
“THE ACCEPTANCE OF POST- PARTUM INTRAUTERINE
CONTRACEPTIVE DEVICE-A HOSPITAL BASED STUDY AT
THE TEACHING HOSPITAL ATTACHED TO KAHER’S
J.N.MEDICAL COLLEGE, BELAGAVI.”

By
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CONTRACEPTIVE DEVICE-A HOSPITAL BASED STUDY AT
THE TEACHING HOSPITAL ATTACHED TO KAHER'S
J.N.MEDICAL COLLEGE, BELAGAVI**” is a bonafide research work
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ABBREVIATIONS

BAT	:	Bilateral Abdominal Tubectomy
cms	:	Centimeters
Cu IUCD	:	Copper bearing Intrauterine Contraceptive Device
FP	:	Family Planning
FTND	:	Full Term Normal Delivery
GoI	:	Government of India
IUCD	:	Intra Uterine Contraceptive Device
JSY	:	Janani Suraksha Yojana
LSCS	:	Lower Segment Cesarean Section
MEC	:	Medical Eligibility Criteria
NFHS	:	National Family Health Survey
PG	:	Post Graduation
PPFP	:	Post-Partum Family Planning
PPIUCD	:	Post-Partum Intrauterine Contraceptive Device
PUC	:	Pre-university Course
PV	:	Per Vaginum
VBAC	:	Vaginal Birth after Cesarean section
WHO	:	World Health Organization

ABSTRACT

The acceptance of Post-Partum Intrauterine Contraceptive Device- a hospital based study at the teaching hospital attached too KAHER's J N Medical College, Belagavi.

Background & Objectives:

Post-Partum Intrauterine Contraceptive Device (PPIUCD) forms a chief aspect of family planning predominantly in developing and/or under developed countries. It is a temporary contraception method wherein an Intrauterine Contraceptive Device (IUCD) can be inserted postpartum.

The objective of the study was to assess the acceptance and safety of PPIUCD insertion in participants was conducted at the teaching hospital attached to KAHER's J.N Medical College, Belagavi.

Methods:

This is a descriptive observational study at the teaching hospital attached to KAHER's J.N Medical College, Belagavi from March 2019 to March 2020. A total of 254 women were selected for enrollment based on selection criteria of which 238 were recruited for insertion of PPIUCD. Follow ups were carried out starting at 72h after insertion up till 6 months to assess complications and rates of expulsions and removals of PPIUCD. Data regarding socio demographic and clinical characteristics was collected in form of structured questionnaires and analyzed statistically.

Results:

Acceptance rate of PPIUCD insertions in this study was 66.8%. Amongst the 238 participants who were recruited for PPIUCD insertion, majorities were in the age

group of 21-30 years (84.5%), with mean age estimated to be 24.1±3.2 yrs. Maximum women had secondary level of education (35.7%) followed by intermediate (29.4%) and graduation (24.8%). Statistically significant correlation was established between age and educational qualification with acceptance of PPIUCD insertions. Fear of complications was the reason given by highest number of participants (36.5%) for not accepting PPIUCD. Another 24.6% of the participants declined PPIUCD due to religious beliefs. Interest in other methods of contraception, unwillingness of spouse and relatives or delays in use of contraception right after delivery were some of the other reasons for non-acceptance of PPIUCD. Anemia accounted for 40% ineligibility. Majority of the complications noted were lower abdominal pain and excessive PV bleeding. PPIUCD removal rate was 12.6% in the present study. Abdominal pain and PV bleeding were the most common reasons for removal of PPIUCD in this study. Amongst the 238 participants with PPIUCD insertions, expulsion of inserted PPIUCD was observed in 7 participants placing the expulsion rate in this study to be 3.3% which was lower to reported literature. Maximum rates of expulsion were observed in cases where PPIUCD was inserted after vaginal deliveries as compared to Caesarean insertions.

Conclusion:

It is evident from this study that PPIUCD as a method of contraception is long lasting and reversible and if mediated immediately after delivery, confers several advantages. The acceptance rate of 66.8% is due to effective counselling, higher (80%) educational qualification (more than 10 years and above), higher (84.5%) age group (21-30 years). Majority of the participants opted for removal of PPIUCD due to lower abdominal pain and excessive PV bleeding. Expulsion rate was 3.3% which is

comparable to interval insertions of IUCD. 191 participants (83.7%) continued to have PPIUCD.

Key words: Post-Partum Intrauterine Contraceptive Device, Acceptance of PPIUCD, post insertion complications of PPIUCD.

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INTRODUCTION

Post-Partum Intrauterine Contraceptive Device (PPIUCD) forms an important aspect of Family Planning (FP) particularly in developing countries. It is a temporary contraceptive method wherein an Intrauterine Contraceptive Device (IUCD) can be inserted before 48 hours postpartum¹. FP is an essential component of health care as it confers numerous benefits including improved health, economic and social outcomes for women and families². It is particularly critical in developing countries with high rate of population growth where access to safe and voluntary FP helps in delaying, spacing and limiting pregnancies thereby lowering healthcare costs and ensuring long term good health for the mother and child. India was the first country in the world to launch FP program in 1952 and this program has now evolved to be a critical intervention to reduce maternal and child mortality and morbidity³.

With 1.3 billion people, India is the world's second most populous nation, contributing to 17.5% of the world's population and 25 million births are added every year. Despite of the long running FP program, it has been estimated that nearly 20.7% of the Indian population have unmet needs for FP with 65% of the needs in the first year of postpartum period. Ignorance, lack of adequate knowledge or wrong information and beliefs are common hurdles in acceptance of contraception^{4,5}.

While FP is important throughout an individual's and couple's reproductive life, Post-Partum Family Planning (PPFP) focuses on the prevention of unplanned and closely spaced pregnancies through the first 12 months following childbirth⁶. Postpartum women are among those with the greatest unmet need for FP. Although it is recommended that the ideal interval between births should be 36 months, 61% of births in India occur at birth to birth intervals less than 36 months, of which 1/3rd occur

within 24 months of a previous birth and 2/3rd occur between 24 & 36 months⁷⁻⁹. Pregnancies taking place within 24 months of a previous birth have a higher risk of adverse outcomes like miscarriages, premature labor, post – partum hemorrhage, low birth weight, fetal loss and maternal death. Therefore the need for effective contraceptive methods is imperative for postpartum women and for this reason promoting and implementing PPF has been one of the goals of government FP program.

Delivery is the ideal time where healthy women come in contact with health care providers and the women are highly receptive and motivated for FP during this period¹⁰. The postpartum period presents an excellent window of opportunity to provide FP counselling and methods to women particularly in developing countries where access to post natal follow up is limited. Contraceptive methods adopted during the immediate postpartum period safeguard women from unintended pregnancy before they resume sexual activity, which is often within 8 weeks of delivery¹¹.

Contraceptive methods suitable for postpartum women include intrauterine contraceptive devices (IUCDs), barrier methods, oral contraceptives, implants, injectables and sterilization¹². Among the options available, Intrauterine Contraceptive Devices (IUCD) are the oldest and most cost effective methods of contraception and is most commonly used by women to space births. Modern IUCDs, like Copper T380A, is a highly effective, safe, private, long-acting, coitus independent and rapidly reversible method of contraception with few side effects^{13,14}.

PPIUCD, which is the insertion of IUCD in the immediate postpartum period, is being promoted in a larger way in developing countries like India and is also preferred by several women who have been properly counseled. This method of

contraception is long lasting and reversible and if mediated immediately after delivery, confers several advantages. Immediately after delivery, women are highly motivated to adopt a long lasting method of contraception. Since this process can be carried out at the delivery table, extra evaluation and clinical procedure is not required. IUCD administration requires the woman to be non-pregnant, which is guaranteed post-delivery, thereby making PPIUCD convenient and safe. PPIUCD is highly effective in preventing pregnancies within the first year of delivery and helps in achieving required space between births. This method is non-hormonal and can be safely used by all women regardless of breastfeeding status, unlike other methods of contraception. Apart from that, the risk of sexually transmitted infections are low in the immediate postpartum period thereby reducing the infection rate following IUCD insertion. There is low risk of uterine perforation and this process does not affect quantity or quality of lactation. Evidence on safety and feasibility of PPIUCD insertions have been provided by Cochrane review¹⁵.

PPIUCD insertion is mediated via post placental IUCD insertion, the immediate postpartum IUCD insertion and trans-cesarean IUCD insertion. Following vaginal delivery, post placental IUCD insertion is performed within 10 minutes of placental expulsion, according to World Health Organization (WHO) guidelines. Immediate postpartum IUCD insertion is done within 48 hours of delivery and the trans-cesarean IUCD insertion is carried out after a caesarean delivery before the uterine incision is sutured¹⁶.

In recent times, increasing number of women in India are preferring hospitals for delivery. In this regard, JananiSukraksha Yojana (JSY), a provisional cash allocation scheme, was initiated in 2005 by the Government of India (GoI) with an

aim to encourage the use of hospital facilities for delivery and postpartum care ¹⁷. Provision for facilitating PPIUCD has been implemented in several states since initiation of JSY and training for clinicians and health care providers are undertaken to increase the reach of this FP method. PPIUCD insertion helps women leaving the hospital with contraception after institutional delivery and decreases costs incurred by couples who may otherwise have to return to facilities to access contraceptive services¹⁸.

PPIUCD is still a relatively new method of FP. Despite numerous advantages, only 2% of contraception users in India use IUCDs ¹⁹ and this in turn reflect the acceptance level of PPIUCD. The belief that PPIUCD insertion immediately after delivery is associated with higher expulsion rates is an important reason for non-acceptance. Findings from other studies showed that lack of information and consciousness about the method, lack of trained clinicians, preference for short-acting contraceptive methods, spousal opposing and fear of complications were the main reasons for not accepting PPIUCD use ^{20,21}. Other factors such as limitations on women's mobility mostly due to cultural or geographical factors also contribute to non-acceptance of PPIUCD.

In order to improve acceptance of PPIUCD, antenatal counselling of the couple regarding possibility of conception during lactational amenorrhea, morbidities related with consecutive conceptions and the ease of birth spacing with PPIUCD insertion is very crucial. In many cases, women seek the agreement of spouse before taking a decision regarding FP and therefore effectiveness of PPIUCD counselling can only be ensured if the couple is counseled together. PPIUCD counselling throughout the antenatal period by the care provider, elaborating the benefits of

PPIUCD usage, clearing doubts and apprehensions of mother over PPIUCD and its complications is one of the major factors for successful usage of PPIUCD.

Although several studies have been carried out at different tertiary health care facilities, there are no adequate studies on PPIUCD in larger population in Belagavi region. It is therefore significant to understand the aspects of PPIUCD in a hospital setting at Belagavi.

OBJECTIVES

Based on lacuna in literature, the objectives of the present study are as follows:

Primary Objective:

- To find out the acceptance rates of PPIUCD insertion among parturients.

Secondary Objectives:

1. To find out the rates of complications (lower abdominal pain, excessive per vaginal bleeding, foul smelling vaginal discharge, fever, uterine perforation, any displacement of PPIUCD /removal) during first 6 months following PPIUCD insertion.
2. To determine the rates of expulsion following PPIUCD insertion

REVIEW OF LITERATURE

According to the WHO, family planning (FP) is defined as “the ability of individuals and couples to anticipate and attain their desired number of children and spacing and timing of their births. FP is achieved through use of contraceptive methods”²². It helps couples avoid unintended pregnancies, reduces the spread of sexually transmitted diseases (STDs) and thereby reducing rate of infertility.

PPFP is defined as the prevention of unintended pregnancies and closely spaced pregnancies through the first 12 months following childbirth. Since morbidity and mortality rates are quite high during the postpartum period and women are vulnerable to unintended pregnancy it is one of the critical times when special and integrated health packages are mandated²³. PPFP has vital role in developing policies to reduce the unmet need for FP. An analysis of demographic and health survey data from 27 countries showed that 95% women who are 0–12 months postpartum desired to avoid pregnancy in the next 24 months but 70% of them do not use any contraceptives²⁴.

PPFP is essential and effective due to the following reasons:

1. Women and/or couples are highly driven and more approachable to FP methods right after delivery.
2. Conceiving within/less than 24 months of delivery invites higher probabilities of complications like abortions, pre-term labor, postpartum hemorrhage, low birth weight babies, neonatal morbidity and mortality²⁵. This can be mitigated by PPFP.

3. More than 30% of maternal deaths and 10% of child mortality can be averted if couples space their pregnancies more than 2 years²⁶.
4. It helps women to overcome malnutrition and deficiencies which are often associated with immediate conception after delivery.

WHO has formulated a recommendation for contraceptive method to be used during the first year postpartum (and beyond) which is within the Medical eligibility criteria for contraceptive use (MEC)²². According to this, condoms or spermicides can be used by all women immediately after delivery. After 4 weeks of delivery, IUCD and emergency contraception can be used and methods like female sterilization and diaphragm/cervical caps can be used after 6 weeks of delivery. Women who are exclusively breastfeeding can use the lactational amenorrhea method (LAM) and other methods like progesterone only method and combined hormonal methods after 6 weeks and 6 months respectively.

Amongst all these methods, IUCD is one of the most cost effective options available to couples. It is a highly effective, non-hormonal method and can be safely used by all women irrespective of breastfeeding status during the postpartum period²⁷. PPIUCD insertion offers several advantages for use in postpartum period as it is an effective, long term, reversible, non-coital contraceptive method and does not interfere with breastfeeding²⁸.

History of IUCD

The first documentation of IUCD for humans was in 1909, when Dr. Richard Richter reported on his insertions of a silkworm gut ring into the uterus²⁹. In 1962, Dr. Jack Lippes developed and inserted the Lippes Loop, a plastic device, which was pushed through an inserter tube just like the coil and has a string attached, to

facilitated detection and removal³⁰. In 1969 Dr. Howard Tatum devised a simple plastic T shaped device, which was well accepted but had a pregnancy rate of 18%. That same year the contraceptive effect of intrauterine copper was discovered by Dr. Jaime Zipper in his experiments with copper wire in rabbit uterus, which revolutionized IUCD effectiveness. This was followed by development of hormone releasing IUCDs and modified devices with levonorgestrel-releasing system.

Types of PPIUCD used in India

Copper containing intrauterine device(Cu IUCD) is a small, flexible plastic frame containing copper. Currently 2 types of Cu IUCDs are in usage in India:

- i. Cu IUCD 380 A (CuT 380A)
- ii. Cu IUCD 375

CuT380A is a T shaped polyethylene device impregnated with barium sulphate (Figure 1). It measures 3.6 cm long and 3.2 cm wide and vertical stem and horizontal arms of this device are wound with copper wire with surface area of 380 sq.mm. It appears opaque on radiologic imaging. The strings are also made up of polyethylene. This device is effective for 10 years from the day of insertion.

Cu IUCD 375 is an inverted U shaped device with a flexible arm (Figure 2). Like CuT380A it is also made up of polyethylene impregnated with barium chloride. This device measures 3.5 cm long and 1.8 cm wide and 5 stubs on each side on the “U”. However, unlike CuT380 A, Only vertical stem is wound with copper wire for Cu IUCD 375 and the surface area for copper measures 375 sq. mm. The strings for this device are fluorescent green and made up of monofilament nylon threads. This device is shorter acting and is effective for 5 years from the day of insertion.

