value and hence there is significance of breast crawling on early expulsion of placenta and blood loss among

women in third stage of labour between the control and experimental group.

By using correlation analysis the calculated value is greater than tabulated value which shows there is significant correlation between breast crawling and early expulsion of placenta and blood loss among women in the experimental group.

VALIDITY

The tools were prepared by the investigator which were assessed, evaluated and accepted by experts of research committee. Content validity was obtained from Obstetrics and Gynaecology experts.

RELIABILITY

The reliability was checked by the inter rater method. The reliability was 0.74. After the nursing intervention the two sample‘ t’ test was used and found that early initiation of breast feeding through breast crawling technique was effective on early expulsion of placenta and blood loss among women in third stage of labour.

INFORMED CONSENT

The dissertation committee prior to the pilot study approved the research proposal. Permission was obtained from the head of Obstetrics and Gynaecology department. Then permission was obtained from medical officer and staff nurse in charge. The oral consent from each mother was obtained before initiating breast crawling technique. Assurance was given to the mothers that confidentiality would be maintained.

DATA COLLECTION PROCEDURE

The main study was conducted for six weeks, among women in the third stage in the labour ward of Government head quarters hospital, Kanchipuram and who met the inclusion criteria were selected by using simple random sampling method. The data collection procedure done with the interview schedule to collect the demographic variables. A pad of cotton covered with guaze approximately 8.6 inches, two inches thickness was kept ready to collect the blood loss during the placental separation. The pad was weighed in grams using a weighing scale by putting inside the polythene cover. The mean weight (50 grams) of the pad was measured before collecting the blood from mother.

As soon as the baby was born the time was noted. The cord was cut and the newborn was separated from the mother. The weighed pad is placed over the mackintosh which is free of liquor and other discharges immediately after birth of baby. Simultaneously the baby was suctioned, cleaned; APGAR scoring was done. Then the baby was placed on the mother's abdomen to initiate early suckling through breast crawling technique. The time taken to initiate breast crawling and time taken for latching is noted.

The signs of placental separation such as hardening of the uterus, gushing of blood, lengthening of the cord were observed. Time of complete expulsion of placenta and membranes was noted. The placenta was received, examined and placed in a tray. The pad soaked during the third stage of labour was removed and placed back into the same polythene in which the pad is weighed in the same weighing scale prior to the procedure.

The blood loss in grams was further converted in blood loss in milliliters using formula of 1 gm = 1 ml. the duration of third stage of labour (in minutes) were calculated as the time is taken from the beginning of the third stage of labour till the time of complete expulsion of placenta and membranes.

SCORE INTERPRETATION

Modified latch breast feeding assessment tool was used to assess the newborn's ability to crawl which is described in Section II as follow,

$$\text{Score interpretation} = \frac{\text{Obtained score}}{\text{Total score}} \times 100$$

DESCRIPTION	SCORE
Worst	**0-4**
Better	**5-10**
Good	**11-18**

Worst: Not able to initiate breast feeding through breast crawl.

Better: Need assistance to initiate breast feeding through breast crawl.

Good: Actively initiate breast feeding through breast crawl.

Ongoing assessment scale was used to assess the placental separation and blood loss which is described in Section III as follows,

DESCRIPTION	PERCENTAGE
Mild	**0-50%**
Moderate	**51-75%**
Severe	**>75%**

Mild: Time duration of placental separation less than ten minutes and blood loss between 100 to 300 ml.

Moderate: Time duration of placental separation between ten to fifteen minutes and blood loss between 301 to 600ml.

Severe: Time duration of placental separation more than fifteen minutes and blood loss more than 600ml.

PLAN FOR DATA ANALYSIS

The data had been organized, tabulated and analyzed by descriptive statistics and inferential statistics, mean, standard deviation, two sample “t” test, correlation, chi square test was carried out to evaluate the effectiveness of breast crawling on early expulsion of placenta and blood loss among women in third stage of labour.

Table 4.1

STATISTICAL METHOD FOR DATA ANALYSIS

S. NO	DATA ANALYSIS	METHODS	REMARKS
1.	Descriptive statistics.	Number, percentage, mean, standard deviation.	To describe frequencies of the demographic variables. And to describe the frequency and percentage of expulsion of placenta and blood loss between the experimental and control group.
2.	Inferential statistics.	two sample “t” test.	To analyse the effectiveness of breast crawling on placental separation and blood loss between the experimental and control group.
3.	Inferential statistics.	Correlation test	To correlate between the breast crawling of newborn and placental separation and blood loss in the experimental group.
4.	Inferential statistics.	Chi- square test	To associate demographic variables with effectiveness of breast crawling on early expulsion of placenta and blood loss between the experimental and control group.

The purpose of the analysis is to reduce the data into intelligible and interpretable form.

DATA ANALYSIS AND INTERPRETATION DONE UNDER THE FOLLOWING SECTIONS:

Section A: Percentage distribution of demographic variables of women in the control and experimental group.

Section B: Frequency and percentage distribution of expulsion of placenta and blood loss between the control and experimental group.

Section C: Frequency and percentage of newborn's ability to breast crawl.

Section D: Comparison of mean and standard deviation of expulsion of placenta and blood loss between the control and experimental Group.

Section E: Mean difference of placental separation and blood loss between the control and experimental group,.

Section F: Correlation between breast crawling and early expulsion of placenta and blood loss in the experimental group.

Section G: Association between early expulsion of placenta and blood loss with selected demographic variables in the experimental group.

SECTION A

TABLE 4.2: FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF WOMEN IN THE CONTROL AND EXPERIMENTAL GROUP.

