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"A STUDY TO ASSESS THE IMPACT OF AWARENESS PROGRAM ON CHILDBIRTH PREPARATION AND MATERNAL-NEONATAL OUTCOMES AMONG PRIMIGRAVIDA IN SELECTED HEALTH CENTER OF KARNAL"

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ABSTRACT

Statement of problem:

A study to assess the impact of awareness program on childbirth preparation and maternal-neonatal outcomes among primi gravida in selected health center of karnal

Introduction

Childbirth causes physical and intellectual adjustments to pregnant girls. The lady's childbirth revel in may be very critical and her childbirth reminiscences remain alive for lifetime. Childbirth practice packages have shown to sell girls expertise, expectation and experience of childbirth. Childbirth preparation program can make a symbolic difference to a ladies childbirth revel in. The reason of the take a look at was to evaluate the efficacy of comprehensive childbirth preparation package deal on childbirth reviews and maternal-neonatal effects among primigravidae in decided health center of karnal.

Technique

The existing take a look at was conducted in phases. In segment I, exploratory research method was followed to discover childbirth preparedness and childbirth experiences based totally on which a want primarily based complete childbirth practice bundle became advanced and in section II a randomized manage trial became carried out to evaluate efficacy of comprehensive childbirth coaching package on childbirth stories and maternal-neonatal consequences. Primigravidae among 28-34 weeks had been allocated to experimental and

manage organization by means of easy random sampling approach. Records series process became commenced after obtaining ethical, administrative permission and consent from the contributors. Pre-test was performed in both the organizations and intervention became added as soon as per week for a duration of three weeks. Submit-take a look at became performed on 15th day of the intervention to evaluate childbirth preparedness, childbirth expectation. On third day of transport publish-test become executed to assess childbirth reviews, childbirth fear, labour final results and breast-feeding self-efficacy. On 7th day and 6th week of transport postnatal consequences of mom and baby became assessed.

Outcomes

There has been no substantial difference within they imply pre-test scores of childbirth preparedness among companies ($p = 0.27$) and a statistically great difference turned into located in put up check scores of childbirth preparedness ($p = 0.07$). The pre-check childbirth expectation ratings had no large difference among experimental and manage group ($p = 0.25$), whereas, statistically widespread distinction become located in submit-check childbirth expectation ratings among experimental and manipulate group ($p \leq 0.001$). These well-known shows that comprehensive childbirth instruction bundle became powerful in terms of childbirth expectation. A statistically huge difference among look at participants in experimental and control institution in childbirth worry rankings ($t = 5.65$, $p = 0.001$) while no distinction turned into located at pre intervention stage in childbirth fear ($t = 0.22$, $p = .28$) between companies. Extensive difference became found in imply score of labor and beginning revel in among experimental (103.5 ±5.7) and manipulate institution (85.9±6.5) at $p = .001$. Maternal−neonatal consequences among experimental and manipulate institution in phrases of hard work final results and breast-feeding self-efficacy located to be vast at ($p<0.5$).

End

The complete childbirth training package deal becomes effective in terms of childbirth studies and maternal-neonatal final results. From the findings of the look at end may be drawn that primigravidae who have been exposed to complete childbirth practice bundle have been having appreciably effective childbirth experiences and better maternal-neonatal final results than the control group.

1. INTRODUCTION

An awareness program significantly improves childbirth preparation and maternal-neonatal outcomes for primigravidae, according to a study in Karnal. The program was effective in increasing knowledge and leading to better practices, such as spontaneous labor, vaginal delivery, and more positive outcomes for newborns.

Childbirth may be a lifestyles altering enjoy for woman and their families. It's miles the foremost exciting period of expectation and success and may be a unique herbal present to ladies. Organic process may be a effective lifestyles occasion that indicators sort of high-quality physiological and psychological transformation for ladies. Beginning expectations are dynamic and complex. Studies advocate that pregnant ladies have both terrible and high-quality expectation of childbirth and they relate these expectations in several approaches to delivery studies.