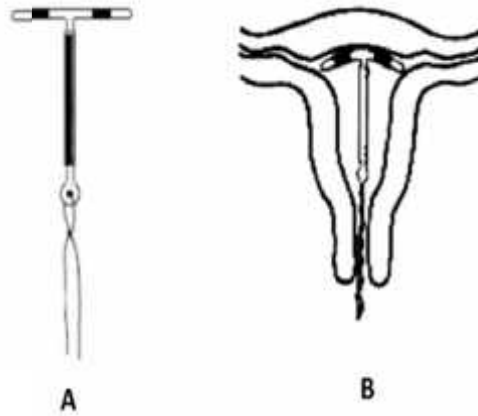


Figure 1: Cu IUCD 380 A (A) Structure of the device (B) Device inside the Uterus

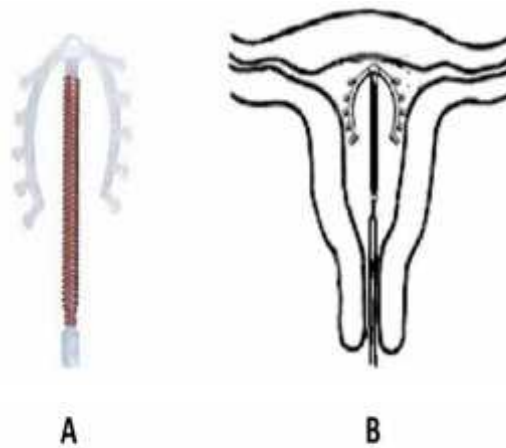


Figure 2: Cu IUCD 375 (A) Structure of the device (B) Device inside the Uterus

Mechanism of action of Cu IUCDs

Cu IUCDs act by preventing fertilization and also by preventing implantation of fertilized zygote. The primary action of Cu IUCDs in preventing conception is by acting as effective spermicides. Free copper leaches from the device into the uterine cavity, which acts upon sperms and impairs sperm mobility. This prevents the sperms to enter uterine cavity and fertilise egg. Cu IUCDs induce copper ions mediated inflammatory reaction in the endometrium ¹⁴.

Cu IUCDs also change the consistency of cervical mucus making it viscid and unfavourable for ascent of sperm into the uterine cavity and prevents the chance of fertilization. Apart from that, free copper can also act on the oocyte and ovum and affect their functional capacity and ability to undergo fertilization and form a normal zygote. The presence of intrauterine device interferes with the endometrial growth and receptivity for implantation ³¹.

ACCEPTANCE OF PPIUCD IN INDIA

In India, PPIUCD was incorporated into the public health services by GoI in 2010 ³². It is known that the acceptability of contraceptive methods is fundamental to correct and consistent utilization of contraceptives and it determines the continued utilization of the chosen contraceptive method ³³.

Acceptance rates for PPIUCD insertion were found to be 14-42% in most of the studies ^{7-10, 21, 34, 35}. Higher acceptance rates of 53.3% and 66.6% have also been reported in few studies ^{36, 37}. Low acceptance levels (8.85%) have been reported in some studies ³⁸. The variation in acceptance rates can be attributed to parameters like level of awareness, educational level of women, religious beliefs, locality, socio-

demographic characteristics and various misconceptions about PPIUCD insertion³⁹. Age, education level and parity are important factors which determine acceptance of PPIUCD. Highest rate of acceptance has been reported among age group of 21-25 years^{34, 36, 40-42}. In some studies however, acceptance was higher in age groups of 30-39^{42, 35}. Higher acceptance rates were found in women with higher education as compared to illiterates. A higher acceptance rate was also observed among multipara and those who had a desire for future pregnancy after an interval of more than 2 years^{21, 43-46}.

One of the most common reasons found for non-acceptance of PPIUCD has been reported to be general apprehension which accounted for almost one third of reasons. Other reasons for refusal were fear of complications, refusal of spouse or the mother-in-law⁴⁷.

PPIUCD insertions via different routes (vaginal or caesarean) may have different outcomes at follow-up. Removal rate of PPIUCD was higher in post-placental insertion i.e. 43 (17.2%) cases whereas in intra-caesarean insertion removal rate was 8.4%⁴⁸.

The expulsions were significantly higher in post-placental IUCD insertions after vaginal deliveries as compared to caesarean insertions in several studies^{12, 49}. In a study by Goyal and Wadwani comparing the two methods, it was observed that expulsion rate was more in post-placental insertion group i.e. 13.2% while among intra-caesarean group it was 6.8%, the difference being statistically significant⁴⁸. Similar trend was observed in another study where expulsion rate was 4 % in the vaginal group and 2 % in intra-caesarean group⁵⁰. On an average, most recent studies

showed wide variability in expulsion rates, ranging from 2% to 27% for vaginal delivery and 0% to 20% for caesarean⁵⁰⁻⁵³.

Most commonly reported complications were nonspecific pain (94.79%) excessive bleeding (1.51%)¹⁰ and foul smelling vaginal discharge (0.8%)⁵⁴. However the reported studies did not show any case of uterine perforation following insertion of PPIUCD.

MATERIALS AND METHODS

Study design:

A hospital based descriptive longitudinal study.

Study period:

The study was conducted for a period of approximately 18 months. This included 12 months for enrolment (March 2019 to March 2020) and 6 months for follow up and data analysis. (April 2020 to September 2020)

Source of data:

The study population consisted of all antenatal patients admitted at around 37 to 40 weeks of gestation to labor ward or antenatal ward at the teaching hospital attached to KAHER's J.N Medical College, Belagavi during the study period fulfilling the selection criteria and consenting to participate in the study. Mode of delivery was either vaginal, instrumental or by caesarean section.

Sample size:

Sample size was obtained by the formula:

$$n = Z^2 pq / d^2$$

Where:

n = sample size

$Z = 2.58$ corresponding to 99% confidence interval

p = proportion of participants accepting PPIUCD

d = margin of error set at 5%

The sample size attained was:

$$n = 2.58 \times 2.58 \times 14 \times 86 / 25 = 320$$

Selection criteria

Inclusion criteria:

All antenatal patients admitted at around 37 to 40 weeks of gestation to labour ward or antenatal ward at the teaching hospital attached to KAHER's J.N Medical College, Belagavi whose consent was obtained were included. During enrolment the following criteria were considered for inclusion:

- Women who had delivered in labour ward at the teaching hospital attached to KAHER's J.N Medical College, Belagavi.
- Maternal age between 19-40 years.
- Gestational age at the time of delivery: 37-41 weeks.
- Haemoglobin 10g/dl at delivery.
- Willing for Cu-T insertion by providing consent.
- Singleton or multiple pregnancies.
- Delivery by normal vaginal delivery or by caesarean section.

Exclusion criteria:

- Patients not willing for IUCD insertion
- Fever during labour or delivery (Temperature $>38^{\circ}\text{C}$ during or after labour).
- History of active sexually transmitted disease.
- Ruptured membranes for >18 hours prior to delivery.
- Diagnosed to have uterine anomalies.
- Diagnosed to have Post-Partum Haemorrhage.
- Known to have copper sensitivity (in case of prior use).
- Individuals who cannot read and write.
- Women willing for permanent methods of sterilization.

Ethical clearance:

Prior to the commencement, the study was approved by the Ethical and Research Committee, Jawaharlal Nehru Medical College, Belagavi.

(Annexure 1 - Letter number MDC/DOME/65 dated 24/11/2018)

Informed consent:

All the participants fulfilling the selection criteria were explained about the purpose of the study and a written informed consent in their own vernacular language was obtained before enrolment.

Method of collection of data:

Women admitted for delivery at the hospital were counseled during antenatal period (in the wards) or in early labor along with their partners or relatives/attendants. The women fulfilling the selection criteria were enrolled in the study after obtaining their informed consent. The baseline information including the details of residence and the obstetric details were collected. PPIUCD was inserted after delivery of the placenta in normal vaginal delivery and cesarean section by operating surgeon under sterile conditions. Cu-T card with details of the PPIUCD and investigator were provided to the women for follow up visits. Women were advised to attend postnatal clinic for follow ups and during follow ups the presence of Cu-T was verified, patients were treated symptomatically and reassurance was given about the safety of PPIUCD.

Women in whom the PPIUCD was inserted were assessed and followed up at 72 hours, 6 weeks, 3 months and 6 months post insertion. Upon discharge a Cu-T follow up card was given which contained information of the date of insertion and follow up visit, type of IUCD inserted, date of expiry of the IUCD and contact details

of the principal investigator. The women were advised to visit the hospital any time if she had any concern or experiences any warning sign or if the IUCD is expelled.

During follow up, PPIUCD recipients were re assessed at the postnatal clinic. The follow up checklist was filled by checking their oral temperature (if complaints any) and an abdominal examination for suprapubic tenderness and involution of the uterus was done. A speculum examination was then performed to check if the strings were visible and any discharge noted. A digital vaginal examination was then done to assess for cervical motion tenderness. Those women who had a pelvic infection were treated with antibiotics as required. Women who reported expulsion of the IUCD or those whom their strings were not visible had a pelvic ultrasound to confirm expulsion.

Insertion techniques

Upon receiving consent of the participant, PPIUCD was inserted within 10 minutes of delivery, vaginal or caesarean. Insertion of PPIUCD was carried out in the delivery room. The procedure for insertion of PPIUCD following vaginal delivery and delivery by Lower Segment Cesarean Section varies considerably and has been discussed below.

Steps followed for post-placental insertion of PPIUCD following vaginal delivery:

- All necessary equipment for PPIUCD insertion were arranged on a table covered with a sterile drape. Requirements included Cu-T 380 A, Kelly's forceps, Sims' speculum, adequate light source, povidone iodine solution, kidney tray and cotton swabs.

- Following delivery of baby and ensuring complete delivery of placenta, insertion of PPIUCD was performed by the principal investigator using forceps. The patient was placed in a lithotomy position. Aseptic techniques were used throughout the procedure.
- Uterus was palpated to check whether it was well contracted and retracted and to evaluate the height of the fundus in order to assess if the strings are likely to protrude through the cervix after insertion. The perineum, labia and vaginal walls were also inspected for lacerations.
- After performing the appropriate hand hygiene a pair of sterile gloves was worn. The perineum was cleaned with disinfectant then a clean sterile drape was kept.
- Sims' speculum was gently inserted into the vagina depressing the posterior vaginal wall to visualize the cervix. The cervix and the vaginal walls were cleaned twice with cotton swabs soaked in povidone iodine solution.
- The anterior lip of the cervix was gently grasped with the sponge holding forceps.
- The IUCD was removed from the insertion sleeve and grasped with the Kelly's forceps using no-touch technique.
- Applying gentle traction on the anterior lip of the cervix with sponge holding forceps, IUCD was inserted in to the lower uterine cavity and the Kelly's forceps was moved upward towards the fundus of uterus as confirmed by palpation with a hand placed on the abdomen overlying the fundus. After confirming that the end of the forceps had reached the fundus of the uterus, the forceps were opened to release the IUCD. Uterus was stabilized until forceps removal was completed.

- Cervix was then examined using Sims' speculum to ensure that the IUCD was not protruding from the cervix. If the device was seen protruding, it was reinserted. Strings were always visible at the cervix after the procedure.

Steps followed for post-placental insertion of PPIUCD during caesarean section

- After delivery of the baby and after ensuring complete placental delivery uterus was exteriorized and examined to rule out any malformations and was stabilized by grasping it at fundus.
- IUCD was removed from insertion device and positioned at the edge of a sterile ring forceps/sponge holder.
- IUCD was then inserted into the uterus through uterine incision and was released at fundus of uterus. Enough care was taken not to dislodge IUCD as hand was removed. Strings were guided towards the lower uterine segment (cervix) without disturbing IUCD's fundal position.
- Care was taken during caesarean delivery so that strings were directed towards lower uterine segment and it did not come in between during suturing of uterus.

In both the cases, the patient was assessed if they were comfortable or not and reassured on the procedure before discharge.

The participants wanting removal of PPIUCD within the study period were considered as discontinuations in the study.

Instruments tray:



Statistical Analysis:

Data obtained from structured questionnaires was analyzed using R software version 3.6.2 and Excel. Categorical variables have been given in the form of frequency tables. Categorical data was compared using chi-square test. Paired data were compared using Cochran Q test followed by pair wise McNemar test with “fdr” adjustment. P value<0.05 was considered as significant in all cases.

Definitions of key operational terms:

Accept: Participants who the insertion of the PPIUCD within 48hours of delivery.

Decline: Participants who didn't consent for insertion of PPIUCD after delivery.

Excessive PV bleeding: Participants' previous menstrual history was compared to present menstrual history.

Expulsion of the IUCD: Expulsion refers to non-visualisation and non-detection (by ultrasound) of either the stem or the strings of PPIUCD at the cervical canal. This also includes women who report visual expulsion of the PPIUCD. The expulsion of the PPIUCD was confirmed by a pelvic ultrasound in all reported cases of expulsions.

Pelvic infection: A definitive diagnosis of pelvic infection was made if the participant presented oral temperature of 38°C or higher before vaginal examination and suprapubic tenderness with guarding. Cervical motion tenderness during vaginal examination or a unilateral or bilateral adnexal tenderness were the criteria for pelvic infection.

Displacement: This refers to the non-visualisation of strings of the PPIUCD despite of confirmation of the in-situ presence of PPIUCD by X-ray or ultrasound.

Perforation: Perforation refer to the condition when the PPIUCD is diagnosed to be outside the uterine cavity by X-ray or ultrasound after non-visibility of the strings.

RESULTS

The study was conducted at teaching hospital attached to KAHER's J.N Medical College Belagavi, with approximately 400 deliveries every month and an attendance of 150 antenatal women in the outpatient department every day from March 2019 to March 2020.

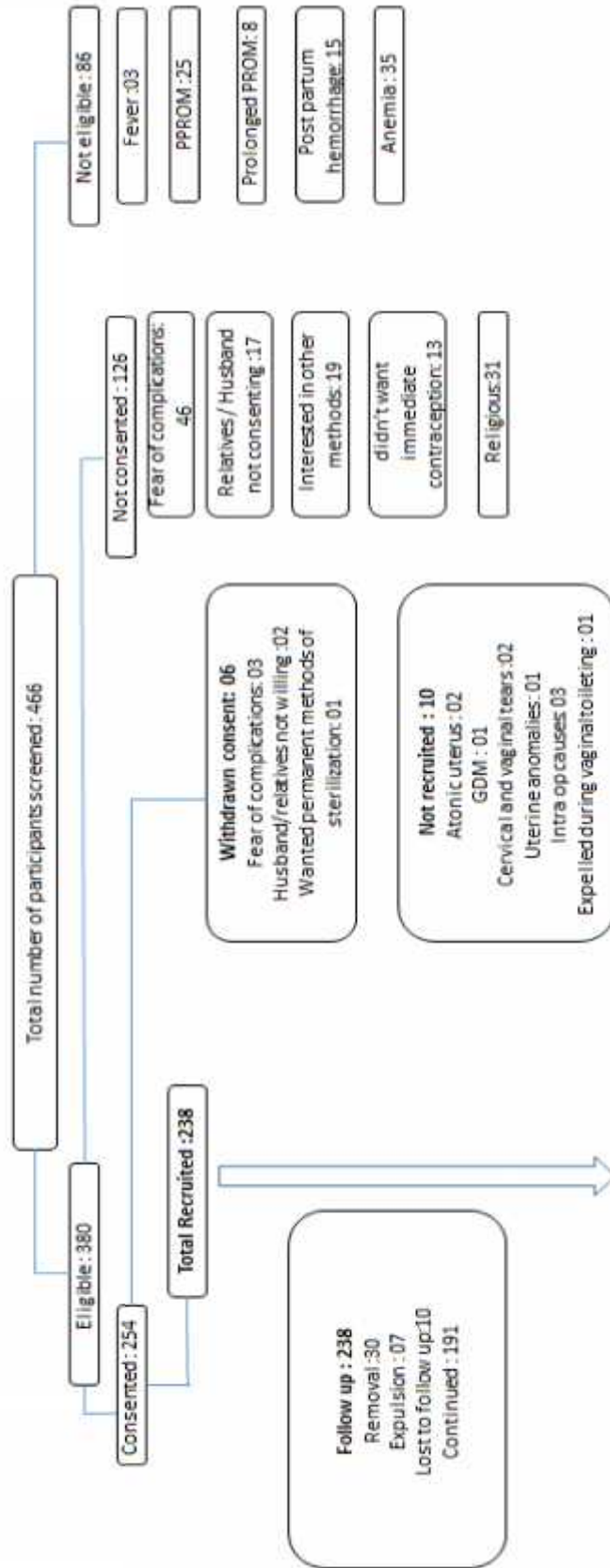
Recruitment of study participants

The total number of participants screened for this study were 466. The participants were counseled for PPIUCD insertion during antenatal period or during labor (up to 6 cms cervical dilatation as per WHO study criteria). Out of 466 screened, 380 participants were eligible for the study, of which 254 women consented (66.8%) for participation among which 238 (93.7%) were recruited and 16 (6.3%) were excluded (Table 1). However, it was observed that 126 (33.2%) participants were eligible but were not willing to consent due to various reasons.