N=60

S.NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP N=30		EXPERIMENTAL GROUP N=30	
		NO	%	NO	%
1.	**Age of the mother**				
	a. 18-24 years	**04**	**13.3**	**03**	**10**
	b. 24-30 years	**25**	**83.3**	**27**	**90**
	c. Above 30 years	**01**	**3.3**	**0**	**0**
2.	**Obstetrical score**				
	a. Primi gravida	**12**	**40**	**14**	**46.7**
	b. Multi gravida	**18**	**60**	**16**	**53.3**
3.	**Gestational age**				
	a. Less than 36 weeks	**0**	**0**	**0**	**0**
	b. 36-40 weeks	**05**	**16.7**	**05**	**16.7**
	c. Above 40 weeks	**25**	**83.3**	**25**	**83.3**
4.	**Episiotomy**				
	a. Present	**15**	**50**	**13**	**43.3**
	b. Absent	**15**	**50**	**17**	**56.7**

5.	**Gender of the newborn** a. Male b. Female	 **15** **15**	 **50** **50**	 **17** **13**	 **56.7** **43.3**
6.	**Weight of the newborn** a. Less than 2500 gm b. 2500-4500 gm c. More than 4500 gm	 **03** **26** **01**	 **10** **86.7** **3.3**	 **02** **27** **01**	 **6.7** **90** **3.3**
7.	**Time taken to initiate breast feed** a. 20 min b. 30 min c. Within 1 hour	 **-** **-** **-**	 **-** **-** **-**	 **23** **07** **0**	 **76.7** **23.3** **0**
8.	**Time taken for Latching** a. 30 min b. 1 hour c. More than 1 hour	 **-** **-** **-**	 **-** **-** **-**	 **01** **24** **05**	 **3.3** **80** **16.7**

From table-4.2, implies the distribution of respondents according to certain demographic variables like age, obstetrical score, gestational age, episiotomy wound, gender of the newborn, time taken to initiate breast crawl, and time taken for latching by the newborn.

Out of 30 women in control group, four(13,3%) women were in the age group of 18-24 years, and one(3.3%) were above 30 years and out of 30 in the experimental group, three(10%) were in the age group of 18-24 years, and no one was above 30 years.

Regarding obstetrical score in the control group, 12(40%) were primigravida, 18(60%) were multi gravida and in experimental group, 14(46.7%) were primigravida and 16(53.3%) were multigravida.

In case of gestational age, no one was less than 36 weeks, and in the experimental group no one was less than 36 weeks and 25(83.3%) were above 40 weeks.

Analyzing the gender of the newborn in the control group, 15(50%) had male babies, 15(50%) had female babies, and in experimental group, 17(56.7%) had male babies and 13(43.3%) had female babies.

Regarding the birth weight of the babies in the control group,three(10%) were less than 2500 grams, and one(3.3%) were more than 4500 grams, and in the experimental group,three(6.7%) were less than 2500 grams, one(3.3%) were more than 4500 grams.

Analyzing the time taken to initiate breast crawl in the experimental group for 23(76.7%) breast crawling was initiated within 20 min, and no one took 1 hour to initiate breast crawl.

In case of the time taken for latching by the new born in the experimental group ,one(3.3%) latched within 30 min, and five(16.7%) took more than 1 hour for latching.