Childbirth reasons physical and mental adjustments to pregnant ladies. The woman's childbirth revel in could be very essential and her childbirth reminiscences remain alive for lifetime. The four primary predictors of ladies' childbirth experience are their personal expectation from start level of cooperation from companion and care giver the relationship among midwife and female and the role of lady in taking decision advantageous focus of the childbirth enjoy can lessen tension and despair in primi paras.

Girls had been always prepared for childbirth. Historically, moms of all cultures have handed on know-how of childbirth to their subsequent technology. Those cultural and circle of relatives ordinances have directed ladies through a series of pregnancies, childbirth, and motherhood. A good deal of the lady's insight on birthing modified whilst childbirth was transferred from home to the maternity centers. Delivery has been completely medical zed cultural and circle of relatives ordinances have dwindled into the heritage and eventually disappeared. They enjoy of childbirth hyperlinks several components like psychological, physiological, spiritual, cultural and social. Several studies have categorized childbirth experience as nice and poor outcomes of superb start studies includes growth in self-esteem, increase in self-self belief, maternal- toddler bonding and early maternal function acceptance on the opposite hand bad birth studies increases the risk of cesarean also boom the space between subsequent being pregnant or quite viable that ladies may also abstain from future pregnancy. Effective childbirth revel in has advantageous effect on maternal-neonatal results that is highlighted by new tips launched by WHO.

- **Increased knowledge:** Awareness programs substantially increased primigravidae's knowledge of birth preparedness and complication readiness.
- **Positive maternal outcomes:** The program group showed a higher incidence of spontaneous labor and vaginal delivery.
- **Positive neonatal outcomes:** The experimental group had better outcomes for newborns, such as higher APGAR scores and more live births.
- **Improved practice:** The program led to more adequate practices related to essential newborn care and a reduction in inadequate practice.
- **Empowerment:** Studies show that structured antenatal education empowers first-time mothers by reducing anxiety, encouraging informed decision-making, and facilitating safer childbirth experiences.
- **Relationship between knowledge and practice:** There is a strong association between improved knowledge and improved practice regarding newborn care.
- **Potential for integration:** The findings support the integration of such education programs into routine antenatal services to improve public health outcomes.

2. BACKGROUND OF THE STUDY

Thought and birthing are very important activities in existence of a female and most of the girls have a plan or positive expectancies associated with their exertions. Forming expectation for widespread activities of lifestyles help to prepare physically and mentally for the experience research suggest that in case those expectations associated with childbirth aren't met it may result in dissatisfaction and negative results women may additionally have expectancies associated with one of a kind elements of birth like pain, manage, emotions, labor activities and so on. Systematic assessment suggest that pregnant girls may have expectancies concerning care of newborn, economic assist, help of spouse and family individuals, personal position and role in their associate as figure. Mismatch of childbirth expectancies and stories are related to start dissatisfaction, and can also boom the risk of posttraumatic pressure ailment.

A scientific assessment revealed that actual experiences of women do now not correlate with expectations of female associated with childbirth. Realistic expectations of self-discipline for the duration of delivery are at once associated with greater birth delight.10 practical expectancies are related to tremendous experiences of labor, and correlate with participation in childbirth schooling lessons several research display that knowledgeable girls utilize reproductive fitness offerings efficiently. Schooling of girls positively impact their as well as fitness in their kids.

Large thing in the back of negative expectation and reviews is childbirth fear. A descriptive look at of antenatal girls in 5 maternity clinics of Egypt becomes conducted with the goal to look at the elements associated with childbirth worry and its relation with women's preference for caesarean segment. Findings of the study showed 47.8% women preferred caesarean section and important reason for opting caesarean phase became fear of vaginal delivery and pain associated with delivery. The elements associated with caesarean shipping have been fear of pain, lacerations and episiotomy.

A cross-sectional examine performed in Ethiopia describes that general childbirth preparedness must encompass the elements: an anticipation start location, selection of start attendant the space of the closest medical institution for childbirth and identity of beginning companion. Childbirth guidance package deal enables to plot in advance approximately being pregnant headaches, emergency treatment and childbirth care in phrases of value, transportation, and blood arrangement.

