

CHILDBIRTH PREPARATION: CONCEPT ARTICLE

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Abstract: Childbirth preparation programs are significant tool to improve maternal and child health. Today, no one knows the most effective educational approach. The objective of this article is to discuss various methods of childbirth preparation and the impact of childbirth preparation on antenatal mothers.

Keyword- Childbirth preparation, childbirth education, parenthood education, Centering pregnancy, pregnancy, prenatal care, childbirth education methods.

Introduction- Path towards pregnancy are many but not always happy¹. The decision to accept pregnancy is not always easy. Pregnancy produces a feeling of ambivalence of whether I want it or not². Such ambivalent feelings raises doubt in parents that whether it is the right time, whether they have necessary resources to raise the child or whether they are ready to play the role of mother of father^(3,4). Once the future parents makes the decision to continue with the pregnancy, it is important to prepare them by educating about gestational care, childbirth, postnatal and new born care. During the phase of preparation, the new mothers are prepared for pregnancy, labour process and for the new role of “motherhood”.

Science and various research studies have proved that child health starts in the antenatal stage and this makes childbirth preparation very significant. Everything, right from mothers’ diet, emotions and health influence the health of her child^(5,6). So, World Health Organisation and other related scientific societies promote childbirth preparation at this stage.

Trends in Childbirth Education:

1.1 The beginning- By the end of 20th century many great changes took place in health care industry that gave a new perspective to hospitals. Over time the hospitals developed, technified and became the great centres of training and development of medicines. During this time, the first maternity centres arose to serve the most disadvantaged women. The delivery assistance

moves from homes to hospitals ⁷. Women no longer had the opportunity to see their relatives give birth and lost ancestral control over their physiology and their natural knowledge of childbirth. In hospitals, in order to improve perinatal outcomes, deliveries were medicalised and instrumentalized. These medical interventions lead to anxiety and pain for women in childbirth, so the need arose to find the ways to reduce pain and anxiety ⁸. In 1870, Young Simpson applied chloromorphic anaesthesia to childbirth. At the beginning of the century, studies were developed through out Europe to achieve analgesia in childbirth with psychological means ^{7,9,10}. Obstetrician start prenatal education program for childbirth. There early programs are the forerunners of the current Maternity/Paternity Education Programs.

1.2 Models of Prenatal Education- The first half of childbirth education emerge in the first half of the century in Europe. The objective was to reduce the pain of women during childbirth and it consisted of few sessions. Slowly, the program expanded in their objectives, sessions and focussed on pregnancy, bonding, couple and new-born.

1.3 Hypnosis and Childbirth Preparation-The clinical hypnosis was investigated by Charcot and Berhein^{11,12,13}. Schultze and Rhonhof in 1922 proved that by introducing educational sessions before childbirth the time needed to achieve hypnotic state was reduced. Kogerer in 1923, used post hypnotic self- suggestions ^{14,15,16}

1.4 Dick Read Model- Grantly Dick Read, the obstetrician in 1932, published “Natural Childbirth”. According to him, birthing is a natural phenomenon in which pain is created by fear which causes muscular tension. Read formulated, Fear-Tension-Pain concept and developed session based on explanation, conversations, relaxation breathing techniques that enhance trust in health care team. This concept disseminated worldwide and underwent many changes. ^{17,18}

1.5 Velvoski, Platinov&Nikolaiev Model- Velvoski, Platinov&Nikolaiev were working with hypnotic suggestion and were also looking for new obstetric psychoprophylaxis approaches.¹⁹ According to them, pain in labour is a reaction conditioned by sociological and religious-cultural stimuli based on Pavlov’s classical conditioning theory. As per this model, deconditioning of fear can be done through relaxation, language, positive thinking and by childbirth education ^{20,21}. To actively involve women, breathing and muscle exercises were introduced. This model spread through Russia, china and Eastern Europe.

1.6 Lamaze Model- In 1940, Dr. Lamaze created a technical method that focussed on the requirement for a caring and loving environment with presence of companion. This model also insisted on power on power of verbal persuasion and active role of woman²². Laboyer in 1975, in his book “Birth without Violence” explained the creation of an environment of tranquillity in the labour room and the submersion of new-borns in a bath of warm water, so he is called as the precursor of water birth ²³.

1.7 Midwife Consuelo Ruiz Model- “Labour without pain” in 1955 was written by midwife Consuelo Ruiz ²⁴. School of “Obstetric Sophropedagogy” or “Maternal Education” was founded in 1956, which helped to change the focus from pain during labour to achieving a new socio-cultural standard, under which both the woman and her partner acquire knowledge to face labour

with peace, decreased fears and having positive experience and satisfaction towards childbirth^{25,26}. In 1986, Maternal Education was included in U.S National Health System.²⁷

2. Current Childbirth preparation Models- In the middle of 20th century, these methods obtained good perinatal results and spread throughout the world.²⁸

2.1 International Childbirth Educator's Association- It is a non- profit organization founded in 1960 and further evolved the Lamaze Method. This association promotes freedom of choice for women and their partner by rendering childbirth knowledge and options. The major objective of this association is maternity and new-born care. It respects maternal autonomy and individuality.^{29,30,31}

2.2 Husband Coached Childbirth- Robert Bradley in 1965, wrote in his book “Husband-Coached Childbirth” which focuses on birth companion. According to Bradley the birth companion must ensure that the parturient is in safe and quiet environment and should be able to help her in birth process. Bradley called husband or partner as “Coach” who will give instructions, relaxation and massages to women³². Bradley was the pioneer of “Father Training”.

2.3 Mindfulness based childbirth & Parenting- Kabat- Zinn in 1970, in university of Massachusetts Medical School developed Mindfulness Based Stress Reduction. This method insisted on development of conscience through meditation. This model help to reduce pregnancy related depression and anxiety^{33,34}. This model was also the base for arising of new model “Centering Pregnancy”.