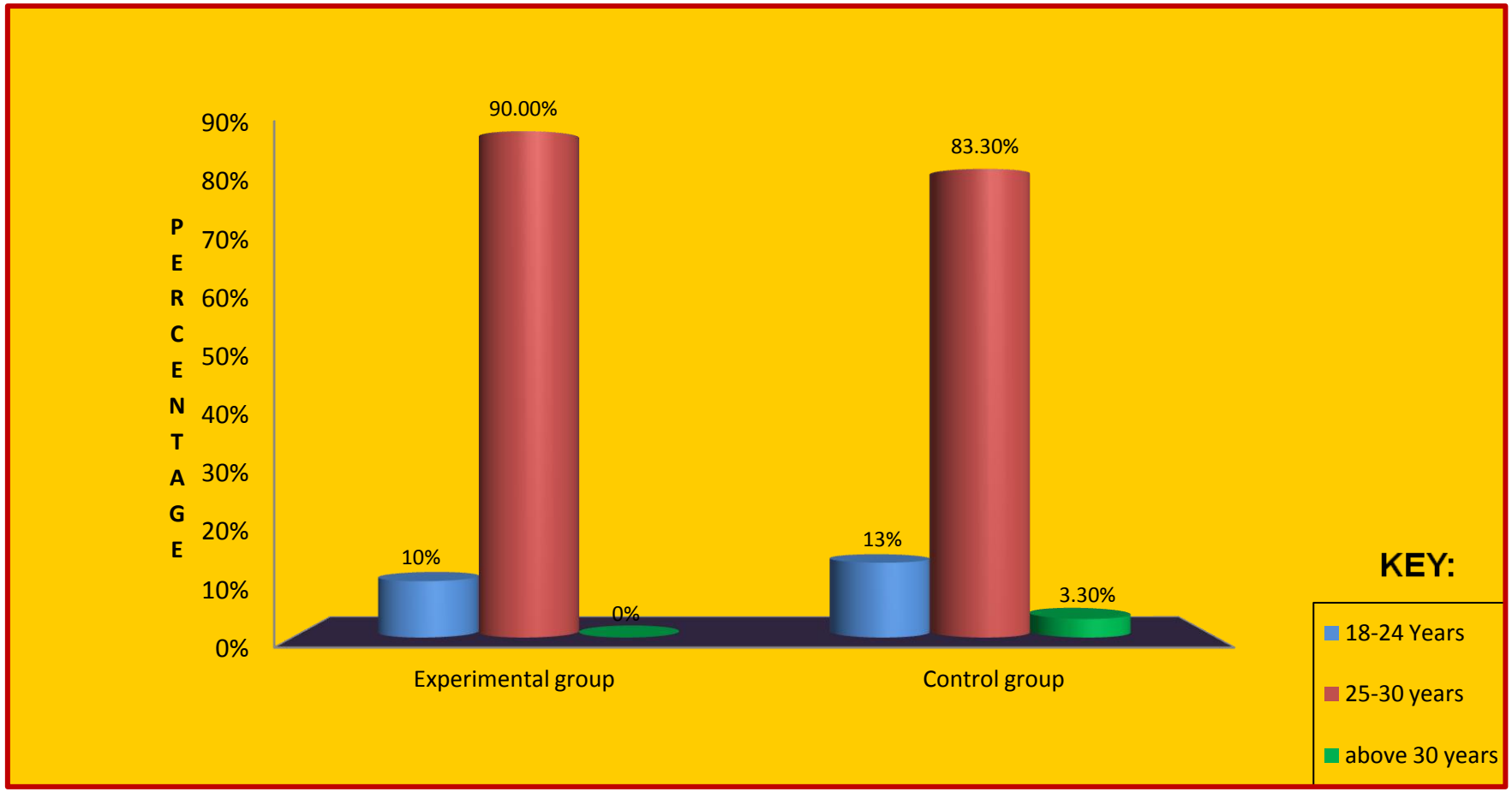

Fig 4.1: PERCENTAGE DISTRIBUTION BASED ON THE AGE OF MOTHERS

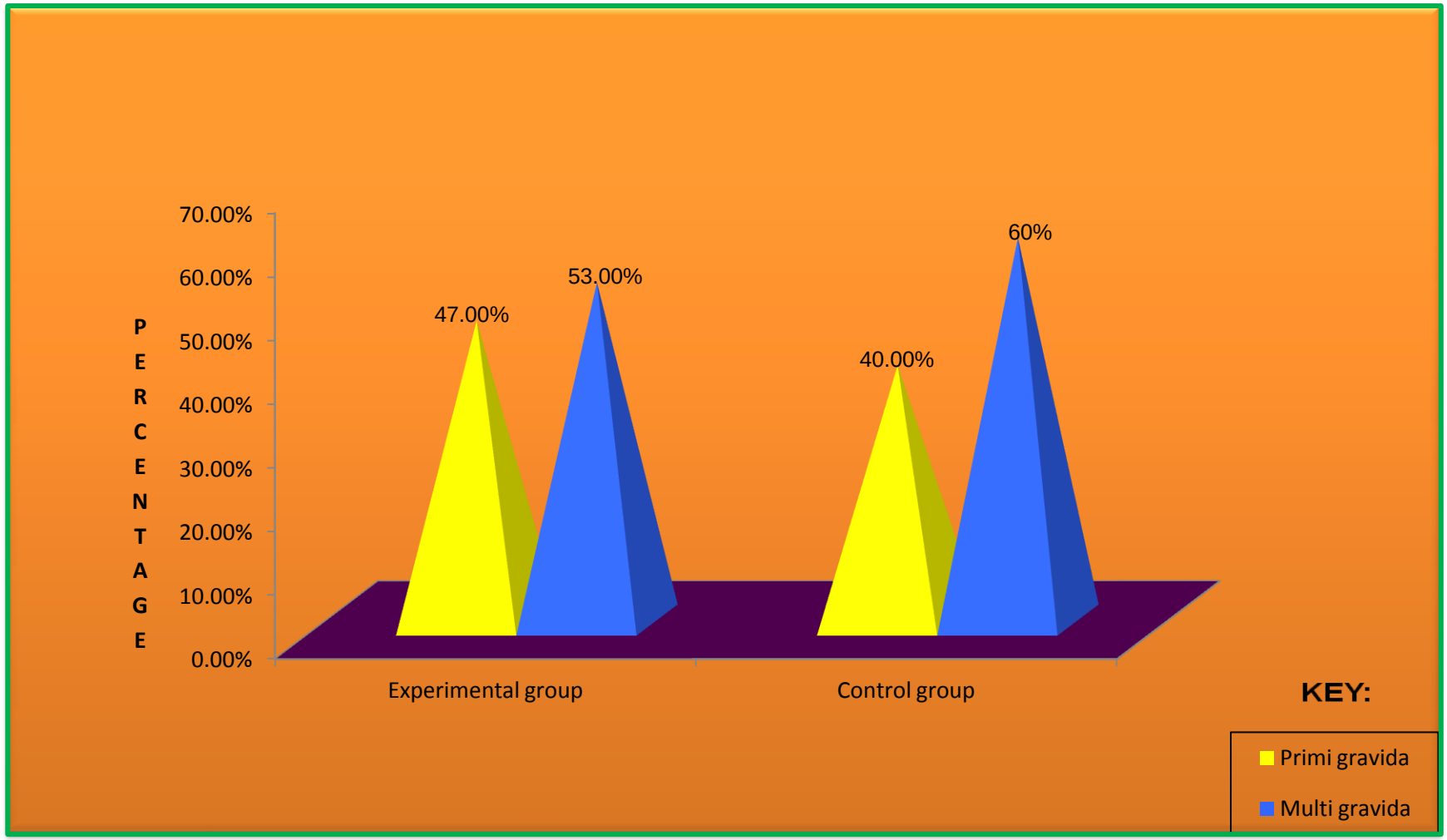

Fig 4.2: PERCENTAGE DISTRIBUTION BASED ON THE OBSTERICAL SCORE OF THE MOTHERS

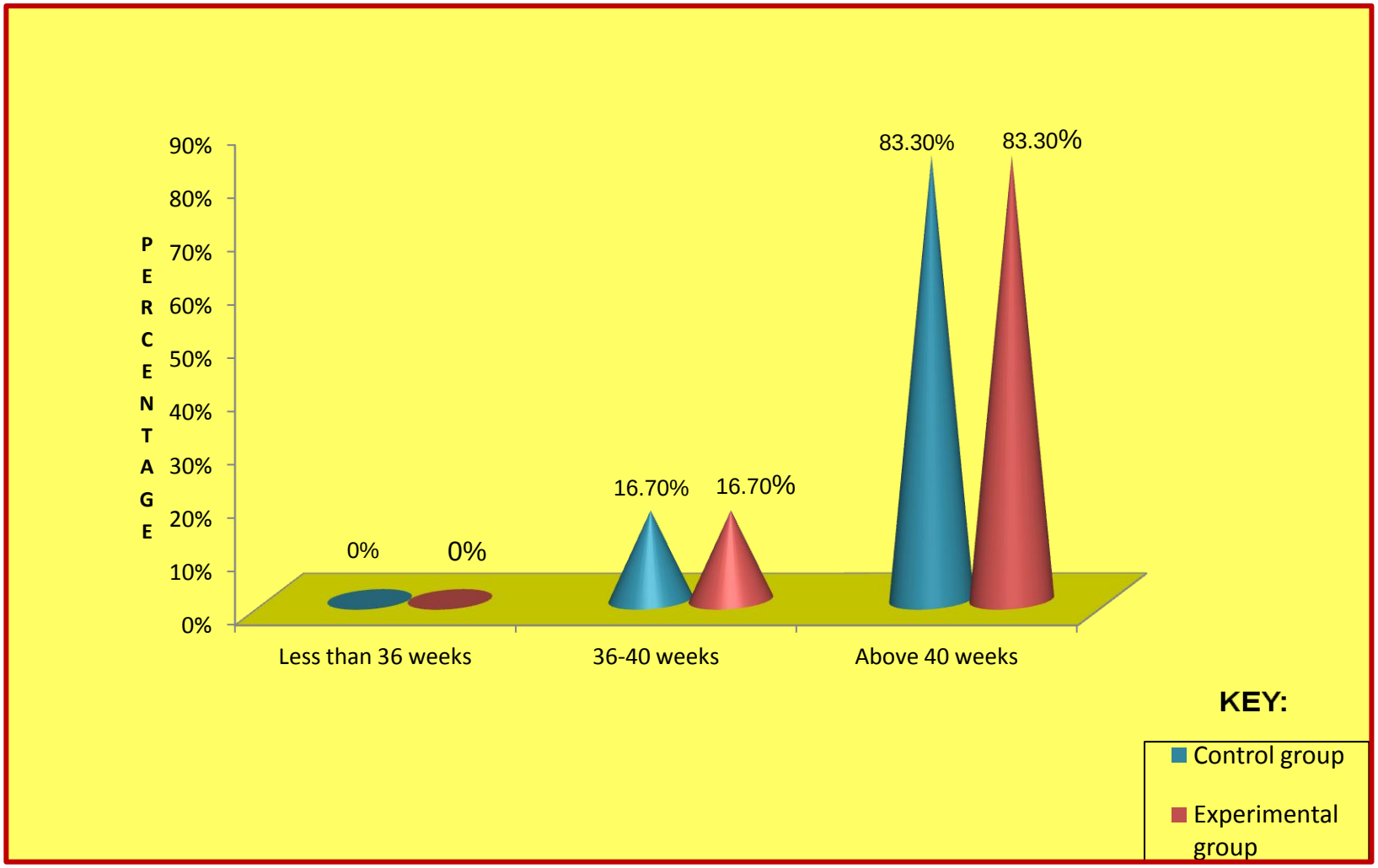