Total of 228 participants were followed up while 10 participants were lost to follow up.

The data obtained was coded and entered into the Microsoft Excel spreadsheet. The data was analyzed and the following results were obtained.

STROBE Diagram (Strengthening the Reporting of Observational study in Epidemiology)



	Removal	Expulsion
Within 72 hours	01	01
6 th week	07	03
3 rd month	10	02
6 th month	12	01
	30	07

Table 1. Recruitment of study participants and distribution based on consent obtained and selection criteria

Total no of screened participants	466
Total no of eligible participants	380
Total no of consented participants	254 (66.8%)
Total no of recruited participants	238(93.7%)
Total no of participants not given consent	126(33.2%)
Total no of ineligible participants	86(18.4%)

Amongst the eligible participants, 66.8% accepted PPIUCD insertion and 33.2% of the participants didn't accept for PPIUCD insertion. Those women whom the PPIUCD was inserted were followed up at 72 hours, 6 weeks, 3 months and 6 months. 10 women were lost to follow up at 6 weeks and beyond, thus 228 were examined at follow ups after insertion of IUCD.

Reasons for not consenting to PPIUCD insertions among participants

As mentioned earlier 126 participants met the selection criteria but were not willing to consent to PPIUCD insertion due to various reasons. Fear of complications was the reason given by highest number of participants (36.5%) as the primary factor for not accepting PPIUCD (Table 2). 31(24.6%) of the participants declined PPIUCD due to religious beliefs. Among the remaining participants who declined insertion of PPIUCD, majority of them were not willing to adopt the method due to their preferences to other methods (15.08 %). 17 (13.5%) of the participants cited unwillingness of spouse or relatives as the reason for declining

PPIUCD. Some of the participants (10.3%) did not need immediate contraception, hence did not want to use PPIUCD as the contraceptive method.

Table 2: Reasons for not consenting to PPIUCD insertions among participants.

Reason for not willing to consent	No. of participants (%)
Fear of complications	46 (36.51%)
Religious	31 (24.6%)
Interested in other methods	19 (15.08%)
Partner/relatives not willing	17 (13.49%)
Did not want immediate contraception	13 (10.32%)

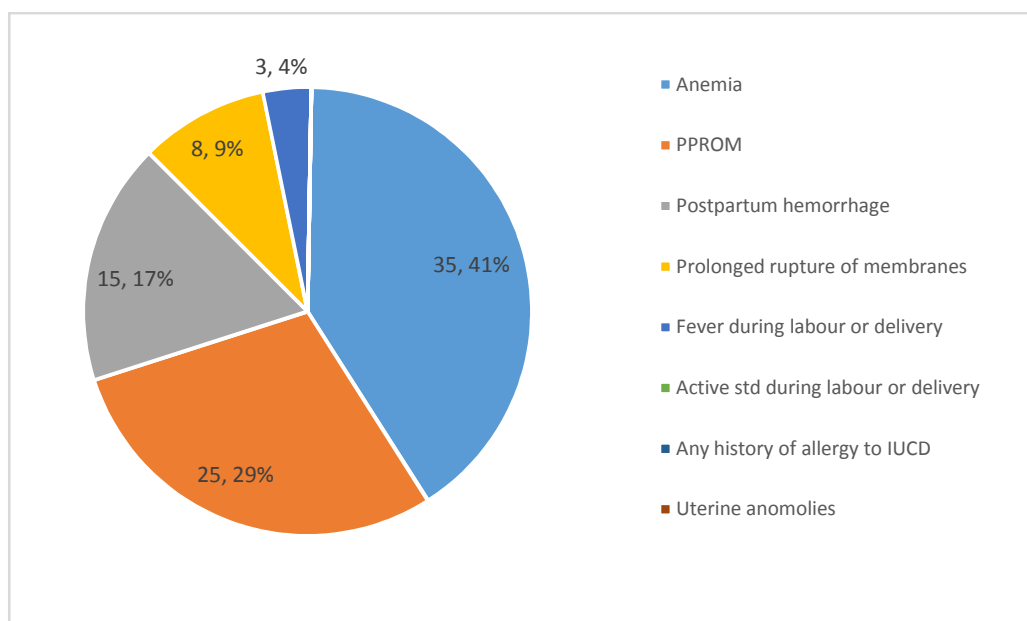
Distribution of ineligible participants by selection criteria

Distribution of ineligible participants based on the selection criteria has been given in Table 3. Out of 86 ineligible participants, 35(40.7%) and 25(29.1%) had anemia and preterm premature rupture of membranes (PPROM) respectively followed by 15(17.4%) who had postpartum hemorrhage. It was also observed that 8 (9.3%) of the candidates had prolonged term rupture of membranes and fever during labor or delivery was detected in 3 (3.5%) of the participants due to which they were not included in the study. None of the participants presented with active STD during labor or delivery and none of them had any history of allergy to IUCD or uterine anomalies (Figure 3).

Table 3: Distribution of ineligible participants by selection criteria

Eligibility Criteria	No. of participants (%)
Anemia	35 (40.7%)
PPROM	25 (29.07%)
Postpartum hemorrhage	15 (17.4%)
Prolonged rupture of membranes	8 (9.3%)
Fever during labor or delivery	3 (3.5%)
Active STD during labor or delivery	0 (0%)
Any history of allergy to IUCD	0 (0%)
Uterine anomalies	0 (0%)

Figure 3: Chart showing distribution of ineligible participants based on eligibility criteria



In order to evaluate the correlation between PPIUCD acceptance and factors influencing decision for acceptance, demographic statistics of data is shown below.

Table 4: Age wise distribution of study participants

Age groups	Number	%
20yrs	28	11.72
21-30yrs	201	84.53
31yrs	9	3.75
Total	238	100.00
Mean age	24.10± 3.21	

From table 4, it has been observed that majority of the participants(84.54%) in the study were in between “21-30 years” of age whereas least number of them (3.75%) were in the age group “ 31” years. Also, the mean age in the study was 24.10 ± 3.21.

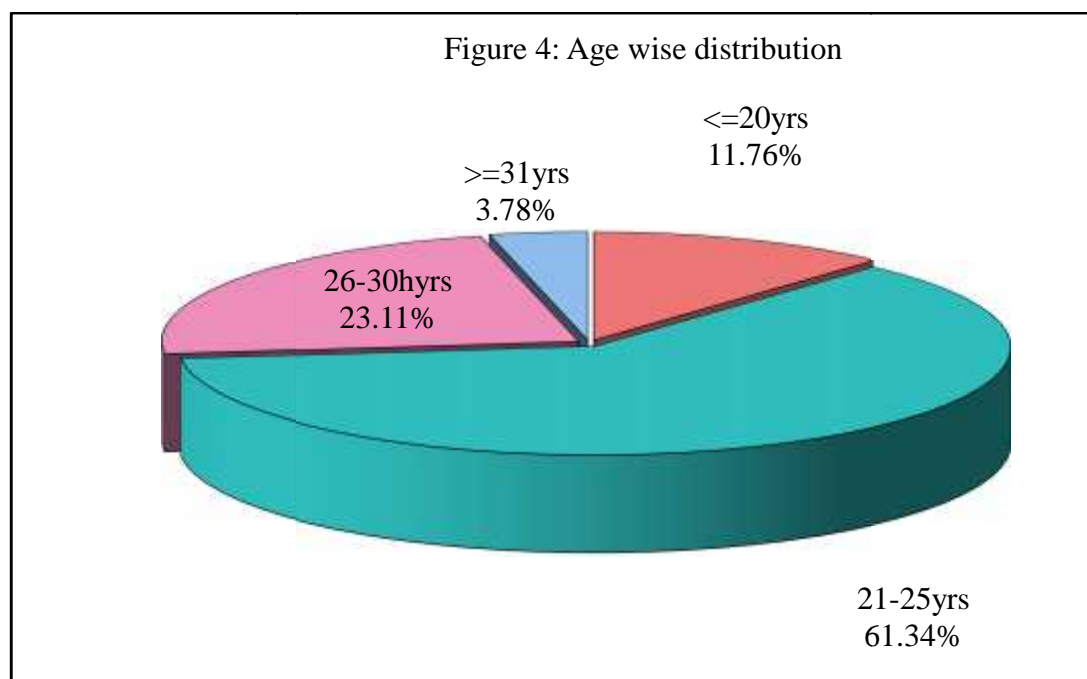


Table 5: Education wise distribution of study participants

Education level	Number of subjects	%
Illiterates	8	3.36
Primary	27	11.34
Secondary	61	25.63
PUC	73	30.67
Degree	61	25.63
PG	8	3.36
Total	238	100.00

From table 5, we observed that among the total participants, 27(11.34%) have primary education while 203(85.2%) have secondary/ tertiary education and 8(3.36%) of them were illiterates.

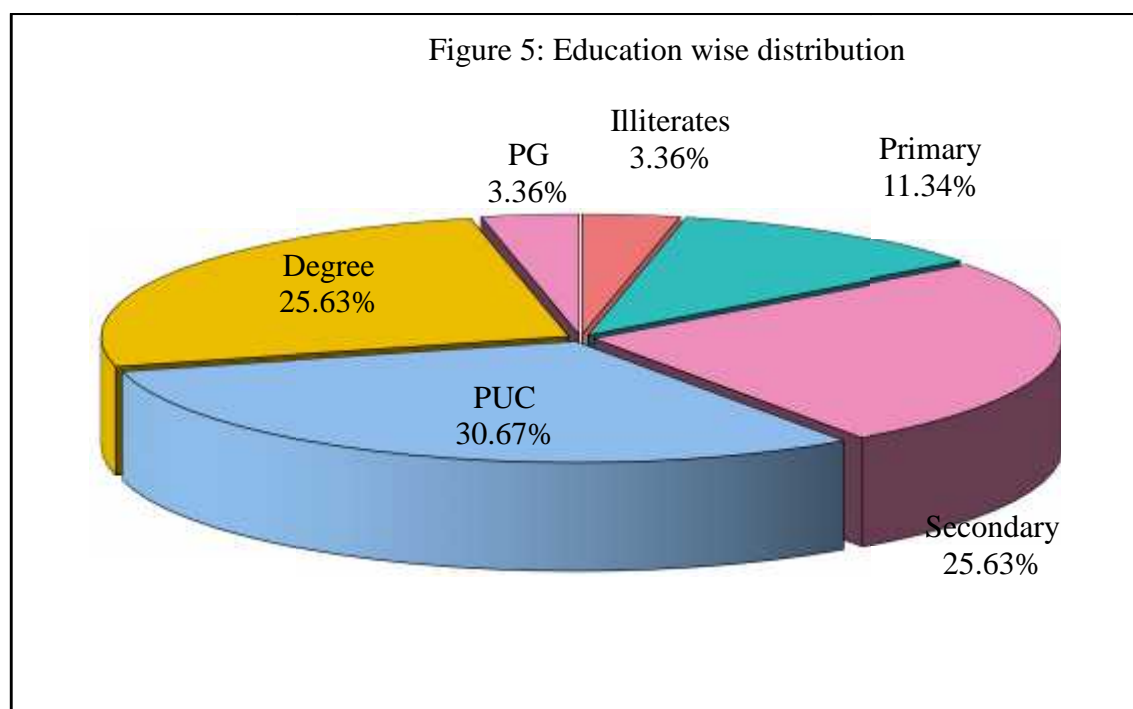


Table 6: Gestational period wise distribution of study participants

Gestational period	Number	%
37.00-40.00weeks	187	78.57
40.01weeks	51	21.43
Total	238	100.00
Mean	38.54	

Among the total participants, 187(78.57%) were term participants and remaining 51(21.43%) were with gestational period more than 40 weeks. Mean gestational period was approximately 38weeks 5 days.

Table 7: Parity wise distribution

Parity	Number of subjects	%
Primiparas(para 1)	146	61.34
Multiparas	92	38.66
Para 2	79	33.19
Para 3	11	4.62
Para 4	2	0.8
Total	238	100.00

From table 7, it was observed that among 238 cases, 146(61.34%) were primiparas and 92(38.66%) were multiparas among whom 79(33.19%) were para 2, 11(4.62%) of them were para 3 and 2(0.8%) of them were para 4.

Table 8: Distribution of study participants based on time of counselling

Time of counselling	Number of subjects	%
Antenatal(in the ward or labour room)	39	16.39
1-2cm	124	52.10
3-4cm	48	20.17
5-6cm	18	7.56
Immediate postpartum	9	3.78
Total	238	100.00

From table 8 it was observed that total of 190 (80%) participants were counseled in early labor (till 6 cm cervical dilatation) and 9(3.78%) of them were counseled immediately postpartum and remaining 39(16.39%) of them were counseled during antenatal period.