Systematic peer reviewed magazine seek was performed in quantitative and qualitative studies the use of Scopus database and primo seek, between 2015 and 2020. The studies of start preparedness and worry readiness were reviewed from twenty articles. The look at synthesis showed two interconnected issues that is information of start preparedness and hassle readiness and boundaries to implementation of expertise. The findings in systematic evaluation discovered that expertise amongst primi mothers have been negative in chance symptoms of being pregnant and implementation of delivery training components. Training, antenatal visits, parity, place of house, financial troubles, employment, information on risk signs, distance of medical institution from home and involvement of circle of relatives participants have been large determinants of birth preparedness.

In lots of advanced nations, pregnant mothers attend antenatal training instructions to recognize about to be had delivery selections and make selections, know about diverse conditions like strategies of pain relieving, postnatal and newborn care techniques of breast feeding and parenting.16,17 A quasi-experimental observe changed into conducted among sixty antenatal mothers to assess the blessings of prenatal coaching concerning awareness on beginning preparedness and its outcome. The observe findings revealed that the prenatal schooling was useful in

enhancing the know-how and consciousness on childbirth preparation amongst antenatal mothers and childbirth education become additionally undoubtedly correlated with maternal and fetal outcomes.

Pregnant ladies enjoy apprehension and fear in conjunction with exhilaration. A lady's childbirth enjoy may additionally get affected with superb and poor feelings she undergoes throughout beginning. Childbirth training performs a pivotal role inside the psycho-social and physical training. Childbirth education organization girls broaden greater confidence, willpower, self-efficacy in newborn care, reduced childbirth fear.22 via creating a sensible childbirth expectation, childbirth training businesses assist ladies to remember and empowered at some point of the birthing process delivery training lessons improve the extent of childbirth guidance and self-control in the course of labor and also beautify self esteem. There are various challenges at some stage in being pregnant, postnatal duration and childbirth schooling have supportive benefits.

3. Need for the study

Most of the maternal deaths are avertable. The powerful approach to avoid maternal mortality is skilled antenatal care, green midwifery care throughout labor and after delivery. Due to lack of childbirth coaching there are various evidences which are associated with put off in selection making, reaching and receiving care. Each pregnant woman is entitled for high-quality care for the duration of being pregnant, exertions and postnatal period regardless of religion, race, perception, caste, and social situation. The BPCR approach aims at ladies empowerment to facilitate pregnant girls in making the proper decision at the right time. Childbirth training and preparation classes are furnished for antenatal women in maximum of the developed international locations, but in developing international locations, such as India, such instruction classes aren't accomplished nicely. Foremost fitness groups have accredited that pregnant moms were benefitted from the antenatal program. Pregnancy is a considerable part of a girls existence that's associated with childbirth fear. Tension associated with childbirth creates a mental threat from the prediction of undesired occasions inside the future that is common in first time moms. The superiority of slight and intense anxiety is expected to be 86.4%. Anxiety and fear at some stage in being pregnant will increase risk of harmful maternal-fetal outcomes and require mental intervention.

The sturdy blessings of childbirth coaching software are accelerated childbirth self-efficacy, reduced anxiety, higher breast-feeding self-efficacy and advanced interaction among antenatal mothers and the midwife, reduced scientific intervention at some point of exertions, and elevated childbirth pride. Applications which have gained recognition in western countries are hypo birthing and calm delivery. Childbirth coaching packages have proven to sell ladies' decision on baby delivery care, have more suitable antenatal mom's childbirth expectancies and data on childbirth. Childbirth education program could make a symbolic distinction to a ladies childbirth experience. Those applications prepare a parturient to cope with hard work ache and cause them to sense "cared about themselves." this sense of "being cared for" impacts their feel self belief and beginning pleasure.