Fig 4.3: PERCENTAGE DISTRIBUTION BASED ON THE GESTATIONAL AGE OF THE MOTHERS

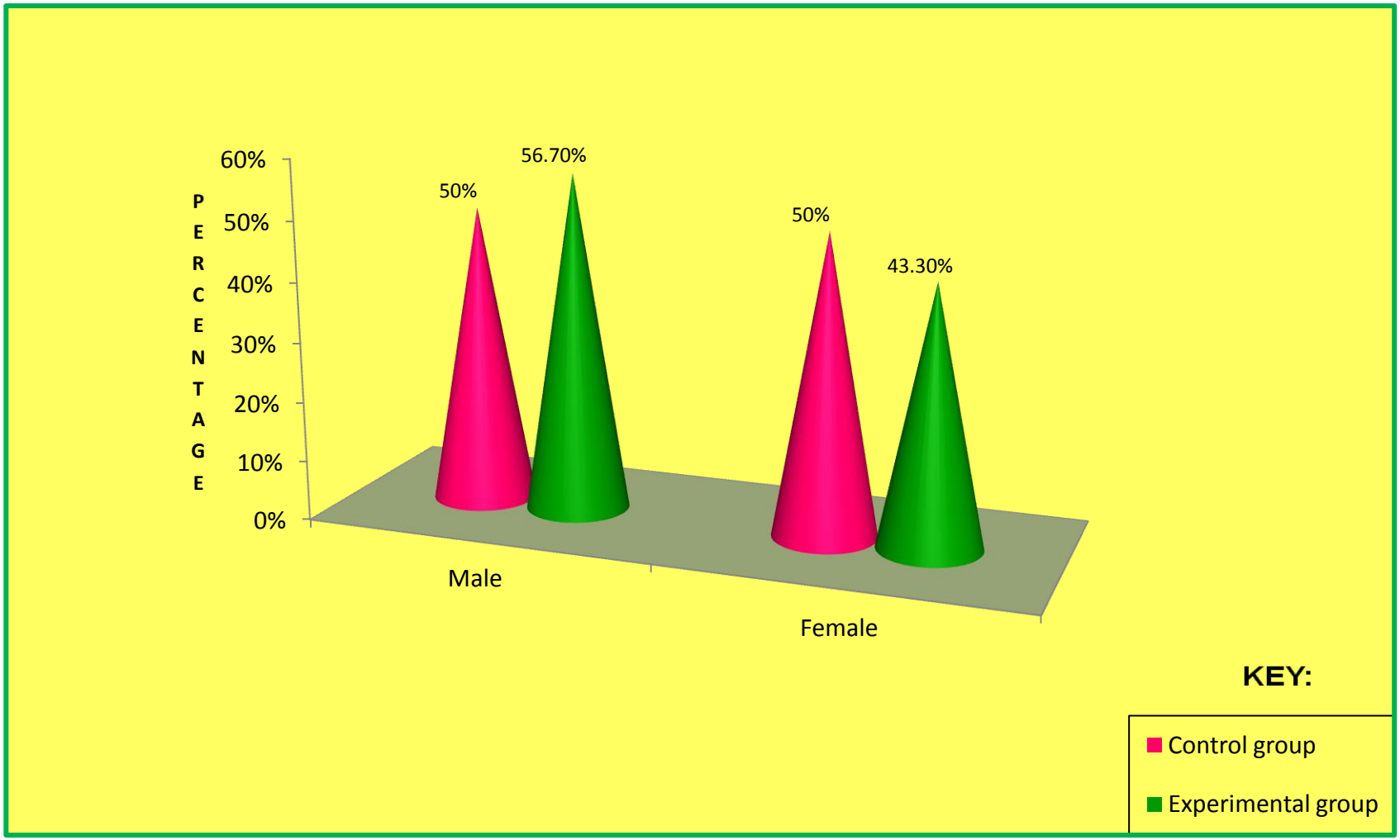

Fig 4.4: PERCENTAGE DISTRIBUTION BASED ON THE GENDER OF THE NEWBORN

SECTION B

TABLE 4.3 : FREQUENCY AND PERCENTAGE DISTRIBUTION OF PLACENTAL EXPULSION AND BLOOD LOSS BETWEEN CONTROL AND EXPERIMENTAL GROUP.