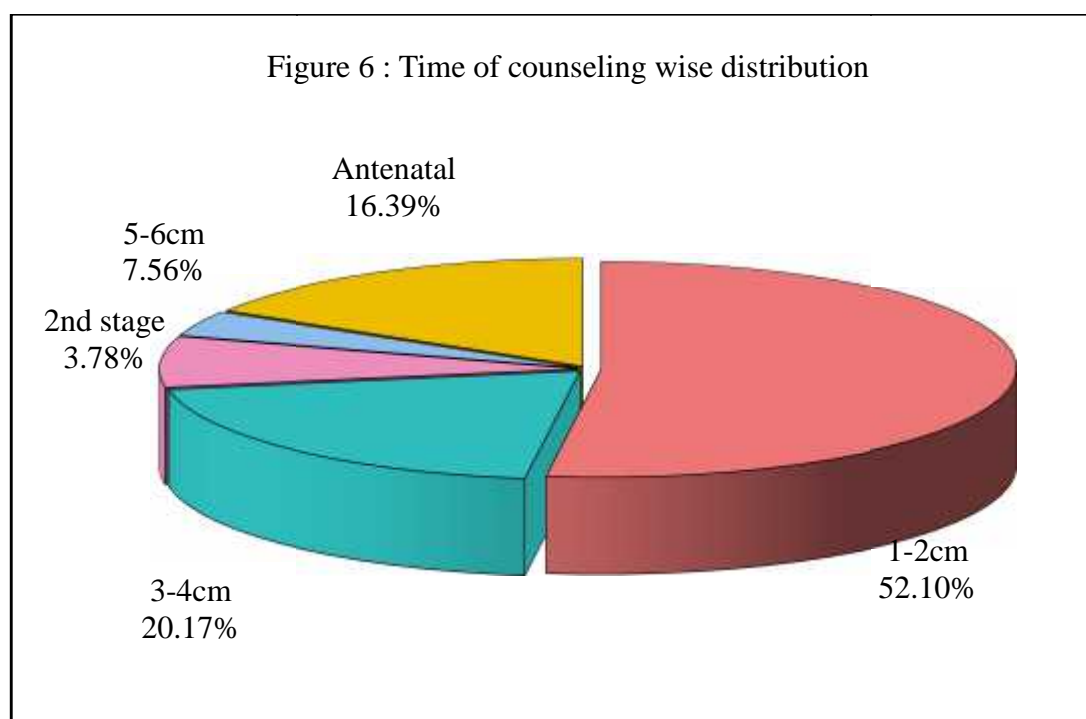
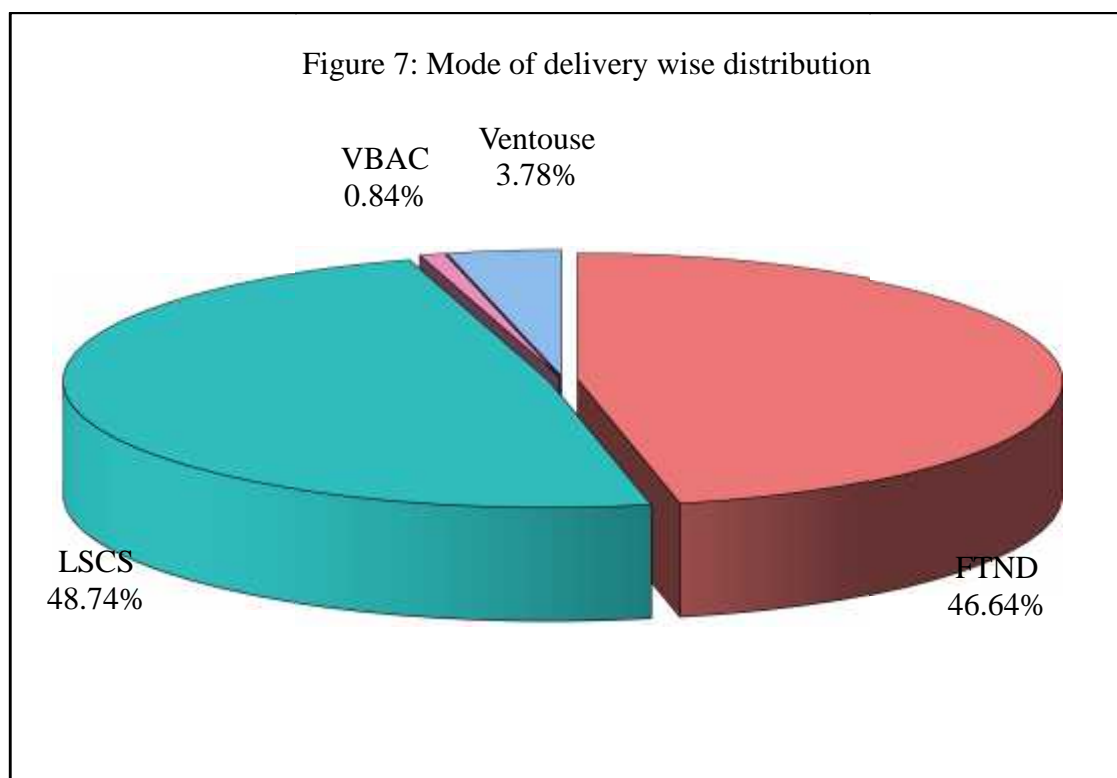


Table 9: Mode of delivery wise distribution

Mode of delivery	Number of subjects	%
Vaginal delivery	122	51.2
FTND	112	47.05
Ventouse	9	3.78
VBAC	1	0.42
LSCS	116	48.74
Total	238	100.00

From table 9, 122(51.2%) participants had vaginal delivery and 116(38.7%) had undergone LSCS and received PPIUCD.



Complications observed during follow-up examination after PPIUCD insertion

Follow up of study participants were carried out after 72 hours, 6 weeks, 3 months and 6 months post PPIUCD insertion. Of the 238 study participants, 228 reported for the 6 weeks follow up and thereafter, resulting in loss of 10 participants in follow up. Post insertion complications were monitored in the participants and documented. The analysis has been presented.

Table10: Comparison of different time periods with the status of pain abdomen

Time points	Present	%	Absent	%	Cochran Q	P-value	6 weeks with others By Mc Nemar
6 weeks	72	31.86	154	68.14	26.2055	0.0001*	P=0.0001*
3 months	74	32.74	152	67.26			P=0.0001*
6 months	52	23.01	174	76.99			P=0.0001*
Final	102	45.13	124	54.87			

*p<0.05

From table 10, lower abdominal pain was the most common complaint reported by majority of the participants in all the post insertion follow ups. The difference in number of participants of lower abdominal pain within the follow ups following insertion was ascertained to be significant by Cochran Q test (p=0.0001). There was significant difference between number of participants with abdominal pain between 6th week follow up and 3rd month follow up. Between 3rd month and 6th month follow up, the decrease in number of participants with lower abdominal pain following PPIUCD insertions was found to be significant (p=0.0001). 31.8% of the participants reported lower abdominal pain in the 6th week follow up and the number

of participants experiencing lower abdominal pain decreased to 23% in the 6th month follow up.

Table11: Comparison of different time periods with the status of excessive PV bleeding

Time points	Present	%	Absent	%	Cochran Q	P-value	6 weeks with others By Mc Nemar
6 weeks	34	15.04	192	84.96	0.1800	0.9807	P=1.0000
3 months	34	15.04	192	84.96			P=1.0000
6 months	32	14.16	194	85.84			P=1.0000
Final	63	27.88	163	72.12			

Excessive PV bleeding was the second major complication reported by PPIUCD participants. Around 14-15% of the participants reported to have excessive PV bleeding in all the follow ups. There was no significant difference in the proportion of excessive PV bleeding participants across all follow ups(p=1.0000).

Table12: Comparison of different time periods with the status of foul smelling vaginal discharge

Time points	Present	%	Absent	%	Cochran Q	P-value	72 hours with others By Mc Nemar
72 hours	1	0.44	225	99.56	10.1111	0.0176*	-
6 weeks	0	0.00	226	100.00			P=1.0000
3 months	6	2.65	220	97.35			P=0.0001*
6 months	4	1.77	222	98.23			P=0.0001*
Final	4	1.77	222	98.23			

*p<0.05

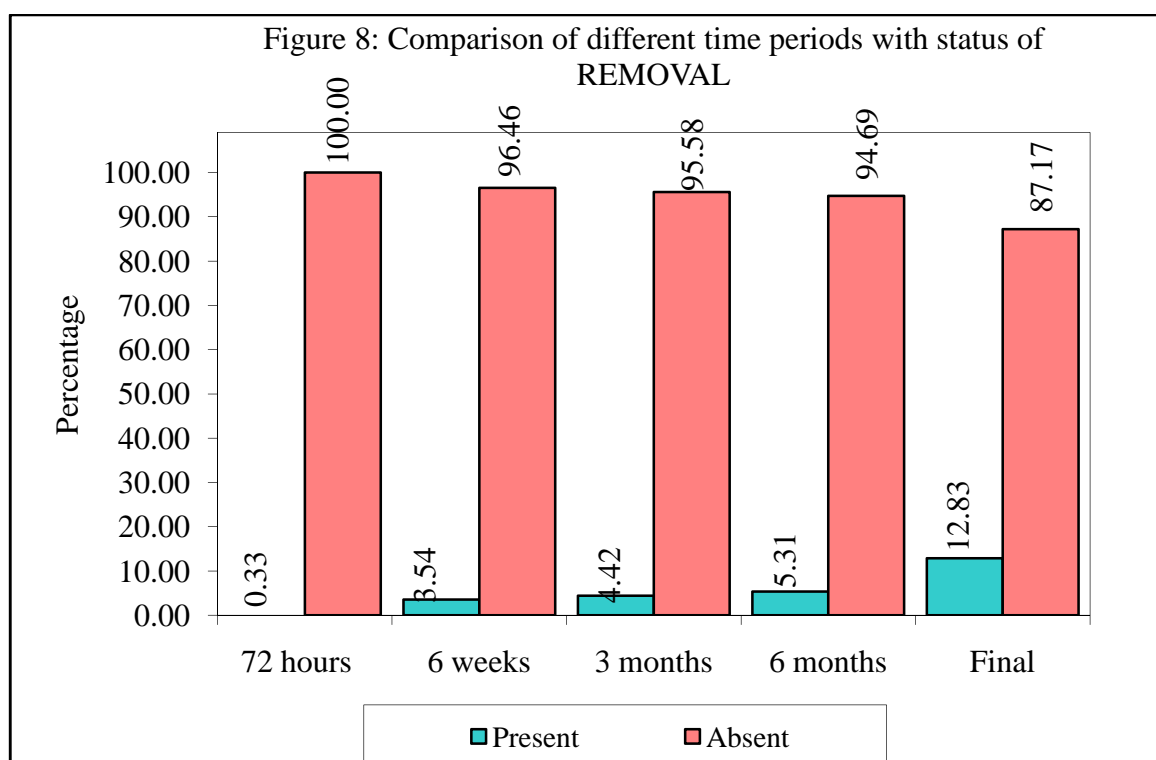
From table 12 one participant reported foul smelling vaginal discharge in 72 hours follow up suspecting pelvic infection and PPIUCD was removed. There were no participants with foul smelling vaginal discharge in the 6 weeks follow up. However, vaginal discharge was detected in 2.6% of participants in 3rd month follow up and 4 patients still had complication in the 6 months follow up.

Fever was reported in one participant on post-operative day 6 suspecting sepsis and PPIUCD was removed and fever was absent in all other participants across follow ups.

Table 13: Comparison of different time periods with status of removal

Time points	Present	%	Absent	%	Cochran Q	P-value	72 hours with others By Mc Nemar
72 hours	1	0.33	226	100.00	11.5814	0.0089*	-
6 weeks	7	3.54	218	96.46			P=0.0001*
3 months	10	4.42	216	95.58			P=0.0001*
6 months	12	5.31	214	94.69			P=0.0001*
Final	30	12.83	197	87.17			

*p<0.05



Removal of PPIUCD was reported in 1,7,10, and 12 participants at 72 hours, 6th week, 3rd month and 6th month follow ups respectively. There was a significant difference in the proportion of removal across times (p=0.001). It has been observed that there was a significant change in removal during the interval between 72 hours to 6th week, 3rd month and 6th month follow up (p=0.001).

Table 14:Time periods of removal and reason for removal of PPIUCD by participants.

Follow up	Reason for removal						
	Lower abdominal pain	Excessive PV bleeding	Lower abdominal pain and excessive PV bleeding	Husband not willing to continue	Opted for Bilateral Abdominal Tubectomy (BAT)	PPIUCD Displacement	Fever
72 hours	0	0	0	0	1	0	0
6 weeks	4	1	0	1	0	0	1
3 months	4	3	1	1	1	1	0
6 months	5	2	1	0	1	2	0
Total cases of removal	13	6	2	2	3	3	1

During the 72 hours follow up, one participant opted for removal as she has changed her mind to other methods (BAT). In the 6th week follow up, 4 participants had their PPIUCD removed citing lower abdominal pain as the reason and one participant each did not want to continue PPIUCD due to development of fever, excessive PV bleeding and reluctance of husband to continue with the method. In the 3rd month follow up 4 participants cited abdominal pain and 3 participants mentioned excessive PV bleeding to the reasons for removal. Other reasons like excessive PV bleeding along with lower abdominal pain, unwillingness of husband, opting for BAT and displacement of PPIUCD made one participant in each category to opt for removal. By the end of 6 months, 5 participants developed lower abdominal pain and removed PPIUCD. 2 participants each had excessive PV bleeding and PPIUCD displaced hence opted for removal. Lower abdominal pain and excessive PV bleed and opting for BAT were the reasons for removal for one participant in each category. The prime reason for removal of PPIUCD in this study was found to be lower abdominal pain (Table 14).

Table 15: Removals and mode of delivery:

Mode of delivery	Removals	Percentage
Vaginal delivery*	18	60
LSCS	12	40

(*FTND-15, Ventouse and VBAC -3)

Table 15 shows that 18(60%) participants opted for removal of PPIUCD had delivered vaginally and 12(40%) participants opted for removal had undergone LSCS.

Expulsion of PPIUCD in participants

Table 16: Comparison of different time periods with status of expulsion

Time points	Present	%	Absent	%	Cochran Q	P-value	72 hours with others By Mc Nemar
72 hours	1	0.42	226	99.58	3.3333	0.3430	-
6 weeks	3	1.49	223	98.67			P=0.2550
3 months	2	0.99	224	99.12			P=0.5000
6 months	1	0.44	225	99.56			P=1.0000
Final	7	3.35	220	97.35			

Expulsions of inserted PPIUCD were observed in 7(3.34%) of 228 participants. One participant had expulsion in less than 72 hours of insertion of PPIUCD during vaginal toileting after LSCS. At 6th week follow up, 3 participants had spontaneous expulsion of PPIUCD. 2 participants had expulsion in 3 months follow up and one participant in the 6 month follow up. There was no significant difference in expulsion at regular follow up visits (Table 16).

Table 17: Expulsions and mode of delivery

Mode of delivery	Expulsions	Percentage
Vaginal delivery*	6	71.4
LSCS	1	28.6

(*FTND-15, Ventouse and VBAC -3)

Maximum rates of expulsion (71.4%) were observed in participants where PPIUCD was inserted after vaginal deliveries. The reason for maximum number of expulsions after vaginal delivery might be due to faulty insertion techniques. LSCS and ventouse delivery presented one case of expulsion each.

In none of the participants, perforation was seen within the 6 months follow up period.

DISCUSSION

Despite making contraception widely available, there is a poor acceptance of this contraceptive method either due to ignorance or fear of complications associated. Keeping this in mind, the present study was conducted to assess the acceptance and safety of immediate PPIUCD insertion at tertiary care institute level. In this study, information pertaining to the rates of complications and expulsions in the study population post PPIUCD insertions was collected and analyzed.

Acceptance of PPIUCD as a method of contraception

In the present study level of acceptance of PPIUCD is 66.8%. It is significantly higher than the levels of acceptance in recent reported studies^{21, 39, 55}. In other studies the levels of acceptance have been in the range of 8%-66%^{23,37,38}.

Table 18: Comparison of rates of acceptance of PPIUCD in this study with other studies

Serial No	Study	Acceptance rates of PPIUCD (%)
1	Present study	66.8%
2	Goswami et al. (2015)	66%
3	Doley and Pegu (2016)	36.7%
4	Tomar et al. (2019)	28.3%
5	Mishra (2014)	17.2%
6	Vidyarama et al. (2015)	8.5%

The present data was in accordance with only fewer studies of Indian sub-continent. Goswami et al. (2015)³⁷ observed the acceptance rate as 66%. Doley and Pegu(2016) in their study observed acceptance rate as 36.7%⁴⁶. Tomar et al. (2019)⁵⁵ had observed acceptance rate of PPIUCD as 28.3% while Mishra(2014)⁴² and Vidyarama et al. (2015)³⁸ found acceptance rates as 17.2% and 8.2 % respectively.

The results of this study were comparable to the study done by Goswami et al. (2015)³⁷ while the acceptance levels were higher than the studies conducted by Doley and Pegu (2016)⁴⁶, Tomar et al. (2019)⁵⁵, Mishra(2014)⁴² and Vidyarama et al. (2015)³⁸. This variation of acceptance rates were due to the differences in the level of awareness, educational level of respondents, religious beliefs and various misconceptions about PPIUCD insertion in the study settings.

Comparison of sociodemographic and obstetric characteristics of the study participants accepting PPIUCD insertions in the present study with other studies

In the present study the acceptance rate was higher in the age group of 21-30 years followed by 20 years of age. >30 years group had least acceptance rates. The results were however not statistically significant.