India, the developing has a populace of 138 crore humans that strives to provide high first-rate fitness care with nicely prepare health care system.38 Indian nurses and midwives keep most important duty of presenting prenatal care to large populace of pregnant women thru %, CHCs and hospitals. Antenatal care in India is bound to habitual laboratory and radiological checking out and examinations that are often no

longer known to girls. There is no such childbirth or antenatal education applications that take place or are organized to evaluate the education demands of women. In India, most effective approximately 21% pregnant women acquire ANC. During caste, maternity education and settlements unfair use of ANC become located. Half of of the Indian ladies couldn't acquire the least advocated prenatal go to.

There is no childbirth schooling application that could verify or cowl the exigencies of antenatal ladies. Over eight hundred and thirty women die every day from preventive reasons related to being pregnant and hard work. Majority of those deaths occur inside the South Asian location. The lifetime threat of a pregnant female dying from pregnancy or transport is set 1 in two hundred in India and about 1 in 4900 in different developed countries40, lots of 7 which may be stopped by skilled and timely exigent maternity care. But, access to scientific services is constrained. There are delays to seek care, usage of offerings, arrive at a medical facility and also lack of awareness on danger indicators of being pregnant and labour.

4. Purpose of the study

The examiner reason is to adapt complete childbirth preparation package deal after identifying the want and to put in force it that allows you to compare its effectiveness on childbirth studies and decided on maternal-neonatal results.

5. Operational Definitions

1. **Efficacy** refers to an extent comprehensive childbirth preparation package is effective in promoting positive childbirth experiences and better maternal-neonatal outcomes.

2. **Comprehensive childbirth preparation package (CCBPP)** refers to need-based multi component education program developed by investigator for primigravidae to improve their knowledge and confidence about birth process and to reduce childbirth fear and to promote positive childbirth experiences and better maternal-neonatal outcomes.

3. **Childbirth experience** refers to experience of primigravidae while passing through the period around childbirth. It is defined in terms of:

a) Childbirth preparedness refers to the extent to which primigravidae are prepared in terms of childbirth plan, knowledge about labor process medical intervention during labor, and danger signs of childbirth as measured by structured childbirth preparedness questionnaire. b) Childbirth expectation refers to expectation of primigravidae related to childbirth process in terms of pain/coping, intervention, nursing support, and significant other as measured by childbirth expectation questionnaire. c) Childbirth fear refers to fear related to childbirth process among primigravidae as measured by delivery expectancy/experience questionnaire. d) Experiences of labor and birth refers to experience of labor and birth among primigravidae in terms of own capacity, participation, professional support, and perceived safety as measured by childbirth experience questionnaire.

4. **Maternal-neonatal outcomes** refers to labor outcome, breastfeeding self-efficacy, postnatal outcome of mother and baby as measured by maternal-neonatal outcome Performa and breast feeding self-efficacy measured by breast feeding self-efficacy scale. 5. **Primigravidae** is women pregnant for the first time and is in 28–34 weeks of pregnancy.

6. OBJECTIVE

1. Explore childbirth preparedness and childbirth studies among primigravidae in selected health facility.
2. Increase and enforce a want primarily based complete childbirth training package deal for primigravidae.
3. Investigate the efficacy of complete childbirth education bundle on childbirth stories among primigravidae by way of comparing childbirth stories among experimental and manipulate organization.
4. Verify the efficacy of comprehensive childbirth education package on decided on maternal-neonatal effects among primigravidae by means of comparing maternal-neonatal results among experimental and control organization.

7. Assumption

1. Primigravidae may additionally have a few information on childbirth procedure.
2. Consciousness related to childbirth may additionally have an impact on self assurance and fear associated with childbirth.
3. Expectation may additionally impact stories.
4. Worry of unknown can have an impact on expectation and reports.
5. Value of strength of will all through labor can influence childbirth stories.
6. Childbirth experience can also have an influence on bodily and intellectual fitness of the moms.
7. Mothers might be willing to study concerning childbirth guidance.
8. Prospective mothers anticipate glad and safe birthing.

8. Hypothesis

Hypothesis will be tested at 0.05 level of significance.

H1: Primigravidae in experimental group will have positive childbirth experiences than the primigravidae in control group.

H2: Primigravidae in experimental group will have better maternal-neonatal outcome than the primigravidae in control group.