N=60

S.NO	PLACENTAL EXPULSION AND BLOOD LOSS	CONTROL GROUP N=30		EXPERIMENTAL GROUP N=30	
		NO	%	NO	%
1.	MILD	-	-	27	90
2.	MODERATE	7	23.3	3	10
3.	SEVERE	23	76.7	-	-

Table 4.3 reveals the frequency and percentage distribution of placental expulsion and blood loss between control and experimental group. In case of control group seven(23.3%) comes under moderate level, and 23(76.7%) comes under severe level.

In the experimental group, 27(90%) comes under mild level and three(10%) comes under moderate level and no one comes in the severe level in the experimental group.

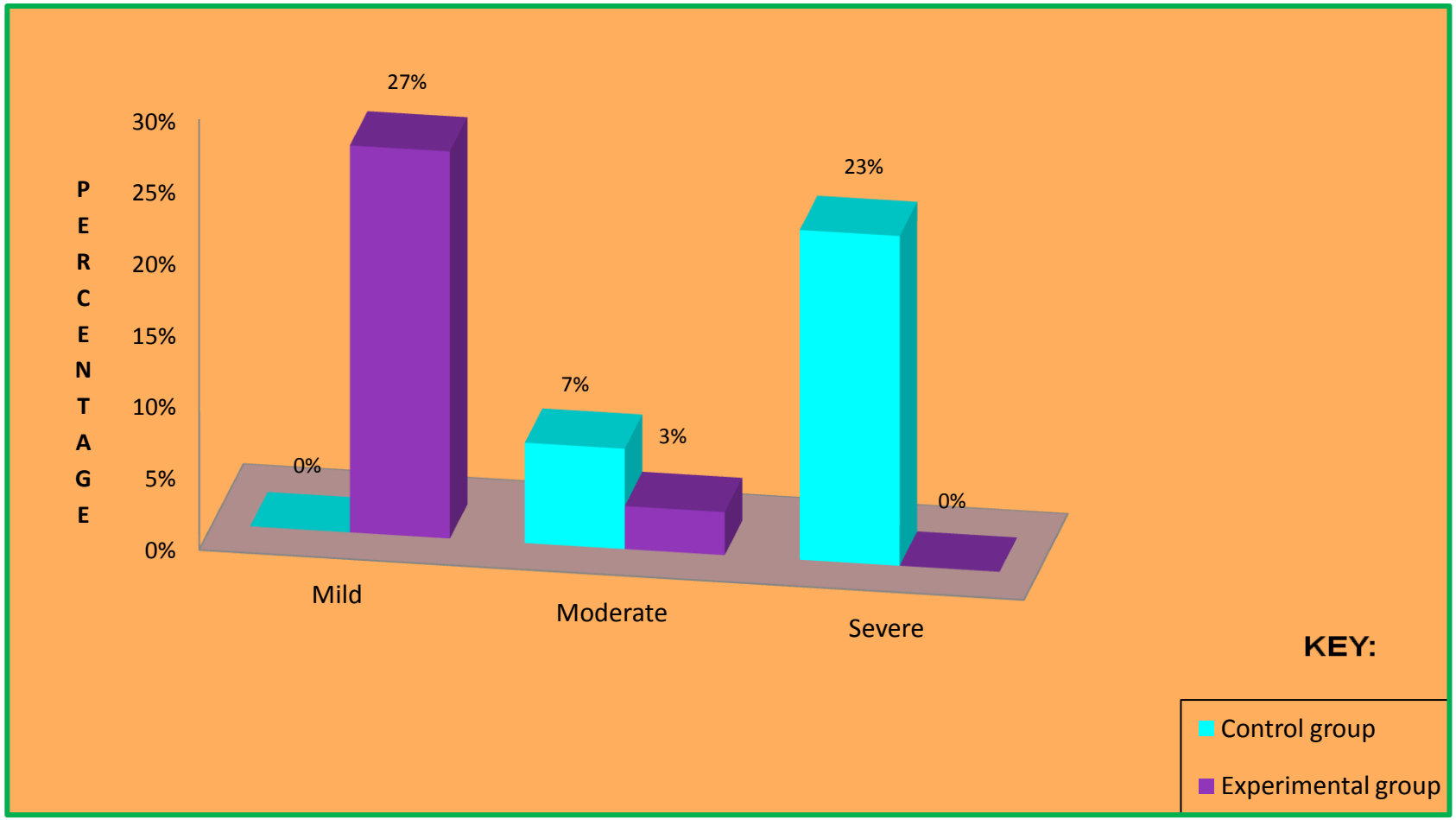

Fig 4.5: PERCENTAGE DISTRIBUTION OF PLACENTAL EXPULSION AND BLOOD LOSS AMONG THE EXPERIMENTAL AND CONTROL GROUP

SECTION C

TABLE 4.4: FREQUENCY AND PERCENTAGE DISTRIBUTION OF NEWBORN'S ABILITY TO BREAST CRAWL

N=60

S.NO	NEW BORN'S ABILITY TO BREAST CRAWL	FREQUENCY	PERCENTAGE
1.	**Not able to initiate breast crawl**	0	0
2.	**Need assistance to breast crawl**	12	40
3.	**Actively initiate breast crawl**	18	60

Table 4.4 states that out of 30 babies in the experimental group, no babies was not able to initiate breast crawl, 12(40%) babies needed assistance to breast crawl on their mother's abdomen and 18(60%) actively crawled on their mother's abdomen towards the breast.