Table 19: comparison of age group of the study participants accepting the PPIUCD with other studies

Sl.no	Study	Age group(years)
1.	Present study	21-30
2.	Mishra(2014)	20-29
3.	Doley and Pegu (2016)	21-25
4.	Sharma and Gupta(2017)	21-30
5.	Rana et al.(2019)	26-30
6.	Asnani et al.(2019)	18-25 years

Mishra (2014)⁴² found that acceptance rates were higher in women of age group 20-29 years which was comparable to the present study. Similar results were found in the studies done by Doley and Pegu (2016)⁴⁶, Sharma and Gupta(2017)²¹ and Rana et al.(2019)³⁹. Asnani et al.(2019)⁵⁶ found the higher rates of acceptance in the younger age group (18-25 years) which varied from the present study.

Table 20: Comparison of educational qualification of the study participants accepting the PPIUCD with other studies

Sl.no	Study	Educational qualification
1.	Present study	Secondary/tertiary education
2.	Mishra(2014)	Primary and secondary education
3.	Doley and Pegu (2016)	Secondary level
4.	Sharma and Gupta(2017)	Secondary level
5.	Rana et al.(2019)	Primary and secondary level
6.	Asnani et al.(2019)	illiterates

In terms of educational qualification, acceptance was higher amongst literates as compared to illiterates in the literature^{37, 38, 42, 46, 55} comparable with the present study. Choudhary et al. found higher acceptance for PPIUCD in participants who had received secondary and higher education⁵⁷. Ullah and Chakraborty showed women's education as the most important determinant of contraceptive use in their studies⁵⁸. Asnani et al. (2019)⁵⁶ found higher level of acceptance in illiterates which was contradicting the present study.

Table 21: Comparison of parity of the study participants accepting the PPIUCD with other studies

Sl.no	Study	Parity
1.	Present study	Primipara
2.	Mishra(2014)	Primipara
3.	Rana et al.(2019)	Primipara
4.	Asnani et al.(2019)	Primipara
5.	Tomar et al. (2019)	Multipara
6.	Sharma and Gupta(2017)	Multipara

The acceptance rates of PPIUCD were higher in primiparous women which was similar to the study done by Mishra (2014)⁴², Rana et al.(2019)³⁹, Asnani et al.(2019)⁵⁶. However recent studies on acceptance showed that multiparous women had accepted for PPIUCD insertions in higher level^{21, 55}.

Table 22: Comparison of mode of delivery of the study participants accepting the PPIUCD with other studies

Sl.no	Study	Mode of delivery
1.	Present study	Vaginal delivery
2.	Rana et al.(2019)	Vaginal
3.	Doley and Pegu (2016)	Caesarean
4.	Kanhere et al.(2015)	Caesarean
5.	Jayaraj and Dayyala(2016)	Caesarean

In the present study higher level of acceptance was found in the participants who had undergone vaginal delivery consistent with the results of study done by Rana et al.(2019)³⁹ while the studies done by Doley and Pegu (2016)⁴⁶, Kanhere et al.(2015)²³, Jayaraj and Dayyala(2016)⁹ had shown that acceptance of PPIUCD was higher in the women underwent LSCS.

Factors affecting refusal of PPIUCD insertions among participants of this study and other studies:

In this study 36.5% of the participants declined to consent for PPIUCD insertion due to fear of complications as a major reason which is consistent with many other studies^{1, 10, 11}. This was followed by declining PPIUCD insertions due to religious beliefs (24.6%), which have been cited as an important factor for refusal of PPIUCD in studies by Asnani et al.⁵⁶. A similar observation was reported by Kumari Saroj and Goyal Neha where fear of side effects and complications (32.5%) was the most common reason for not accepting PPIUCD usage⁵⁹. According to study by Priya et al., the belief that PPIUCD insertion might deter the future conception was the reason for refusal (65.0%)⁶⁰.

Table 23: Comparison of factors affecting refusal of PPIUCD insertions in the present study with other studies

Sl.No.	Study	Reason for refusal of PPIUCD (% refusal)
1	Present study	Fear of complications (36.5%) Religious beliefs (24.6%)
2	Priya et al. (2011)	Misconception regarding mode of action (65%)
3	Goutam et al. (2014)	Fear of complications (> 50%)
4	Deshpande et al. (2014)	Fear of complications (> 50%)
5	Sharma et al (2017)	Fear of complications (70%)
6	Asnani et al. (2019)	Religious belief (69%)

Exclusion of participants for PPIUCD insertions

In this study, 86 screened and counseled participants were found to be ineligible for insertions based on the selection criteria. On analysis of the various excluding conditions of the participants, it was found that the 40% of the participants were ineligible as they were anemic. This is not surprising, considering India had the highest prevalence of anemia in pregnancy and is the home of largest number of anemic pregnant women in the world^{8,9}. This aspect can be a drawback in implementation of PPIUCD since women although are ready to use PPIUCD are not eligible due to poor physical health. The other reasons for exclusion were term rupture of membranes and post-partum hemorrhage.

Table 24: Comparison of complications among recipients of PPIUCD in this study with other studies

Sl. No.	Study	Complications post PPIUCD insertion (% reported incidences)
1	Present study	Pain in abdomen and PV bleeding
2	Mishra (2014)	PV bleeding
3	Jairaj and Dayyala (2016)	Pain in abdomen and PV bleeding
4	Tomar et al. (2019)	Pain in abdomen
5	Rehman et al. (2019)	Pain in abdomen and PV bleeding
6	Rana et al. (2019)	Non visualisation of PPIUCD strings

Complications following PPIUCD insertions have been reported in almost all studies. Lower abdominal pain and excessive PV bleeding were the most common side effects reported in the present study comparable to majority of the recent studies in the literature. The other complications noted were foul smelling vaginal discharge and fever in one case. Similar observation was noted in earlier studies⁵⁷. Excessive PV bleeding has been known to be heavy during the initial phases of PPIUCD insertions for 2 to 3 menstrual cycle⁵⁸. Studies have also shown that bleeding reduces from first follow up visits to third month follow up⁶¹ which was contrary to findings of this study.

Table 24: Comparison of removal rates and factors affecting removal of PPIUCD in this study with other studies

Sl. No.	Study	PPIUCD removal rates (%)	Reason for removal of PPIUCD
1.	Present study	12.6%	Lower abdominal pain
2.	Mishra (2014)	5.8%	Excessive PV Bleeding
3.	Doley and Pegu (2016)	3.1%	Excessive PV Bleeding
4.	Tomar et al. (2019)	8.2%	Lower abdominal pain and excessive PV bleeding
5.	Jairaj and Dayyala (2016)	40%	Inclination to other forms of contraception

In this study 12.6% of participants opted for removal of PPIUCD major reason being lower abdominal pain which was similar to the study done by Tomar et al. (2019)⁵⁵. Studies done by Mishra (2014)⁴², Doley and Pegu (2016)⁴⁶, Tomar et al. (2019)⁵⁵ showed that major reason for removal was excessive PV bleeding.

Table 25: Comparison of expulsion rates of PPIUCD in this study with other studies

Sl. No.	Study	PPIUCD expulsion rates (%)
1	Present study	3.1%
2	Celen et al. (2004)	6.4%
3	Kittur and Kabadi (2012)	5.23%
4	Misra (2014)	8.9%
5	Maluchuru et al. (2015)	3.5%
6	Goswami et al. (2015)	10%
7	Doley and Pegu (2016)	3.09%
8	Jairaj and Dayyala (2016)	6.8%
9	Tomar et al. (2019)	6.6%
10	Rana et al. (2019)	12.12%

One of the objectives of this study was to determine the rates of expulsion following PPIUCD insertion. Amongst the 238 participants with PPIUCD insertions, expulsion of inserted PPIUCD was observed in 7 participants having the expulsion rate in this study as 3.3% which was lower than the reported literature. Similar observation was made by Doley and Pegu (2016)⁴⁶ and Maluchuru et al. (2015) who found expulsion rates of the post-placental PPIUCD as 3.1% and 3.5% respectively^{35,46}.

Mode of delivery also had an effect on the rates of expulsion of inserted PPIUCD. Maximum rates of expulsion of PPIUCD (71.4%) were observed in participants who had delivered through vaginal route which was similar to results in systematic review on PPIUCD insertions, Gupta et al., Hooda et al. and Letti Müller et al. who reported lower expulsion rate after intra-cesarean insertions^{28,49,62}.

No participant had shown uterine perforation after PPIUCD insertion. However no studies in the literature have reported uterine perforation after PPIUCD insertion.

CONCLUSION

It is evident from this study that PPIUCD as a method of contraception is long lasting and reversible and if mediated immediately after delivery, confers several advantages. The acceptance rate of 66.8% is due to effective counselling, higher (80%) educational qualification (more than 10 years and above) and higher (84.5%) age group (21-30 years) of participants. Majority of the participants opted for removal of PPIUCD due to lower abdominal pain and excessive PV bleeding. Expulsion rate was 3.3% which is comparable to interval insertions of IUCD. 191 participants (83.7%) continued to have PPIUCD.

STRENGTHS OF THE STUDY

The study was a prospective hospital based study.

In the present study acceptance was high amongst women in the age group of 21-30 years of age and who were educated at least up to 10th grade as compared to post graduate level.

The primary investigator being only counsellor the counselling for PPIUCD insertions was highly effective and this contributing to the higher level of acceptance of PPIUCD.

The trained clinicians and proper method of PPIUCD insertion was the reason for lower expulsion rates of PPIUCD compared to studies of literature.

LIMITATIONS OF THE STUDY

Following are limitations of this study:

- Detailed prior counselling regarding the PPIUCD insertion was not done.
- Fear of complications was the prime reason cited for refusal of PPIUCD insertions by the participants in this study. This could have been overcome by a proper antenatal counselling to educate women on the benefits of PPIUCD and possible expected side effects.
- The sample size could not be met due to COVID 19 pandemic.
- The methods helping the women who were having lower education levels (below 10 years) like explaining them about PPIUCD using charts, pictures or video communication would probably have had effect on the acceptance levels among them.

SUMMARY

The present study was a hospital based descriptive observational study to assess the acceptance and safety of PPIUCD insertion in women at tertiary care institute level with a larger population of participants. This study was conducted at the Department of Obstetrics and Gynecology in the teaching hospital attached to KAHER's J.N Medical College, Belagavi, Karnataka from March 2019 to March 2020.

A total of 254 women were selected for enrollment based on selection criteria of which 238 were recruited for insertion of PPIUCD. Follow ups were carried out starting at 72hour after insertion up to 6 months to assess complications and rates of expulsions and removals of PPIUCD. Data regarding socio demographic and clinical characteristics was collected in form of structured questionnaires and analyzed statistically. Key findings of this study have been summarized as follows:

- Acceptance rate of PPIUCD insertions in this study was 66.8%, which is higher than most literature reported rates of PPIUCD acceptance.
- Amongst the 238 participants who accepted PPIUCD, majorities were in the age range 21-30 years(84.5%), with mean age estimated to be 24.1±3.2 yrs. Maximum women had secondary level of education (35.7%) followed by intermediate (29.4%) and graduation (24.8%). Acceptance was high among primi para (55.5%) and women who delivered through vaginal route
- Statistically significant correlation was established between age and educational qualification with acceptance of PPIUCD insertions.

- Fear of complications was the reason given by highest number of participants (36.5%) as the primary factor for not accepting PPIUCD. 24.6% of the participants declined PPIUCD due to religious beliefs. Interest in other methods of contraception, unwillingness of spouse and relatives or delays in use of contraception right after delivery were some of the other reasons for non-acceptance of PPIUCD.
- Anemia was the major reason for ineligibility of women for PPIUCD insertions in our study. 40% of participants were not accepted for the study as they were anemic.
- Lower abdominal pain and excessive PV bleeding were the most common post insertion complaints reported during follow ups. The other complications noticed were foul smelling vaginal discharge and in one case, fever. There was no case of uterine perforation as a complication.
- PPIUCD removal rate was 12.6% in the present study. Lower abdominal pain and excessive PV bleeding were the most common reasons for removal of PPIUCD in this study. In all cases, removals were mostly sought after 3 months of insertions and not immediately or within 6 weeks.
- Amongst the 238 participants with PPIUCD insertions, expulsion of inserted PPIUCD was observed in 7 participants placing the expulsion rate in this study to be 3.3% which was lower to reported literature. Maximum numbers of expulsions were observed at the 6th week follow up, with single cases of expulsion at 6 months. Maximum rates of expulsion were observed in cases where PPIUCD was inserted after vaginal deliveries as compared to Caesarean insertions.

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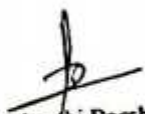

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ANNEXURE I. ETHICAL CLEARANCE.

	<p>K.L.E. ACADEMY OF HIGHER EDUCATION AND RESEARCH (Deemed - to - be - University) Accredited 'A' Grade by NAAC (2nd Cycle) Placed in Category 'A' by MIRD (Govt)</p> <p>JAWAHARLAL NEHRU MEDICAL COLLEGE, NEHRU NAGAR, BELAGAVI-590010 (KARNATAKA-INDIA)</p> <p>Website: http://www.jnmc.edu Phone: (+91-(0)831 Office : 2472550 E-Mail : dome@jnmc.edu Principal: 2471701 Fax No. +91 (0)831 - 2470759</p>
<p>Ref: MDC/DOME/ 65</p>	<p>Date: 24/11/2018</p>
<p>To REG NO. B J 0 1 1 8 0 0 6 PG student in Obstetrics and Gynaecology, J.N.Medical College, BELAGAVI.</p>	
<p>Sub: Institutional Ethical Clearance for the study.</p>	
<p>With reference to the above, we wish to inform you that your proposed research project titled "ACCEPTANCE OF POST-PARTUM INTRAUTERINE CONTRACEPTIVE DEVICE (PPIUCD) - HOSPITAL BASED DESCRIPTIVE LONGITUDINAL STUDY AT THE TEACHING HOSPITAL ATTACHED TO KAHER'S J. N. MEDICAL COLLEGE, BELAGAVI", is ethical and justifiable. The proposed research project has been cleared by the JNMC Institutional Ethics Committee on Human Subjects Research.</p>	
<p> (Dr. Arathi Darshan) Member Secretary JNMC Institutional Ethics Committee on Human Subjects Research, J.N.Medical College, Belagavi.</p>	<p> (Dr. Roopa M Bellad) Chairman, JNMC Institutional Ethics Committee on Human Subjects Research, J.N.Medical College, Belagavi.</p>

ANNEXURE II INFORMED CONSENT FORM

Study title- Acceptance of PPIUCD – A hospital based descriptive longitudinal study at the teaching hospital attached to KAHER's J.N Medical College, Belagavi.

Introduction:

Madam, I take the opportunity to invite you to take part in this clinical research study. To help you decide, I will hereby provide details regarding the study- the procedure, the benefits and the risks of the study and the discomforts. Please take time to read the following information sheet carefully and discuss it with your family.

Once you have decided and if you wish to take part in the study, you will be asked to sign the informed consent form.

Purpose of this research study:

PPIUCD is important method of spacing. Since women during immediate postpartum are highly receptive and motivated, this study is conducted to know the acceptance and expulsion rates of PPIUCD in this part of country. Therefore this study contributes significantly to increase the use of PPIUCD as a long acting reversible contraception in Indian population.

Details of the procedure:

After you give the informed consent, the intra uterine contraceptive device will be inserted following vaginal delivery or caesarean delivery, immediately after ensuring complete delivery of placenta and you will be followed-up after 72 hours of delivery, 6weeks, 3 months and 6 months.

The investigator will also be collecting some personal information and detailed medical history. This study data will be transcribed from your medical records to special forms.