9. Conceptual Framework

In research conceptual framework is used to delineate the future course of action and to present a selected approach into an idea. In the present study Bandura theory of self-efficacy was adopted for developing conceptual framework. The theory was introduced by Albert Bandura. He coined the word “self-efficacy”. It can be defined as an individual’s confidence on their ability to execute course of action while dealing with a prospective situation. Bandura believes that perceived self-efficacy influences all factors of behavior, main in acquiring of recent behaviors or even to manipulate or termination of present behavior. Individuals with higher self-confidence are likely to interact with strong behavior and provide higher expositions of health-related behaviors. Also, without difficulty they are able to manage their behavior. In addition, self-efficacy performs a crucial function in coordinating the connection among man or woman know-how to behave.63-65 Therefore researcher applied the Bandura theory of 15 self-efficacies to estimate the efficacy of comprehensive childbirth preparation package on childbirth experience and selected maternal-neonatal outcomes among primigravidae. According to Bandura, individuals develop self-efficacy from four major sources:

10. REVIEW OF LITERETURE

Systematic overview and meta-evaluation on training outcomes of antenatal mothers on childbirth preparation and problem awareness were conducted. Meta-regression was accomplished to narrate the outcomes of the characteristics, which include pattern size, pregnancy registration, and place. They enrolled the handiest observational research in evaluation. They blanketed 20 researches on 13,744 pregnant women, of which 15 researches stated outcomes of maternal training on beginning preparedness and problem readiness. Prevalence of problem awareness and preparation was 16.5%– 56.3%. Overall envisioned stage of beginning preparation and problem awareness was 25.2%. Meta-evaluation determined that childbirth training was undoubtedly associated childbirth preparation and problem awareness. Antenatal mothers who receive childbirth training are more organized and equipped for obstetric exigency (OR = 2.4, 95% CI: 1.9, 3.1) than untrained mothers. Maternal training has a fantastic impact on the extent of beginning preparedness and problem readiness

Gerung et al. conducted cross-sectional study among 305 pregnant women; the purpose of the study was to appraise status of birth preparation and promptness for complication among rural antenatal mothers. The result of the study showed that only 157(51.4%) women were prepared to face birth among 305 pregnant women. 21 Childbirth preparation factors were being aware of date of delivery (OR = 2.4, 95% CI) and one danger sign of labor (OR = 2.8, CI = 95%). The study concluded that low preparedness was because of inadequate maternal knowledge on birth preparedness.

Pregnant women were lacking knowledge about component of birth preparedness. A descriptive study conducted estimates knowledge level on birth preparation and its complication among first-time mothers visiting selected health facilities. Four hundred forty-two respondents were enrolled through simple random sampling. Data were collected by interview questionnaire. The observation proves that the respondents have been informed on threat signs and symptoms in pregnancy, labor, postnatal, and neonatal care 113(26.8%), 47(11.1%), 60(14.2%), and 46(10.9%), respectively. About birth preparation, 64(15.2%) of primigravidae have been informed. They discovered that the primigravidae have been married [AOR = 0.110, 95% CI (0.026, 0.461)], maintain monthly earnings of 1000–3000 [AOR = 3.362 (1.203, 9.393)], informed for key threat signs and symptoms of labor with [AOR = 3.685, 95% CI (1.157, 11.737)] and informed for key threat signs and symptoms of postpartum duration with [AOR = 5.117, 95% CI (1.388, 18.863)].

Poor birth preparedness is also related to high level of fear of birth. Descriptive survey among prenatal mothers in rural villages of Karnataka was conducted with objective to study fear of childbirth and related factors. The study results revealed that among 388 women, 176(45.4%) had childbirth fear. The common factors related to childbirth fear were lacking confidence in childbirth, scared of the childbirth, and fear of medical interventions like caesarean section. The study concluded that it is vital to identify childbirth fear and to provide child birth in formation and reassurance to the 22 mother to improve maternal and fetal outcome.