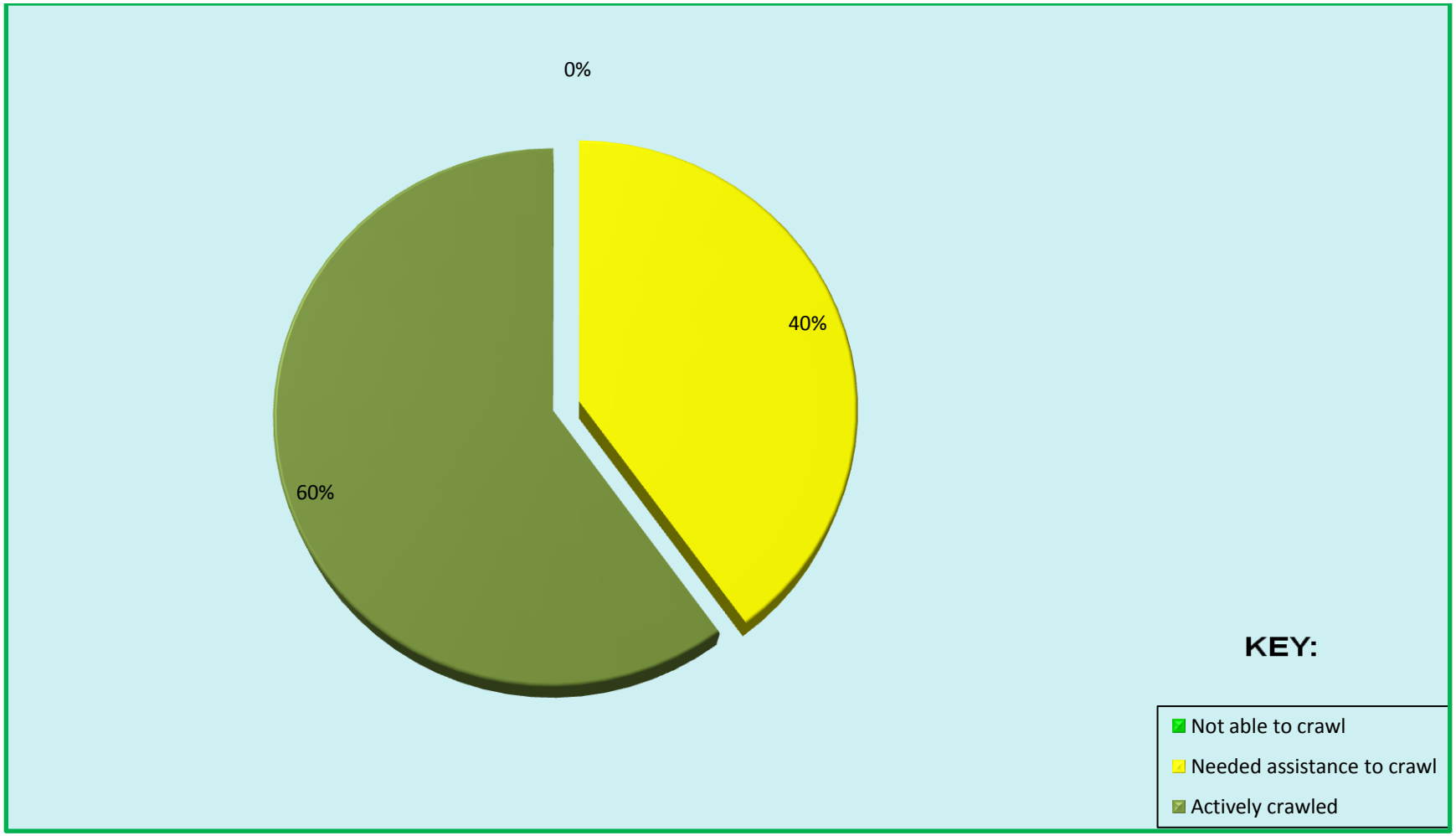

Fig 4.6: PERCENTAGE DISTRIBUTION BASED ON NEWBORN ABILITY TO CRAWL

SECTION D

TABLE 4.5 : COMPARISON OF MEAN AND STANDARD DEVIATION OF EARLY EXPULSION OF PLACENTA AND BLOOD LOSS BETWEEN THE CONTROL AND EXPERIMENTAL GROUP

N=60

S.NO	GROUPS	MEAN	STANDARD DEVIATION	CONFIDENCE INTERVAL
1.	**Control group**	3.06	0.63	2.84-3.29
2.	**Experimental group**	5.30	0.65	5.07 - 5.53

The above table 4.5 shows that in the control group the mean value of early expulsion of placenta and blood loss was 3.06 and standard deviation was 0.63, whereas in the experimental group, the mean value was 5.30 and standard deviation was 0.65 and the confidence interval for the control group is between 2.84 – 3.29 and for the experimental group it is between 5.07 – 5.53.

This reveals that early initiation of breast feeding through breast crawling technique was effective in the early expulsion of placenta and blood loss.

SECTION E

TABLE 4.6 : MEAN DIFFERENCE IN EXPULSION OF PLACENTA AND BLOOD LOSS BETWEEN CONTROL AND EXPERIMENTAL GROUP

N=60

S.NO	MEAN DIFFERENCE	MEAN	STANDARD DEVIATION	't' VALUE
1.	Improvement score	2.23	1.29	13.4*

*significant at p<0.05

Table 4.6 reveals that the mean difference between control and experimental score in the expulsion of placenta and blood loss is 2.23 and standard deviation 1.29,and the 't' value is 13.4, which shows there is significance of breast crawling in the early expulsion of placenta and blood loss in the experimental group.

SECTION F

TABLE 4.7: CORRELATION BETWEEN BREAST CRAWLING AND EARLY EXPULSION OF PLACENTA AND BLOOD LOSS IN THE EXPERIMENTAL GROUP

N=30

S.NO	CRITERIA	MILD	MODERATE	SEVERE	CORRELATION
1.	**Not able to crawl.**	0	0	0	0.181*
2.	**Need assistance**	10	2	0	
3.	**Actively crawling**	17	1	0	

*significant at p<0.05

Table 4.7 states that out of 30 babies in the experimental group, 10 babies which needed assistance to breast crawl and 17 babies which crawled actively comes under mild level(time duration of placental separation less than ten minutes and blood loss between 100 to 300ml), 2 babies which needed assistance and 1 babies which crawled actively comes under moderate level(time duration of placental separation between ten to fifteen minutes and blood loss between 301 to 600 ml) and the correlation value was 0.181, which shows that there is significant correlation between breast crawling and in early expulsion of placenta and reduced blood loss in the parturient women.