Risks and benefits:

There are minimal side effects like pain abdomen, excessive bleeding, vaginal discharge and fever with no major complications. This method gives protection against pregnancy. However, if Cu-T is removed the fertility is returned.

Alternatives:

There are other methods of contraception but intrauterine contraceptive device is the better method for contraception during postpartum period as it does not effect the lactation. But your participation is voluntary. If you do not want to participate in this study you can still avail new information about contraceptives.

If you have a question:

In case you have any questions related to the study, in future or in case of study related injury or illness, you can contact REG NO. BJ0118006, Department of Obstetrics and Gynaecology, at teaching hospital attached to KAHER's J.N Medical College, Belagavi. Ph. No. _____ or mobile number: _____ or Dr. _____, Professor and Head, Dept. Of Obstetrics and Gynaecology, KLE University's J.N Medical College, Belagavi Ph.: _____ or phone number: _____.

If you have any queries about your rights as a study participant, you may call Dr.Roopa M. Bellad, Professor of Paediatrics as Chairman of J. N. Medical College Institutional Ethics Committee on Human Subjects Research, Phone No: 9448113403 at J.N Medical College, Belagavi.

What will happen if you don't want to participate in the study or if you want to withdraw from the study?

Your participation in this research is entirely voluntary. You are free to refuse to participate or you may withdraw from the study at any time without penalty or loss of benefits to which you are entitled. Your decision to withdraw will not affect your future medical care. The investigator holds the right to terminate the study at anytime, if for example, participant recruitment is inadequate.

Privacy and Confidentiality:

Any information collected during the study will remain confidential. Your medical files will be reviewed only at the hospital (or study doctor's office) in order to check the information and verify the results without breaking your confidentiality.

By signing this consent form, I am giving permission for processing your personal information in a database and transferring it to the people (mentioned above) involved in this study.

Institutional policy:

If there are any side effects after the insertion of intrauterine contraceptive device, the treatment facilities available at Dr. Prabahakar Kore Hospital will be provided to you.

Financial incentives for participation:

This procedure is provided at no cost to you. You will not receive any payment for taking part in this research study.

Authorisation to publish results:

Whatever the data collected in this study will be used for scientific presentation at conferences and to publish article in scientific journals. However your identity will be kept confidential.

Thank you for reading this and considering for taking part in this study.

CONSENT FORM

Study title: Acceptance of PPIUCD – hospital based descriptive longitudinal study at teaching hospital attached to KAHER’s J.N Medical College, Belagavi.

Name of the participant: _____ Please tick box

- (i) I confirm that I have read and understood the information sheet for the above study and all my questions are satisfactorily answered.

- (ii) I understood that my participation in this study is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.

- (iii) I understood that the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understood that my identity will not be revealed in any information released to third parties or published.

- (iv) I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s).

- (v) I agree to take part in the above study.

Name of the participant: _____

Signature of the subject: _____

Date (dd-mm-yyyy): -

महिति पत्रक

अभ्यास शीर्षक-

पीपीआईयूसीडीचा स्वीकार आणि निष्कासन दर- काहेरच्या जे.एन. मेडिकल कॉलेज, बेळगावीशी संलग्न हॉस्पिटल शिकविण्यावर एक हॉस्पिटल आधारित वर्णनात्मक अनुवांशिक अभ्यास.

परिचय

मॅडम, मी आपल्याला क्लिनिकल रिसर्चे स्टडीमध्ये सहभागी होण्यासाठी निमंत्रण देण्याची विनंती करू शकतो. आपल्याला निर्णय घेण्यास मदत करण्यासाठी, मी या अभ्यासात आपण आणि आपल्यासाठी काय अंतर्भूत आहे याचा अभ्यास करू. या अभ्यासात भाग घेण्याविषयी सूचित निर्णय घेण्यासाठी मी तुम्हाला अभ्यास, प्रक्रिया, फायदे आणि अभ्यासाचे धोके अपंग आणि सावधगिरीचा हेतू समजून घेतो. या प्रक्रियेस सूचित संमती म्हणतात. कृपया खालील माहिती काळजीपूर्वक वाचण्यासाठी आणि इतरांशी चर्चा करण्यासाठी वेळ द्या.

एकदा आपण भाग घेऊ इच्छित असल्यास आपण निर्णय घेतला की आपल्याला सूचित संमती फॉर्मवर स्वाक्षरी करण्यास सांगितले जाईल.

या संशोधन अभ्यासाचा उद्देश काय आहे?

पीपीआययूसीडी स्पेसिंगची महत्वाची पद्धत आहे. तत्काळ पोस्टपेटम दरम्यान महिला अत्यंत ग्रहणक्षम आणि प्रेरित असतात. म्हणूनच या देशातील पीपीआययूसीडीच्या स्वीकृती आणि निष्कासन दर जाणून घेण्यासाठी हा अभ्यास आयोजित केला जातं. म्हणूनच या अभ्यासामुळे पीपीआययूसीडीचा वापर भारतीय लोकसंख्येत दीर्घकालीन बदलण्यायोग्य गभ्नेनिरोधक म्हणून वाढण्यास महत्वपूर्ण ठरतो.

खर्च आणि पेमेंट

ही प्रक्रिया आपल्यासाठी कोणत्याही किंमतीत पुरविली जात नाही. या संशोधन अभ्यासात भाग घेण्यासाठी आपल्याला कोणतीही देय प्राप्त होणार नाही.

मी या अभ्यासात भाग घेतल्यास माझ्या बाबतीत काय होईल?

एकदा आपण परामर्शानंतर सूचित संमती फॉर्मवर स्वाक्षरी केल्यानंतर योनि डिलिव्हरी किंवा सीझरियन वितरणानंतर, पीएलआययूसीडी प्लेसेंटॉ पूर्ण वितरण सुनिश्चित केल्यानंतर लगेचच घातली जाईल आणि आपणास 72 तासांच्या डिलिव्हरी, 6weeks, 3 months आणि 6 months नंतर पाठवले जाईल .

अन्वेषक काही वैयक्तिक माहिती आणि तपशीलवार वैद्यकीय इतिहास देखील गोळा करेल. हा अभ्यास डेटा आपल्या वैद्यकीय नोंदींमधून विशेष स्वरूपात लिहून घेतला जाईल.

धोके आणि फायदे

यात कमी वेदना आहेत जसे की वेदना ओटीपं , रक्तस्राव, पांढरा डिस्चार्ज ज्यामध्ये कोणत्याही प्रकारचे गुंतागुंत नाही. तथापि, जर क्यू-टी काढून टाकले तर प्रजनन क्षमता परत केली जाते.

जर आपल्याकडे एक प्रश्न असेल तर:

अभ्यासाशी संबंधित काही प्रश्न असल्यास, भविष्यात किंवा अभ्यास संबंधित जखम किंवा आजार असल्यास, आपण काहेरच्या जे.एन. मेडिकल कॉलेज, बेळगावीशी संलग्न हॉस्पिटल शिकविण्यावर REG

NO. BJ0118006, ओबस्टेट्रिक्स आणि गायनॉकॉलॉजी विभागांशी संपके साधू शकत . पी. सं. _____ किंवा मोबाइल नंबर: _____ किंवा डॉ. _____, प्रोफेसर अँड हेड, डिप्टी ऑफ ऑबस्टेट्रिक्स अँड गायनॉकॉलॉजी, केएलई युनिव्हर्सिटीचे जे. एन. मेडिकल कॉलेज, बेलगवी पीएच .: _____ किंवा फोन नंबर: _____.

अभ्यास सहभागी म्हणून आपल्या अधिकारांबद्दल आपल्याला काही प्रश्न असतील तर, डॉ. रुपा एम. बेलद, चे संस्थापक एथिक्स कमिटी ऑन मानवविषय कमिटी चे अध्यक्ष म्हणून, डॉ. रुपा एम. बेलद यांना फोन करा: फोन नंबर: 9448113403 जेएन मेडिकल कॉलेज, बेलगवी येथे .

जर आपण अभ्यास चालू ठेवू इच्छित नसल्यास काय होईल?

या संशोधनातील सहभाग पूर्णपणे स्वैच्छिक आहे. आपण सहभाग घेण्यास नकार देता किंवा आपण कोणत्याही वेळी दंड न घेता किंवा आपण ज्या हकदार आहात त्या फायद्यांचा तोटा न करता आपण अभ्यास मागे घेऊ शकता. मागे घेण्याचा आपला निर्णय आपल्या भविष्यातील वैद्यकीय सेवेस प्रभावित करणार नाही. उदाहरणार्थ, सहभागी भर्ती अपयोप्त असल्यास, अन्वेषणकृत्यास कोणत्याही वेळी अभ्यास समाप्त करण्याचा अधिकार आहे.

या अभ्यासात तुमचा सहभाग घेता येईल का? आपली वैयक्तिक माहिती कशी वापरली जाईल?

अभ्यासादरम्यान गोळा केलेली कोणतीही माहिती गोपनीय राहिल. माहिती तपासण्यासाठी आणि आपल्या गोपनीयतेचा भंग केल्याशिवाय परिणाम सत्यापित करण्यासाठी आपल्या वैद्यकीय फायलीचे केवळ मुख्य तपासनीस आणि मार्गदर्शकाद्वारे रुग्णालयात (किंवा डॉक्टरांच्या कार्यालयाचा अभ्यास) पुनरावलोकन केले जाईल.

या संमती फॉर्मवर स्वाक्षरी व , आपण डेटाबेसमधील आपल्या वैयक्तिक माहितीची प्रक्रिया करण्यासाठी आणि या माहितीचा किंवा तिच्या कोणत्याही भागाचा अभ्यास अध्ययनात समाविष्ट असलेल्या (वर उल्लेख केलेल्या) लोकांना हस्तांतरित करण्याची परवानगी देत आहात.

हे वाचण्यासाठी आणि आपण या अभ्यासात भाग घेतल्यास विचार केल्याबद्दल धन्यवाद.

संमती फॉर्म

अभ्यास शीर्षक-

पीपीआईयूसीडीचा स्वीकार आणि निष्कासन दर- काहेरच्या जे.एन. मेडिकल कॉलेज, बेळगावीशी संलग्न हॉस्पिटल शिकविण्यावर एक हॉस्पिटल आधारित वर्णनात्मक अनुवांशिक अभ्यास.

सहभागीचे नाव: _____

कृपया बॉक्स चेक करा

(i) मी पुष्टी केली आहे की मी वाचले आहे किंवा ते वाचले गेले आहे आणि उपरोक्त अभ्यासासाठी माहिती पत्रक समजले आणि माझे सर्व प्रश्न समाधानकारकपणे उत्तर दिले गेले.

(ii) मला समजले की अभ्यासात माझा सहभाग स्वैच्छिक आहे आणि मी कोणत्याही वैद्यकीय सेवेशिवाय किंवा कायदेशीर अधिकारांवर कोणत्याही कारणाशिवाय, कोणत्याही कारणाशिवाय मागे जाण्यास मोकळे आहे.

(iii) मला समजले की आचारसंहिता समिती आणि नियामक प्राधिकरणांना सध्याच्या अभ्यासाच्या संदर्भात माझे आरोग्य अभिलेख आणि माझ्या संबंधात केलेल्या कोणत्याही पुढील संशोधनांकडे पाहण्यास माझ्या परवानगीची आवश्यकता नाही, जरी मी त्यातून बाहेर पडलो तरी चाचणी मी या प्रवेशाशी सहमत आहे. तथापि, मला समजले की माझी ओळख तृतीय पक्षांना जारी केलेल्या किंवा प्रकाशित केलेल्या कोणत्याही माहितीमध्ये प्रकट केली जाणार नाही.

(iv) मी सहमत आहे की या अभ्यासातून उद्भवणाऱ्या कोणत्याही डेटा किंवा वापराचा वापर प्रतिबंधित न केल्यास असे वापरा केवळ वैज्ञानिक हेतूसाठी आहे.

(v) मी वरील अभ्यासात भाग घेण्यास सहमत आहे.

सहभागीचे नाव: _____

या विषयावरील स्वाक्षरी (किंवा अंगठ्याचा ठसा): _____

तारीख (डीडी-एमएम-वाईय):

ನಮಗ ಪ್ರಶ್ನೆಯಿದ್ದರೆ

ಭವಿಷ್ಯದಲ್ಲಿ ಅಥವಾ ಅಧ್ಯಯನದ ಸಂಬಂಧಿತ ಗಾಯ ಅಥವಾ ಅನಾರೋಗ್ಯದ ಸಂದರ್ಭದಲ್ಲಿ ನೀವು ಅಧ್ಯಯನಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಯಾವುದೇ ಪ್ರಶ್ನೆಗಳನ್ನು ಹೊಂದಿದ್ದರೆ, ನೀವು REG NO. BJ0118006, ಪ್ರಸವಶಾಸ್ತ್ರ ಮತ್ತು ಸ್ತ್ರೀರೋಗ ಶಾಸ್ತ್ರ ಇಲಾಖೆಗೆ ಸಂಪರ್ಕಿಸಬಹುದು, ಬೆಳಗಾವಿಕಾರ್ಹರ್ ಜೆ.ಎನ್. ಮೆಡಿಕಲ್ ಕಾಲೇಜ್ ನೇರದ ಈಸ್ಟ್ರಿಯ ಬೋಡಿನ .

ಪಿಎಚ್ ಸಂಖ್ಯೆ: _____ ಅಥವಾ ಮೊಬೈಲ್ ಸಂಖ್ಯೆ: _____ ಅಥವಾ ಡಾ. _____; ಪ್ರೊಫೆಸರ್ ಮತ್ತು ಹೆಡ್, ಪ್ರಸೂತಿ ಮತ್ತು ಸ್ತ್ರೀರೋಗ ಶಾಸ್ತ್ರದ ವಿಭಾಗ, ಕವಲ್ ಇ ಎಶ್ಯುವಲ್ಯಾಸಲಯದ ಜೆ.ಎನ್ ವೈದ್ಯಕೀಯ ಕಾಲೇಜು, ಬೆಳಗಾವಿ ಪಿಎಚ್ .: _____ ಅಥವಾ ದೂರವಾಣಿ ಸಂಖ್ಯೆ: _____.

ಅಧ್ಯಯನದ ಪಾಲ್ಗೊಳ್ಳುವವರಂತೆ ನಮ್ಮ ಹಕ್ಕುಗಳ ಕುರಿತು ನೀವು ಯಾವುದೇ ಪ್ರಶ್ನೆಗಳನ್ನು ಹೊಂದಿದ್ದರೆ, ನೀವು ನೀವು ಪೀಡಿಯಾಟ್ರಿಕ್ಸ್ ಪ್ರೊಫೆಸರ್ ಡಾ. ರೋಪಾ ಎಂ. ಬಿಲ್ಲದ, ಜೆಎನ್ ಮೆಡಿಕಲ್ ಕಾಲೇಜ್ ಇನ್ಸ್ಟಿಟ್ಯೂಶನಲ್ ವರ್ಡ್ಸ್ ಕೆಮಿಟಿಯ ಅಧ್ಯಕ್ಷರಾಗಿ ಮಾನವ ವಿಷಯಗಳ ಸಂಶೋಧನೆ, ದೂರವಾಣಿ ಸಂಖ್ಯೆ: 9448113403, ಬೆಳಗಾವಿ ಜೆಎನ್ ಮೆಡಿಕಲ್ ಕಾಲೇಜಿನಲ್ಲಿ ಕರೆ ಮಾಡಬಹುದು. .

ನೀವು ಅಧ್ಯಯನದೊಂದಿಗೆ ಮುಂದುವರಿಯಲು ಬಯಸದಿದ್ದರೆ ಏನಾಗುತ್ತದೆ?