Poor maternal education level is related to poor knowledge of danger signs of pregnancy. A study conducted on occurrence and prediction of childbirth preparation, awareness on health threatening signs and level of problem exigency among antenatal mothers in a tertiary care hospital. Six hundred women were interviewed

as per JHPIEGO "Monitoring BP/CR tools and indicators for maternal and newborn health". The results showed that 71.5% women were birth prepared. Predictors of birth preparedness are multiparity, registration in the antenatal clinic, educational status of women, and pregnancy supervision by a doctor. The study revealed that readiness for emergency, and danger signs awareness is poor and education of women and early antenatal registration were associated with birth preparedness.70 Uneducated women have less awareness of antenatal visits and the advantage of childbirth preparation. Across sectional survey in rural Bangladesh was conducted with 2,897 women who had recently delivered. The study aimed to assess the level of prenatal readiness and susceptibility to complications in women who gave birth recently, and to assess the impact of enhanced maternity readiness on the health habits of mothers and newborns. As a result, less than a quarter of women were ready to give birth. Predictors of good preparation included her husband's education, place of residence, media exposure in the form of reading newspapers, and how to receive three antenatal visits.

A cross-sectional study in Oromia, regional state of Ethiopia, was conducted from 3,612 pregnant women. Data was collected by structured questionnaire based on interview schedule. Study aimed at identification of factors influencing childbirth 23 preparedness. Study results revealed birth preparedness was 23.3% and complications readiness was 24.9% (95% CI). Factors enhancing birth preparedness were on higher level of distance between health center and urban residence. The other factors influencing birth preparedness were educational status of the women, husband occupation, knowledge about danger signs, and number of antenatal visits. Associated factors of childbirth preparedness were demographic and socioeconomic profile, knowledge about danger signs related to pregnancy, attitude, and antenatal care visit

Systematic peer reviewed journal search was conducted in quantitative and qualitative studies using Scopus database, and primo search between 2010 and 2015. The experiences of birth preparedness and complication readiness (BP/CR) were reviewed from twenty articles. The study synthesis showed two interconnected themes that are knowledge of BP/CR and barriers to implementation of knowledge. The findings in systematic analysis revealed that knowledge among primigravid mothers was higher on awareness to pregnancy life threatening signs, and the implementation of birth preparation. Significant determinants of birth preparation were education, ANC visits, parity, place of residence, financial issues, employment, distance of health facility from home, and involvement of family members. The systematic analysis recommended studies to transform birth preparedness into birth practice.73 A descriptive cross-sectional study was conducted among primigravida women who had delivered in last 1 year and were admitted in municipality hospital of Chitwan, Nepal. The study was conducted among 165 primigravida women. The tool of data collection was pre-tested using semi-structured questionnaire. Study findings revealed that 61.9% of the primigravid mothers do the ANC visits as per protocol. Majority of women, 57.7%, stated lack of information for not attending regular ANC visits. About 52.5% women had better counseling during ANC and 77% w o m e n had heard about childbirth preparedness, 48.8% primigravidae felt no need to prepare for childbirth. Those mothers who were having childbirth preparedness had a better knowledge of birth preparedness component, knowledge about danger signs, regular antenatal visits, and joint decision-making involving husband.74 Descriptive study in South West Ethiopia was conducted with 605 primigravidae. Sample selection was done by simple random

sampling. The aim of the study was to explore the factors influencing birth preparedness among pregnant women. The survey revealed that 285(48.4%) and 249(42.3%) participants had knowledge, and practices regarding childbirth preparation, respectively. Women's occupation (AOR 3.1; 95% CI: 1.1–8.2), place of residence (AOR 2; 95% CI: 7.3–20.4), knowledge of risk signs during pregnancy (AOR 1.8; 95% CI: 1.1–2.3) proved to be highly significant. Study concluded that status of childbirth preparedness was low and the associated factors with low-birth preparedness were occupation, place of residence, knowledge about birth preparedness, and danger signs during pregnancy.

11. METHODOLOGY

The present research study is conducted in two phases. In Phase I, an exploratory survey was done to explore childbirth preparedness and childbirth experiences. In Phase II, a randomized control trial with multiple observations was conducted to estimate the efficacy of comprehensive childbirth preparation package (CCBPP) and maternal-neonatal outcomes.