SECTION G

TABLE 4.8: ASSOCIATION BETWEEN EARLY EXPULSION OF PLACENTA AND BLOOD LOSS WITH THE SELECTED DEMOGRAPHIC VARIABLES IN THE EXPERIMENTAL GROUP.

N = 60

S.NO	DEMOGRAPHIC VARIABLES	MILD		MODERATE		SEVERE		X^2
		NO	%	NO	%	NO	%	
1.	**Age**							
	a) 18-24 years	0	0	0	0	3	10	
	b) 24-30years	0	0	3	10	24	80	0.37 **NS**
	c) above 30 years	0	0	0	0	0	0	
2.	**Obstetrical score**							
	a) Primigravida	0	0	1	3.33	13	43.33	0.23 **NS**
	b) Multigravida	0	0	2	6.67	14	46.67	
3.	**Gestational age**							
	a) Less than 36 weeks	0	0	0	0	0	0	
	b) 36-40 weeks	0	0	1	3.33	4	13.33	0.66 **NS**
	c) Above 40 weeks	0	0	2	6.67	23	76.67	
4.	**Episiotomy**							
	a) Present	0	0	0	0	13	43.33	2.54 **NS**
	b) Absent	0	0	3	10	1	46.67	

5.	**Gender of the newborn**							
	a) Male	0	0	1	3.33	16	53.33	0.73 **NS**
	b) Female	0	0	2	6.67	11	36.67	
6.	**Weight of the newborn**							
	a) Less than 2500 grams	0	0	0	0	2	6.67	
	b) 2500-4500 grams	0	0	2	6.67	25	83.33	**9.42* S**
	c) More than 4500 grams	0	0	1	3.33	0	0	
7.	**Time taken to initiate breast feed.**							
	a) 20 min	0	0	2	6.67	21	70	
	b) 30 min	0	0	1	3.33	6	20	0.18 **NS**
	c) Within 1 hour	0	0	0	0	0	0	
8.	**Time taken for latching**							
	a) 30 min	0	0	0	0	1	3.33	
	b) 1 hour	0	0	2	6.67	22	73.33	0.74 **NS**
	c) More than 1 hour	0	0	1	3.33	4	13.33	

S- Significant **NS- Non significant**

Table 4.8 implies that there is significant association between the expulsion of placenta and blood loss with weight of the newborn. And there is no significant association between other demographic variables like age, obstetrical score, gestational age, episiotomy wound, gender of the newborn, weight of the newborn, time to initiate breast feeding and time taken for latching by the newborn.

CHAPTER - V
RESULTS AND DISCUSSION

The aim of the present study was to evaluate the effectiveness of breast crawling technique with early expulsion of placenta and blood loss among women in the third stage of labour. A total number of 60 samples were selected for the study. Using modified latch breast feeding assessment scale and ongoing assessment scale on observation of placenta, the effectiveness of breast crawling on early expulsion of placenta and blood loss was seen for experimental and control group. The result of the study had been discussed accordingly to the objectives of the study, conceptual framework and on related literature.

The first objective of this study was to assess the ability of newborn to initiate breast feeding through breast crawling technique.

The study was conducted in the labour ward of Government Head quarters hospital, Kanchipuram. 60 mothers who met the inclusive criteria had been included in the study. The control group had been assessed with questionnaire for demographic variables and using ongoing assessment scale the placental expulsion and blood loss was observed. In the experimental group, out of 30

newborn's, the ability to crawl towards their mother's breast was assessed using modified latch breast feeding tool. In the assessment, 12(40%) crawled towards breast but needed assistance from either mother or investigator, 18(60%) crawled actively towards their mother breast.

The second objective was to evaluate the effectiveness of breast crawling on early expulsion of placenta among parturient women in the control and experimental group.

The effectiveness of breast crawling on early expulsion of placenta was assessed using modified latch breast feeding tool and ongoing assessment tool on observation of expulsion of placenta and blood loss.

Each woman in the control group had been observed and rated as mild, moderate and severe. In assessment of expulsion of placenta and blood loss, 7(23.3%) comes under moderate level and 23(76.7%) comes under severe level. In the experimental group,27(90%) comes under mild level 3(10%) comes under moderate level and no one comes in the severe level.

From table 4.6 it reveals that the mean difference between control and experimental score in the expulsion of placenta and blood loss is 2.23 and standard deviation 1.29,and the 't' value is

13.4, which shows there is significance of breast crawling in the early expulsion of placenta and blood loss in the experimental group.

The third objective was to correlate between the breast crawling technique and early expulsion of placenta and blood loss among women in the experimental group.

Table 4.7 states that out of 30 babies in the experimental group, 10 babies which needed assistance to breast crawl and 17 babies which crawled actively, comes under mild level, 2 babies which needed assistance and 1 baby which crawled actively comes under moderate level and the correlation value was 0.181, which shows that there is significant correlation between breast crawling and in early expulsion of placenta and reduced blood loss in the parturient women.

The fourth objective of the study was to associate the demographic variables with the experimental group.

Table 4.8 implies that there is significant association between the effectiveness of breast crawling technique and expulsion of placenta with weight of the newborn. And there is no significant association between other demographic variables like age, obstetrical score, gestational age, episiotomy wound, gender

of the newborn, weight of the newborn, time to initiate breast feeding and time taken for latching by the newborn in the experimental group.

CHAPTER – VI

SUMMARY AND CONCLUSION

SUMMARY

True experimental research design was adopted to evaluate the effectiveness of breast crawling on early expulsion of placenta and blood loss among women in the third stage of labour which was provided to mothers those who met the inclusion criteria. The study was conducted at Government Headquarters hospital, Kanchipuram. The simple random sampling technique was used to select the samples and the sample size was determined as 60.

Modified latch breast feeding tool was used to assess the newborn's ability to crawl on the mother's abdomen and ongoing assessment scale was done with the rating scale prepared to assess the mothers, neonates, expulsion of placenta and blood loss during third stage of labour and standardized nursing care plan was prepared to render care like monitoring vitals, maintenance of hydration, to promote comfort, rest and monitoring at the abdominal girth, fundal height, uterine action and fetal surveillance, maintenance of nutritional status, perineal care, psychological support and health education.

CONCLUSION

In control group out of 30 mothers, seven(23.3%) comes under moderate level, and 23(76.7%) comes under severe level. In the experimental group, 27(90%) comes under mild level and three(10%) comes under moderate level and no one comes in the severe level in the experimental group.