ಈ ಸಂಶೋಧನೆಯು ನಮ್ಮ ಭಾಗವಹಿಸುವಿಕೆ ಸಂಪೂರ್ಣವಾಗಿ ಸ್ವಯಂಪ್ರೇರಿತವಾಗಿದೆ. ಭಾಗವಹಿಸಲು ನೀವು ನಿರಾಕರಿಸುವುದು ಉಚಿತ ಅಥವಾ ನೀವು ಯಾವುದೇ ಸಮಯದಲ್ಲಿ ದಂಡದ ಅಥವಾ ನೀವು ಅರ್ಹತೆ ಪಡೆದ ಲಾಭದ ನಷ್ಟವಿಲ್ಲದ ಅಧ್ಯಯನದಿಂದ ಹಿಂತೆಗೆದುಕೊಳ್ಳಬಹುದು. ಹಿಂತೆಗೆದುಕೊಳ್ಳುವ ನಮ್ಮ ನಿರ್ಧಾರವು ನಮ್ಮ ಭವಿಷ್ಯದ ವೈದ್ಯಕೀಯ ಕಾರ್ಯಗಳ ಯಾವುದೇ ಪರಿಣಾಮ ಬೀರುವುದಿಲ್ಲ. ಉದಾಹರಣೆಗೆ, ಪಾಲ್ಗೊಳ್ಳುವವರ ನೇಮಕಾತಿ ಅನುಮೋದನೆಗಾಗದಿದ್ದರೆ, ಯಾವುದೇ ಸಮಯದಲ್ಲಿ ಈ ಅಧ್ಯಯನವನ್ನು ಅಂತ್ಯಗೊಳಿಸುವ ಹಕ್ಕನ್ನು ತನಿಖೆಗಾರನು ಹೊಂದಿರುತ್ತಾನೆ.

ಈ ಅಧ್ಯಯನದಲ್ಲಿ ನೀವು ಪಾಲ್ಗೊಳ್ಳುವಿರಾ? ನಮ್ಮ ವೈಯಕ್ತಿಕ ಮಾಹಿತಿಯನ್ನು ಹೇಗೆ ಬಳಸಲಾಗುವುದು?

ಅಧ್ಯಯನದ ಸಮಯದಲ್ಲಿ ಸಂಗ್ರಹಿಸಿದ ಯಾವುದೇ ಮಾಹಿತಿ ಗೌಪ್ಯವಾಗಿರುತ್ತದೆ. ಮಾಹಿತಿಯನ್ನು ಪರಿಶೀಲಿಸಲು ಮತ್ತು ನಮ್ಮ ಗೌಪ್ಯತೆಯನ್ನು ಮುರಿಯದೆ ಫಲಿತಾಂಶವನ್ನು ಪರಿಶೀಲಿಸಲು ನಮ್ಮ ವೈದ್ಯಕೀಯ ಫೈಲ್ಗಳನ್ನು ಆಸ್ಪತ್ರೆಯಲ್ಲಿ ಅಥವಾ ಅಧ್ಯಯನ ವೈದ್ಯಕೀಯ ಕಛೇರಿಯಲ್ಲಿ ಪ್ರಧಾನ ತನಿಖೆಗಾರ ಮತ್ತು ಮಾರ್ಗದರ್ಶಕರಂದೆ ಮಾತ್ರ ಪರಿಶೀಲಿಸಲಾಗುತ್ತದೆ.

ಈ ಸಮ್ಮತಿಯ ನಮೂನೆಯಲ್ಲಿ ಸಹಿ ಮಾಡುವ ಮೂಲಕ, ಡೇಟಾಬೇಸ್‌ನಲ್ಲಿ ನಮ್ಮ ವೈಯಕ್ತಿಕ ಮಾಹಿತಿಯನ್ನು ಪ್ರತ್ಯಯಗೊಳಿಸಲು ಮತ್ತು ಈ ಮಾಹಿತಿಯು ಅಥವಾ ಅದರ ಯಾವುದೇ ಭಾಗವನ್ನು ಅಧ್ಯಯನದಲ್ಲಿ ತೊಡಗಿಸುವ ಜನರಿಗೆ (ಮೇಲೆ ತಿಳಿಸಿದ) ವರ್ಗೀಕರಿಸಲು ನೀವು ಅನುಮತಿಯನ್ನು ನೀಡುತ್ತೀರಿ.

ಇದನ್ನು ಓದುವ ಮತ್ತು ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಪಾಲ್ಗೊಳ್ಳುವುದಾದರೆ ಅದನ್ನು ಪರಿಗಣಿಸಿದ್ದಕ್ಕಾಗಿ ಧನ್ಯವಾದಗಳು.

ಒಪ್ಪಿಗೆ ಪತ್ರ

ಅಧ್ಯಯನ ಶೀರ್ಷಿಕೆ-ವಿವಿಧಯುನಿಸಿಡಿ ಸ್ವೀಕಾರ ಮತ್ತು ಹೊರಹಾಕುವಿಕೆ ದರಗಳು - ಬೆಳಗಾವಿಕಾಹರ್ ಜ.ಎನ್. ಮಡಕಲ್ ಕಾಲೇಜ್ ಬೋಧನಾ ಆಸ್ಪತ್ರೆಯಲ್ಲಿ ಆಸ್ಪತ್ರೆ ಆಧಾರಿತ ವಿವರಣಾತ್ಮಕ ಉದ್ದದ ಅಧ್ಯಯನ.

ಪಾಲ್ಕುಳ್ಳುವವರ ಹೆಸರು: _____

ದಯವಿಟ್ಟು ಪಟ್ಟಿಯನ್ನು ಟಿಪ್ಪಣಿ ಮಾಡಿ

(i) ನಾನು ಒದ್ದಾನೆ ಅಥವಾ ಅದನ್ನು ನನಗೆ ಒದ್ದುತ್ತೇನೆ ಮತ್ತು ಮೇಲಿನ ಅಧ್ಯಯನಕ್ಕಾಗಿ ಮಾಹಿತಿ ಹಾಳೆಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಂಡಿದ್ದೇನೆ ಮತ್ತು ನನ್ನ ಎಲ್ಲಾ ಪ್ರಶ್ನೆಗಳನ್ನು ತೃಪ್ತಿಯಾಗಿ ಉತ್ತರ ಮಾಡಲಾಗಿದೆ ಎಂದು ನಾನು ದೃಢೀಕರಿಸುತ್ತೇನೆ.

(ii) ಅಧ್ಯಯನದ ನನ್ನ ಪಾಲ್ಕುಳ್ಳುವಿಕೆಯು ಸ್ವಯಂಪ್ರೇರಿತವಾಗಿರುವುದನ್ನು ನಾನು ಅರ್ಥಮಾಡಿಕೊಂಡಿದ್ದೇನೆ ಮತ್ತು ನನ್ನ ವ್ಯಾಧ್ಯಕ್ಷೀಯ ಆರೈಕೆ ಅಥವಾ ಕಾನೂನು ಹಕ್ಕುಗಳು ಯಾವುದೇ ವಿರೋಧಾಭಾಸದಿಂದ ಯಾವುದೇ ಕಾರಣವನ್ನು ನೀಡದೆಯೇ ಯಾವುದೇ ಸಮಯದಲ್ಲಿಯೂ ಹಿಂಪಡೆಯಲು ನಾನು ಮುಕ್ತನಾಗಿರುತ್ತೇನೆ.

(iii) ಎಥಿಕ್ಸ್ ಕಮಿಟಿ ಮತ್ತು ರಿಗ್ಯುಲೇಟರಿ ಪ್ರಾಧಿಕಾರಗಳು ಪ್ರಸ್ತುತ ಅಧ್ಯಯನದ ವಿಷಯದಲ್ಲಿ ನನ್ನ ಆರೋಗ್ಯ ದಾಖಲೆಗಳನ್ನು ನೋಡುವುದಕ್ಕೆ ನನ್ನ ಅನುಮತಿಯ ಅಗತ್ಯವಿಲ್ಲ ಮತ್ತು ಅದರ ಬಗ್ಗೆ ಸಂಬಂಧಪಟ್ಟಂತೆ ನಡವಳಿಕೆ ಮಾಡಿ ಯಾವುದೇ ಸಂಶೋಧನೆ ಅಗತ್ಯವಿಲ್ಲ ಎಂದು ನಾನು ಅರ್ಥಮಾಡಿಕೊಂಡಿದ್ದೇನೆ, ವಿಚಾರಣೆ. ನಾನು ಈ ಪ್ರವೇಶವನ್ನು ಒಪ್ಪುತ್ತೇನೆ. ಹೇಗಾದರೂ, ನನ್ನ ಗುರುತನ್ನು ಮೂರನೇ ವ್ಯಕ್ತಿಗಳಿಗೆ ಬಿಡುಗಡೆ ಅಥವಾ ಪ್ರಕಟಿಸಿದ ಯಾವುದೇ ಮಾಹಿತಿ ಬಹಿರಂಗ ಎಂದು ಅರ್ಥ.

(iv) ಅಂತಹ ಬಳಕೆಯು ಒದಗುವ ಈ ಅಧ್ಯಯನದಿಂದ ಉದ್ಭವಿಸುವ ಯಾವುದೇ ಡೇಟಾ ಅಥವಾ ಫಲಿತಾಂಶ ಬಳಕೆಯನ್ನು ವ್ಯಾಜ್ಞಾನಿಕ ಉದ್ದೇಶ (ಗಳು) ಮಾತ್ರ ನಿರ್ಬಂಧಿಸಲು ನಾನು ಒಪ್ಪಿಕೊಳ್ಳುತ್ತೇನೆ.

(v) ಮೇಲಿನ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಲು ನಾನು ಒಪ್ಪುತ್ತೇನೆ.

ಪಾಲ್ಕುಳ್ಳುವವರ ಹೆಸರು: _____

ವಿಷಯದ ಸಹಿ (ಅಥವಾ ಹೆಚ್ಚು ಗುರುತು): _____

ದಿನಾಂಕ (dd-mm-yyyy):

सूचना पत्र

अध्ययन शीर्षक-

पीपीआईयूसीडी की स्वीकृति और निष्कासन दर - काहेर के जेएन मेडिकल कॉलेज, बेलगावी से जुड़े अस्पताल में एक अस्पताल आधारित वर्णनात्मक अनुदैर्घ्य अध्ययन।

परिचय

महोदया, क्या मैं आपको नैदानिक शोध अध्ययन में भाग लेने के लिए आमंत्रित करने का अनुरोध कर सकता हूँ। निर्णय लेने में आपकी सहायता के लिए, मैं इस अध्ययन में आपको अध्ययन समझने और इसमें आपके लिए क्या शामिल करूंगा। इस अध्ययन में भाग लेने के लिए एक सूचित निर्णय लेने के लिए मैं आपको अध्ययन, प्रक्रियाओं, लाभों और अध्ययन के जोखिम, असुविधाओं और सावधानी बरतने के उद्देश्य को समझूंगा। इस प्रक्रिया 'सूचित सहमति' कहा जाता है। कृपया निम्नलिखित जानकारी को ध्यान से पढ़ने और दूसरों के साथ चर्चा करने के लिए समय निकालें।

एक बार जब आप निर्णय ले लेते हैं कि आप भाग लेना चाहते हैं, तो आपको सूचित सहमति फॉर्म पर हस्ताक्षर करने के लिए कहा जाएगा।

इस शोध अध्ययन का उद्देश्य क्या है?

पीपीआईयूसीडी दूरी की महत्वपूर्ण विधि है। चूंकि तत्काल पोस्टपेटम के दौरान महिलाएं अत्यधिक ग्रहणशील और प्रेरित होती हैं, इसलिए इस अध्ययन को देश के इस हिस्से में पीपीआईयूसीडी की स्वीकृति और निष्कासन दर जानने के लिए आयोजित किया जाता है। इसलिए यह अध्ययन पीपीआईयूसीडी के उपयोग को भारतीय जनसंख्या में एक लंबे समय तक अभिनय रिवर्सि गभेनिरोधक के रूप में बढ़ाने के लिए महत्वपूर्ण योगदान देता है।

व्यय और भुगतान

यह प्रक्रिया आपको बिना किसी कीमत पर प्रदान की जाती है। इस शोध अध्ययन में भाग लेने के लिए आपको कोई भुगतान नहीं मिलेगा।

अगर मैं इस अध्ययन में भाग लेता हूँ तो मेरे साथ क्या होगा?

परामर्श के बाद सूचित सहमति फॉर्म पर हस्ताक्षर करने के बाद, योनि डिलीवरी या सीजेरियन डिलीवरी के बाद, पीपीआईयूसीडी प्लेसेंटा की पूरी डिलीवरी सुनिश्चित करने के तुरंत बाद डाली जाएगी और आपको 72 घंटों के वितरण, 6 weeks, 3 महीने और 6 महीने के बाद पालन किया जाएगा।

जांचकतो कुछ व्यक्तिगत जानकारी और विस्तृत चिकित्सा इतिहास भी एकत्रित करेगा। यह अध्ययन डेटा आपके मेडिकल रिकॉर्ड्स से विशेष रूपों में लिखेगा।

जोखिम और लाभ

दर्द के पेट, रक्तस्राव, सफेद निर्वहन जैसे किसी भी प्रमुख जटिलताओं के साथ कम दुष्प्रभाव होते हैं। हालांकि, अगर क्यू-टी हटा दिया जाता है तो प्रजनन क्षमता वापस आती है।

यदि आपके पास कोई प्रश्न है:

यदि आपके पास अध्ययन से संबंधित कोई प्रश्न हैं, भविष्य में या अध्ययन से संबंधित चोट या बीमारी के मामले में, आप काहेर के जेएन मेडिकल कॉलेज, बेलगावी से जुड़े अस्पताल को पढ़ाने में REG NO. BJ0118006, Obstetrics और गायनकोलॉजीविभाग से संपर्क कर सकते हैं। पीएच संख्या _____ या मोबाइल नंबर: _____ या डॉ एम. बी बेलदप्रोफेसर और हेड, ओब्स्टेट्रिक्स एंड गायनकोलॉजी विभाग, केएलई विश्वविद्यालय के जेएन मेडिकल कॉलेज, बेलगावी पीएच .: _____ या फोन नंबर: _____।

यदि अध्ययन अध्ययनकर्ता के रूप में आपके अधिकारों के बारे में आपके कोई प्रश्न हैं, तो आप जेड मेडिकल कॉलेज इंस्टीट्यूशनल एथिक्स कमेटी ऑन जेन मेडिकल कॉलेज रिसर्च, फोन नंबर: 9448113403 जेएन मेडिकल कॉलेज, बेलगावी में पैडियटिक्स के प्रोफेसर डॉ। रूपा एम। बेलद को बुला सकते हैं।

यदि आप अध्ययन के साथ आगे बढ़ना नहीं चाहते हैं तो क्या होगा?

इस शोध में भागीदारी पूरी तरह से स्वैच्छिक है। आप भाग लेने से इनकार करने के लिए स्वतंत्र हैं या आप बिना किसी जुमोना या लाभ के नुकसान के किसी भी समय अध्ययन से वापस ले सकते हैं। वापस लेने का आपका निर्णय आपकी भविष्य की चिकित्सा देखभाल को प्रभावित नहीं करेगा। जांचकता को किसी भी समय अध्ययन समाप्त करने का अधिकार है, उदाहरण के लिए, प्रतिभागी भर्ती अपयोप्त है।

क्या आप इस अध्ययन में हिस्सा लेना गोपनीय रखा जाएगा? आपकी व्यक्तिगत जानकारी का उपयोग कैसे किया जाएगा?