Research approach and design

Qualitative approach and exploratory phenomenological design were used in Phase I of the study to explore childbirth preparedness and childbirth experiences.

Research setting

Study was conducted in selected health center of karnal. Community health center covers 135 villages in 559.96 sq km with a population of 3,50,000. Present study setting was selected based on the need of the population and convenience of the investigator. The community health center is equipped to provide 24 hours and 7 days delivery services, emergency obstetric care including caesarean section and newborn care. The total number of 47 normal deliveries in average approximately is 600 per month and total number of antenatal OPD is 1,800 per month.

Population and sample

In order to explore the childbirth preparedness, 15 primi gravidae between 24–34 weeks of gestation willing to participate were chosen by purposive sampling technique. Primi gravidae who were more than 35 years of age, mentally challenged or suffering from any mental illness, having history of abortion, having complications like mal-presentations, eclampsia, or gestational diabetes, were excluded.

For exploring the childbirth experiences 100 primi parous women in 3rd day of delivery were selected by purposive sampling technique. Those who were suffering from delayed stress disorder, postpartum psychosis and depression or any complication during childbirth like caesarean section, or instrumental delivery were excluded.

Sample

Sample size of the study was 100 primi gravidae in 28–34 weeks of gestation. It was estimated from a similar study7 to achieve power 80% (β) at 5% level of significance (α) sample size calculated was 88 with 44 in each group. Sample size estimation was also done through pilot study findings, effect size was calculated to be 0.60, and minimum total sample size required was 90. Assuming 10% of dropouts, investigator selected total 100 sample of primi gravidae with 50 in each group.

Sampling technique

Primigravidae attending antenatal OPD were screened for eligibility criteria. All the primigravidae who met inclusion criteria and were willing to participate were included in the study. Random allocation software was used to prepare sequentially numbered concealed envelopes with the help of a statistician. The primigravidae were allocated to intervention and control groups by concealed randomization. Participants picked the sealed envelope and were accordingly assigned to the respective groups.

Selection criteria of the participants:

Inclusion criteria: Primigravidae who are:

1. In 28–34 weeks of pregnancy.

2. Having antenatal registration with selected health center.

3. Willing for delivery and postpartum care in selected health center.

4. Having a smart phone and using what's App.

Exclusion criteria: Primigravidae who are:

1. Above 35 years of age

2. Having history of habitual abortion

3. Having complications like mal-presentations, eclampsia, and gestational diabetes mellitus

4. Suffering from delayed stress disorder, postpartum psychosis, and depression

5. Mentally challenged and suffering from psychiatric illness

Variables of the study

1. Independent variable: Comprehensive childbirth preparation package.

2. Dependent variables:

a. Childbirth experiences

b. Maternal-neonatal outcomes.

3. **Extraneous variables:** It includes age, education of women, education of husband, husband's occupation, occupation of women, annual income of family, marital status, type of family, travel time to health facility, mode of transport to commute to the health facility, planned/unplanned pregnancy, number of antenatal visits, and period of gestation.

Data collection method

In-depth interview was used to collect information on childbirth preparedness and childbirth experiences were collected from primi gravidae. Participants were asked open ended questions to explore their childbirth preparedness, expectation, and experiences. Based on responses leading questions were asked. In case a gap was identified in the information, further data collection was done till data saturation was attained.

Data analysis method

Content analysis was done with the gathered information. Overall reading of the transcript, followed by line-line initial coding was done. After code generation themes and sub-themes were developed. The analysis for the data was done as per objectives of the study. Descriptive statistics i.e., frequency and percentage were used to describe childbirth planning and knowledge (childbirth preparedness). Inferential statistics was used to identify the efficacy of intervention i.e. independent's' test and Chi square was used to meet the objectives.

12. MAJOR FINDING OF THE STUDY

1. Major themes generated under childbirth preparedness were preparation related to childbirth, fear related to childbirth, awareness related to childbirth, and expectations related to childbirth. Themes merged under childbirth experiences were low self-esteem, self-blame, and unrealistic childbirth expectations.