The mean difference between control and experimental score in the expulsion of placenta and blood loss is 2.23 and standard deviation 1.29,and the ‘t’ value is 13.4, which was compared with tabulated table value at the level of $p<0.05$ was significant. So it has been concluded that the breast crawling on early expulsion of placenta and blood loss was effective among women in third stage of labour..

NURSING IMPLICATIONS

Nursing care is the core of any disease. Holistic nursing care for mother and neonate focused on helping the individual, family and community to achieve the optimal health.

1. The present study can help nurses to enrich their knowledge on nursing care.

2. Understanding the needs may help the nurse to plan and provide appropriate intervention.
3. The present study may help to draw the attention of nurses to build up sound knowledge.
4. Breast crawling technique demonstration classes can be conducted in hospital and maternity and child health centre.
5. Establish the practice of breast crawling as a routine management of third stage labour.
6. Make awareness about effectiveness of early suckling through breast crawling in hospital and maternity centers.
7. Midwives can plan the nursing management and enhance the nurse patient relationship and sense of cooperation, sense of well being of the mother, and baby through the development of mutually agreed goals.
8. Have a written breast crawling policy and training that is routinely communicated to all health care staff.
9. Educate all pregnant women about advantages of breast feeding.

NURSING EDUCATION

1. The curriculum may be reasonable to nurses knowledge in the field of obstetrics, but the nurse educators have the additional responsibility to update their knowledge on early suckling through breast crawling technique on third stage of labour this can be done in collaboration with the nurse administrator by planning and conducting continuing educational programmes.
2. The teachers can work together in clinical area to disseminate knowledge on Breast crawling technique.

NURSING ADMINISTRATION

1. The nurse administrator coordinates her work along with the staffs, to encourage the parturient women for the co-operation of early initiation of breast feeding through breast crawling technique on third stage of labour.
2. Midwifery department should have policy and decision to use breast crawling practice during third stage of labour as one of the essential nursing activity to reduce the duration of third stage labour and reduce the blood loss.

3. Nursing administrator should organize inservice educational programme to staff nurses regarding breast crawling technique on third stage of labour for parturient women.

NURSING RESEARCH

1. The study is a preliminary step for exploring the concept of nurse and enriched nursing care with respect to the involvement of the mother got good fetal outcome.
2. The study will be a valuable reference material for future researcher.

RECOMMENDATION FOR FURTHER RESEARCH

1. A comparative study can be conducted between primigravid and multigravid women on effectiveness of breast crawling technique on third stage of labour.
2. A similar study can be done using the large sample primigravid women.

3. A similar study can be conducted to findout other aspect of effectiveness of Breast crawling technique ,such as mother baby bonding, temperature maintenance, mother's psychology, baby's behaviour, increasing suckling response of the baby.

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APPENDICES

SECTION - I

DEMOGRAPHIC VARIABLES

1. Age of the mother
    a) <20 years
    b) 20-30 years
    c) >30 years

2. Obstetrical score
    a) Primi gravida
    b) Multi gravida

3. Gestational age
    a) <36 weeks
    b) 36-38 weeks
    c) >40 weeks

4. Episiotomy wound
    a) Present
    b) Absent

5. Gender of the newborn
    a) Male
    b) Female

6. Weight of the newborn
    a) <2500 grams

b) 2500-4500 grams

c) >4500 grams

7. Time taken to initiate breast crawl ☐

a) 20 min

b) 30 min

c) c) within 1 hour

8. Time taken for latching, ☐

a) 30 min

b) 1 hour

c) more than 1 hour

SECTION- II

MODIFIED LATCH BREAST FEEDING ASSESSMENT TOOL

I. NEWBORN:

S.NO	CRITERIA	0	1	2
1.	Ability to crawl	Not able to crawl	Mild and slow movements	Good crawl
2.	Latch	No active latch	Latch on alter repeated attempts	Eagerly grasped breast to latch on
3.	Sucking	Did not suckle	Sucked but needed assistance	Sucked rhythmically and lips flanged
4.	Audible swallowing	None	A few with stimulation	Spontaneous and intermittent
5.	Length of time before latch on	More than 60 min	30-60 min	Within 30 min

II.MOTHER:

S.NO	CRITERIA	0	1	2
1.	Type of nipple	Inverted	Flat	Everted
2.	Condition of the breast and nipple	Cracked, bleeding, large bluster or bruises present	Filling, reddened / small blisters or bruises present	Soft normal
3.	Hold (positioning)	Full assistance (investigator holds newborn at breast)	Minimal assistance by investigator	No assistance from investigator mother able to position and hold the newborn
4.	Pain (episiotomy suturing pain, after pain, leg pain)	Severe pain	Moderate pain	Mild pain

TOTAL SCORE:

0-4 = Not able to initiate breast feeding through breast crawl.

5-10 = Need assistance to initiate breast feeding through breast crawl.

11-18 = Actively initiate breast feeding through breast crawl.

SECTION-III

ONGOING ASSESSMENT SCALE

Observation of placental separation and blood loss:

1. Gushing of blood, ☐
    a) Present
    b) Absent

2. Fundal consistency, ☐
    a) Firm to touch
    b) Soft to touch
    c) Relaxed

3. Lengthening of the cord, ☐
    a) <10 cm
    b) 11-15 cm
    c) 16-20 cm

4. Time taken for placental separation after initiation of breast crawling, ☐
    a) 5 min
    b) 6-15 min
    c) 15-30 min
    d) >30 min

5. Total duration of third stage, ☐

a) 5 min,
b) 6-15 min
c) 15-30 min
d) 30 min

6. Blood loss in the third stage of labour, loss in ml

a) 100-200ml
b) 201-300 ml
c) 301-400 ml
d) 401-500 ml

Key note:

Formula for measuring blood loss:

Pre weighed guaze pad = 50 grams.

1 gram = 1 ml of blood loss.

SCHOLAR ASSESSING THE NEW BORN

SCHOLAR INITIATING EARLY SUCKLING THROUGH BREAST CRAWLING TECHNIQUE

SCHOLAR MEASURING THE AMOUNT OF BLOOD LOSS