अध्ययन के दौरान एकत्र की गई कोई भी जानकारी गोपनीय रहेगी। जानकारी की जांच करने और अपनी गोपनीयता को तोड़ने के बिना परिणाम की पुष्टि करने के लिए आपकी चिकित्सा फाइलों की समीक्षा केवल मुख्य जांचकता और गाइड द्वारा अस्पताल (या डॉक्टर के कार्यालय का अध्ययन) की जाएगी।

इस सहमति फॉर्म पर हस्ताक्षर करके, आप डेटाबेस में अपनी व्यक्तिगत जानकारी को संसाधित करने और अध्ययन में शामिल लोगों (उपरोक्त वर्णित) को इस जानकारी या उसके किसी भी हिस्से को स्थानांतरित करने की अनुमति दे रहे हैं।

इसे पढ़ने और इस अध्ययन में भाग लेने पर विचार करने के लिए धन्यवाद.

सहमति पत्र

अध्ययन शीर्षक-

पीपीआईयूसीडी की स्वीकृति और निष्कासन दर - काहेर के जेएन मेडिकल कॉलेज, बेलगावी से जुड़े अस्पताल में एक अस्पताल आधारित वर्णनात्मक अनुदैर्ध्य अध्ययन।

प्रतिभागी का नाम: _____

कृपया बॉक्स पर निशान लगाएं

(i) मैं पुष्टि करता हूँ कि मैंने पढ़ा है या यह मुझे पढ़ा गया है और उपरोक्त अध्ययन के लिए सूचना पत्रक को समझ लिया गया है और मेरे सभी प्रश्नों को संतोषजनक उत्तर दिया गया था।

(ii) मुझे समझ में आया कि अध्ययन में मेरी भागीदारी स्वैच्छिक है और मैं किसी भी समय बिना किसी कारण के, मेरी चिकित्सा देखभाल या कानूनी अधिकारों के प्रभावित होने के बिना वापस लेने के लिए स्वतंत्र हूँ।

(iii) मुझे समझ में आया कि नैतिकता समिति और नियामक प्राधिकरणों को वर्तमान अध्ययन के संबंध में और मेरे संबंध में किए जा सकने वाले किसी भी और शोध के संबंध में मेरे स्वास्थ्य रिकॉर्ड को देखने की अनुमति की आवश्यकता नहीं होगी, भले ही मैं इसे वापस लूँ परीक्षण। मैं इस पहुंच से सहमत हूँ। हालांकि मुझे समझ में आया कि मेरी पहचान तीसरे पक्ष को जारी या प्रकाशित किसी भी जानकारी में प्रकट नहीं होगी।

(iv) मैं इस अध्ययन से उत्पन्न होने वाले किसी भी डेटा या परिणामों के उपयोग को प्रतिबंधित नहीं करने के लिए सहमत हूँ बशर्ते ऐसा उपयोग केवल वैज्ञानिक उद्देश्यों के लिए है।

(v) मैं उपरोक्त अध्ययन में भाग लेने के लिए सहमत हूँ।

प्रतिभागी का नाम: _____

विषय के हस्ताक्षर (या अंगूठे की छाप): _____

तारीख (डीडी-एमएम-वाई):

ANNEXURE IIISCREENING FORM

Screening number:

--	--	--	--

OP/IP number:

--	--	--	--	--	--

Date of screening(dd-mm-yyyy):

--	--

 -

--	--

--	--	--	--

First name : _____ Middle name : _____

Last name : _____

Husband's name : _____

Address : H.no- _____

Street _____

Taluka _____

District _____

Phone number: _____

Husband's phone number: _____

other's address: _____

Address : H.no- _____

Street _____

Taluka _____

District _____

Mother's phone number: _____

Landline (if it is there): _____

Age (years):

Education level: _____

Haemoglobin level (gm /dl):

(1)Yes (2)No

Fever during labour or delivery:

Active STD during labour or delivery:

Prolonged rupture of membranes:

(>18 hrs prior to delivery)

Uterine anomalies :

Post partum haemorrhage:

Any history of allergy to IUCD :
(in case of prior use)

(1)Yes (2)No

Eligible :

Consented :

**ANNEXURE IV - PROFORMA
DATA COLLECTION INSTRUMENT**

Screening number:

Enrolment number:

Score	Mode of delivery	Gender of the baby	Birth weight	Age of the baby	Place of delivery	Intra partum or post partum complications
Para						
Living						
Death						
Miscarriage/MTP						

Obstetric score: Gravida para living death miscarriage/MTP

LMP (dd-mm-yyyy):

EDD (dd-mm-yyyy):

Corrected EDD (if any) (dd-mm-yyyy):

Period of gestation: weeks days

Time of counselling

Mode of delivery:

(1) yes (2) no

Vaginal delivery:

Caesarean section: if yes, please specify indication: _____

Date of insertion:

FOLLOW UP VISITS

At 72 hour (date of visit):

-

(1)Yes

(2) No

Pain abdomen:

Fever:

Excessive vaginal bleeding:

Foul smelling vaginal discharge:

Expulsion:

Perforation:

Removal:

Physical:

By visit:

By communication:

At 6 weeks (date of visit):

--	--	--	--	--	--	--	--

(1) Yes(2) No

Pain abdomen:

Fever:

Excessive per vaginal bleeding:

Foul smelling vaginal discharge:

Expulsion:

Perforation:

Removal:

Physical:

By visit:

By communication:

At 3 months (date of visit):

(1)Yes (2) No

Pain abdomen:

Fever:

Excessive per vaginal bleeding:

Foul smelling vaginal discharge:

Expulsion:

Perforation:

Removal:

Physical:

By visit:

By communication:

At 6 months: (date of visit):

(1) Yes (2) No

Pain abdomen:

Fever:

Excessive per vaginal bleeding:

Foul smelling vaginal discharge:

Expulsion:

Perforation:

Removal:

Physical:

By visit:

By communication:

FINAL OUTCOME

(1)Yes (2) No

Pain abdomen:

Fever:

Excessive per vaginal bleeding:

Foul smelling vaginal discharge:

Expulsion:

Perforation:

Removal:

Any other: specify _____

100	975805	23	PUC	09.10.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
101	971214	28	B Ed	09.10.2019	2	2	2	2	2	2	1	2	2	2	0	0	0	0	0	0
102	975828	20	PUC	09.10.2019	2	2	2	1	2	2	2	2	2	2	0	0	0	0	0	0
106	976051	25	B Com	09.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
111	975785	31	B Ed	09.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
117	975810	26	10 TH	09.10.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
118	975920	30	10 TH	09.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
122	976074	19	B Com	09.10.2019	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
124	976067	22	6 th	09.10.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
126	976045	23	PUC	10.10.2019	2	2	2	1	2	2	2	2	2	2	0	0	0	0	0	0
128	976223	22	PUC	10.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
131	975966	28	10 TH	10.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
134	976061	23	10 th	10.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
138	976111	32	B A	10.10.2019	2	2	2	2	2	2	1	2	2	2	0	0	0	0	0	0
143	975932	36	4 TH	10.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
149	976234	29	B A	10.10.2019	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
150	976089	22	PUC	10.10.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
155	976242	23	10 TH	10.10.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
156	980679	24	10 TH	10.10.2019	2	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
158	980447	26	B E	02.11.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
161	980890	23	PUC	03.11.2019	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
163	5431393	22	PUC	04.11.2019	2	2	2	2	1	2	2	2	2	2	0	0	0	0	0	0
164	980677	25	B Com	11.11.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
167	939101	23	PUC	11.11.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
168	980678	25	B Ed	4.11.2019	2	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
169	982885	21	PUC	16.11.209	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
170	980520	20	8 TH	01.11.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
171	980576	21	MSc	01.11.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
172	980560	30	B Ed	01.11.2019	2	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
177	979892	30	MSc	01.11.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2

179	983827	23	10 th	16.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
180	980921	21	B A	3.1102019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
181	980559	21	PUC	01.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
182	980926	20	PUC	03.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
188	980899	25	B Sc	03.11.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
189	980895	19	B Ed	03.11.2019	2	2	2	2	2	1	2	2	2	0	0	0	0	0	0
190	980850	23	PUC	03.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
191	980790	32	B Ed	02.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
192	980870	24	10 TH	02.11.2019	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
193	980555	21	10 TH	02.11.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
194	980536	19	PUC	02.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
195	980835	29	B Sc	02.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
200	980848	30	6 TH	02.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
201	980816	21	PUC	02.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
202	980652	26	10 TH	02.11.2019	2	2	2	2	2	1	2	2	2	0	0	0	0	0	0
203	980440	25	B A	02.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
204	980631	24	PUC	02.11.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
205	980687	30	10 TH	02.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
206	973611	25	PUC	02.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
211	980565	22	B Com	01.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
213	980564	25	Degree	01.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
214	983580	26	PUC	14.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
215	984078	22	PUC	17.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
217	984061	21	10 th	17.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
218	984023	24	B A	17.11.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
220	984002	20	PUC	17.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
222	983921	23	B Ed	16.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
223	983577	39	10 TH	16.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
225	983064	25	B Ed	16.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
226	983897	33	B Com	16.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2

232	983548	31	B Ed	15.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
234	983509	36	B Ed	14.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
235	983567	27	B Ed	15.11.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
236	981684	26	PUC	15.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
237	983313	28	PUC	15.11.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
239	983564	24	PUC	15.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
240	983773	28	PUC	15.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
242	983737	23	PUC	15.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
246	983053	28	B A	15.11.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
247	983753	21	PUC	15.11.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
250	983878	26	B Ed	16.11.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
251	987292	18	10 TH	03.12.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
252	986935	28	PUC	02.12.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
253	987040	30	B A	03.12.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
254	987263	26	10 TH	04.12.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
256	987181	26	10 TH	05.12.2019	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
258	5536890	19	B A	15.12.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
259	987839	28	B A	06.12.209	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
261	987843	23	PUC	06.12.209	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
262	991110	22	PUC	22.12.2019	2	2	2	2	2	1	2	2	2	0	0	0	0	0	0
263	988115	31	B Ed	07.12.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
265	986585	27	PUC	07.12.2019	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
266	988270	24	B A	08.12.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
267	988313	29	B Com	08.12.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
268	988173	24	B A	08.12.2019	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
271	988099	30	10 TH	09.12.2019	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
272	988370	24	PUC	09.12.2019	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
274	988563	26	B Ed	10.12.2019	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
275	988186	25	PUC	11.12.2019	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
276	988875	23	10 TH	10.12.2019	2	2	2	2	2	1	2	2	2	0	0	0	0	0	0

279	989026	25	10 TH	12.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
280	988992	28	B A	13.12.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
283	989360	23	PUC	13.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
284	989463	25	M B A	14.12.2019	2	2	2	2	1	2	2	2	2	2	0	0	0	0	0	0
285	988022	19	B A	15.12.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
286	988050	27	B Com	06.12.2019	2	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
288	989548	26	PUC	14.12.2019	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
289	989774	26	PUC	16.12.2019	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
290	990022	25	B Ed	16.12.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
293	990055	21	PUC	16.12.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
295	989719	28	PUC	15.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
296	989804	25	PUC	16.12.2019	2	2	2	2	1	2	2	2	2	2	0	0	0	0	0	0
297	990255	22	B A	17.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
298	990393	26	PUC	19.12.2019	2	2	2	2	1	2	2	2	2	2	0	0	0	0	0	0
299	990366	32	B Com	20.12.2019	2	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
306	990473	20	B A	18.12.2019	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
307	990244	23	PUC	18.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
308	990211	32	B Ed	17.12.2019	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
310	986048	26	PUC	18.12.2019	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
315	991425	22	10 TH	23.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
316	991206	24	B Ed	23.12.2019	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
320	991429	22	PUC	24.12.2019	2	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
321	991426	25	B Ed	24.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
322	991424	23	B A	24.12.2019	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
326	991489	27	B Ed	23.12.2019	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
328	991636	34	MSc	24.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
331	991655	20	DeGREE	24.12.2019	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
332	991073	29	B Ed	25.12.2019	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
333	991818	28	B A	26.12.2019	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
336	991874	29	B Ed	26.12.2019	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2

338	994239	20	PUC	09.01.2020	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
340	994596	32	B Ed	09.01.2020	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
342	994458	25	B A	08.01.2020	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
343	994309	25	PUC	08.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
346	994390	19	PUC	08.01.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
347	944322	24	10 TH	08.01.2020	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
349	994112	27	PUC	07.01.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
350	994250	26	10 TH	07.01.2020	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
351	994086	23	PUC	07.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
354	993825	28	B Com	06.01.2020	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
355	993759	27	B Ed	05.01.2020	2	2	2	2	2	1	2	2	2	0	0	0	0	0	0
356	993647	36	B Ed	05.01.2020	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
358	993657	25	PUC	04.01.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
360	993482	26	B Ed	03.01.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
361	993016	30	B Com	03.01.2020	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
362	993288	23	PUC	02.01.2020	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
365	993094	28	PUC	01.01.2020	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
366	993226	23	B A	02.01.2020	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
367	993108	20	PUC	02.01.2020	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
368	992644	19	PUC	01.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
369	997911	21	PUC	29.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
372	997995	22	PUC	28.01.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
373	998096	25	B A	28.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
374	997878	25	PUC	27.01.2020	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
377	998132	29	M Sc	28.01.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
378	997849	31	B Com	26.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
382	997840	31	B Com	27.01.2020	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
383	997773	22	PUC	26.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
384	997519	19	PUC	24.01.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
385	997077	24	PUC	24.01.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0

389	998980	24	PUC	21.01.2020	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
390	996405	23	10TH	20.01.2020	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
391	996340	24	PUC	19.01.2020	2	2	2	2	1	2	2	2	2	2	0	0	0	0	0	0
393	996134	23	PUC	18.01.2020	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
394	995753	22	10 TH	17.01.2020	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
395	995652	21	PUC	15.01.2020	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
396	995473	21	PUC	15.01.2020	2	2	2	1	2	2	2	2	2	2	0	0	0	0	0	0
398	995424	20	PUC	14.01.2020	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
399	994743	30	B Ed	10.01.2020	2	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
400	994861	33	PUC	10.01.2020	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
401	994784	27	B A	10.01.2020	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
402	994792	21	PUC	10.01.2020	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
404	993658	30	B Ed	10.01.2020	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
405	994775	20	PUC	09.01.2020	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	2
406	999007	21	PUC	04.02.2020	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
407	1000995	24	B Ed	20.01.2020	2	2	2	2	1	2	2	2	2	2	0	0	0	0	0	0
408	1000208	29	10 TH	13.02.2020	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
410	999600	37	B Ed	13.02.2020	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
411	1001170	21	PUC	12.2.2020	2	2	2	2	2	2	2	2	2	1	2	2	2	1	2	2
416	1000164	30	PUC	12.2.2020	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
417	999978	26	PUC	12.12.2019	2	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
418	1000648	26	10 TH	10.02.2020	2	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
419	1000344	23	PUC	10.02.2020	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
421	1000411	21	PUC	09.02.2020	2	2	2	2	1	2	2	2	2	2	0	0	0	0	0	0
422	1000410	24	B A	09.02.2020	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
424	1000173	26	PUC	08.02.2020	2	2	2	1	2	2	2	2	2	2	0	0	0	0	0	0
425	1000272	24	PUC	08.02.2020	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
429	999856	32	PUC	06.02.2020	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2
431	996071	30	B Com	05.02.2020	2	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
433	999626	18	10 TH	05.02.2020	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2

436	999379	29	PUC	03.02.2020	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0
439	999284	22	10 TH	03.02.2020	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2
440	999163	30	3RD	03.02.2020	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2
455	997975	29	10TH	29.01.2020	2	2	2	2	1	2	2	2	2	0	0	0	0	0	0
456	999163	30	3RD	03.02.2020	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2



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