2. Both the groups were uniform and homogenous in terms of socio demographic and pregnancy characteristics like age, education, occupation, family income, type of family, mode of transport, pregnancy planning, antenatal visits, weight of primigravidae, and period of gestation.

3. Analysis of childbirth preparedness showed that post-test scores of childbirth preparedness (34.2 ± 14.5) were significantly different at ($p = 0.03$) from the control group. This indicates that CCBPP was effective in terms of childbirth preparedness.

4. The childbirth expectation value in pre-test was not significantly different between the experimental group and the control group ($p = 0.75$), but the post-test birth expectation was significantly different between the experimental group and the control group ($p \leq 0.001$). This shows that the comprehensive birth preparation package was effective in terms of birth expectations.

5. Experimental group childbirth fear pre-test mean score was 87.1 ± 4.02. In control, the pre-test mean score of fear was 88 ± 3.47. The mean difference was 0.9. The t 98 = 1.198, $p = 0.23$ indicate a non-significant difference. In experimental group the mean post-test score of childbirth fear was 74.8 ± 10.9. In control, the post-test mean score was 87.9 ± 4.5. The mean difference was -13.1. The t98 = 7.85, $p = 0.001$ indicate a highly significance at 0.01 level.

6. The post-test score of labor and birth experience was 113.9 ± 5.7. In controls the mean score of labor and birth experience was 85.9 ± 6.5. The mean difference was 28. Here independent t-test was applied to find out statistically significant result. The t98 = 22.90, $p = 0.001$, which indicate that it was highly significant at 0.01 level.

7. Results of labor and birth experiences revealed that in experimental group 76% primigravidae had labor after 37 weeks and in control group 60% ($p = 0.007$). Majority 72% of primigravidae had normal delivery with episiotomy in experimental group comparing to 60% in control group ($p = 0.05$). Spontaneous labor occurred in 92% in experimental in comparison to 80% in control ($p = 0.005$). Experimental group had lesser

duration of 2nd stage of labor (p = 0.04), and APGAR score in experimental group is 86% and in control group (p = 0.03).

8. Postnatal outcomes of mother and baby revealed a significant difference in postnatal outcome between groups in terms of breast complications (p = 0.005) bowel problems (p = 0.003).

9. Effectiveness of comprehensive childbirth preparation package on breastfeeding self-efficacy was studied between experimental and control group. The experimental group shows that the post-test mean score of CCBPP was 60.8 ± 2.2. In control the mean score of CCBPP was 45.7 ± 20.9. The mean difference was 15.1. Here independent t- test was applied to find out statistically significant result. The t107 = 5.3, p = 0.001 which indicates high significance at 0.01 level.

13. Strengths of the study

1. The major strength of the study is the need-based intervention. The comprehensive childbirth preparation package was developed after assessing the need of the population through exploratory approach.

2. Another significant strength of the trial was quantitative approach, i.e., a randomized control trial to establish better cause-effect relation. Concealed allocation was done to allocate participants in intervention and comparison group.

3. The study was also registered in CTRI.

4. The study was conducted among under privileged population in rural areas of karnal having deprived accessibility to health services.

14. Limitations of the study

1. Present study was conducted in only one setting, i.e., Community Health Center, karnal. While generalizing the study findings, one must consider that data was collected from a single setting.

2. Due to the nature of intervention, blinding was not possible. The researcher however made sure that CCBPP was not provided in front of the comparison group.

3. Maximum data collection tools were self-reported questionnaire and researcher did not influence or interfere the samples while they were responding to the questionnaire.

4. The actual behaviors, coping and other responses of participants during labor were not observed.

15. Recommendations

1. By applying the same intervention (i.e., CCBPP), multicenter trials may be conducted.

2. Replication of the study by single or double blinding can be done to check the effectiveness of the intervention.

3. The present study was conducted in a community health center. Similar studies can be conducted in government or private hospitals.

4. A comparison study may be administered to identify the efficacy of CCBPP among primiparous and multiparous women.

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