2.4 Birth your Way- Sheila Kitzinger, in 1970's reinstated the importance of women wisdom in childbirth. Kitzinger, the author of “Birth Your Way: Choosing Birth at Home or in a Birth Centre” explains that women into their contractions in the way they feel they achieve harmony and rhythm and acquire the knowledge to make their own decisions. The presence of midwife, instructors and husband create a favourable environment for childbirth. Janet, assistant of Kitzinger created the Active Birth movement and proposed the use of yoga for positive childbirth³⁵.

2.5 Haptonomy- In the 70's, a new approach of childbirth preparation developed in Netherlands: “Haptonomy”, which extended to France, Switzerland and Spain. Dr. Etienne Herbinet, explains that Haptonomy works on touch, palpation and tactile contact as a means to communicate. This approach prepared the future parents to develop emotional bond with the baby.^{36,37}

2.6 Respiratory Autogenic Training (R.A.T)- Umberto Piscicelli in 1984, published his book “Respiratory Autogenic Training and Psychoprophylaxis in Obstetrics”. His work was inspired by Schultz's autogenic breathing, the laws of conditioning, psychotherapy, relaxation therapy. The women is given full autonomy for her birth decisions and is prepared to act in an environment full of stimuli. This approach also focus on correction of negative psychic aspects and non- adaptive behaviour.^{38,39}

2.7 Hypnobirthing- Marie Mickey in 1990, developed the Morgan Method, famously known as Hypnobirthing. This approach believes that all women within them have the power or natural

instincts to achieve a natural childbirth. This method also work on mother's childbirth expectations and to achieve positive childbirth experience. It emphasized on breathing, relaxation, visualization, self-hypnosis and language. This approach also highlighted the fact that childbirth does not have to be painful^{40,41}

2.8 Intra Uterine Harmonization- Dr. Thomas Verny and Pamele Weinhaub in 1992, developed a new childbirth preparation program which works on music, deep relaxation, massage and visualization to prepare prospective parents. The various novel strategies they used under this program to prepare couples were guided imaginary, drawing, lullabies and names by which they will be addressing their babies. They believed that positive thinking techniques is an important component of childbirth preparation⁴²

2.9 Birthing from Within- Pam England & Rob Horowitz in 1998, developed a holistic approach to childbirth preparation and postnatal care known as "Birthing from Within". Birthing from within, addressed on introspection and self-discovery from the woman's point of view and own internal experience⁴³

2.10 Awareness of Welcome- Dr. Wendy Anne McCarty in 2004, reviewed 30 year of clinical research in the field of childbirth preparation. Her book "Awareness of Welcome" presents an integrated model of early development that was a reflection of the clinical results. It is an integrating model of early human experience, learning, development and care. In this model the authors affirms that the most important thing is to reconstruct our sensitive spiritual nature as well as our fundamental nature of sensitive human being.⁴⁴

Impact of childbirth preparation:

Pregnancy is often an exciting and joyful time, but sometime this excitement can bring anxiety about carrying and giving birth to a child, especially for the new moms. However, with proper guidance, education and support, those anxieties can be relieved. Beneficial impact of childbirth preparation program is: -

a. Childbirth experience- Childbirth education or preparation programme are found to be effective in improving the mother's knowledge, outcome and experience with childbirth.^{45,46}

Deepthy et al conducted a quasi-experimental study to assess the effectiveness of childbirth education on childbirth experiences of primigravid women. The study findings revealed the mean childbirth experience score of the experimental group receiving childbirth education programme was (38±11.8) was significantly lower than the control group (65.25±18.85) at $p < 0.001$. The study concluded that childbirth experience of the women can be improved with childbirth education.⁴⁷

b. Childbirth Self- Efficacy- Childbirth education has been shown to reduce fear and anxiety while increasing birthing confidence or Self- efficacy in expectant mothers. Munkhondya BM (2020) conducted a quasi-experimental study to assess the efficacy of companion-integrated childbirth preparation for childbirth fear, self-efficacy, and maternal support in primigravid. They enrolled the 70 pregnant mothers in experimental and control group. The primigravid women and their birth companions in the intervention group received twosessions of companion-integrated childbirth preparation, whereas the control group received routine care. At pre-test,

mean scores were similar in the intervention and control groups. At post-test, being in the intervention group significantly decreased childbirth fears ($\beta: = - .866$, $t(68) = - 14.27$, $p < .001$) and significantly increased childbirth self-efficacy ($\beta: = .903$, $t(68) = 17.30$, ($p < .001$)⁴⁸

c. Knowledge of Childbirth Process- Childbirth preparation classes also include contents like physiological changes of pregnancy, nutrition during pregnancy, prenatal care that is something more than labor and birth. Childbirth preparation program actually prepares for safe and smooth delivery. Childbirth preparation program helps mothers to learn how to take care of themselves and their new born in a multitude of ways. In a study published by the American Journal of Obstetrics and Gynaecology (AJOG) participating in childbirth classes can reduce the rates of adverse delivery outcomes like failed induction and caesarean sections. It is concluded in study that this is due to the increased knowledge and skills in women who take childbirth classes.

d. Maternal birth Outcomes- A lot of anxiety and fear surrounding pregnancy and childbirth comes from not knowing what to expect once the labour begins. Many studies have reported that women attending childbirth preparation program had lower pain level and better labour outcome. A clinical trial conducted in Iran among 57 women who were offered childbirth preparation class during pregnancy and a normal physiologic childbirth program during labour while the control group received conventional care. The study outcome was the measure of labour pain between both the groups. The results revealed that the mean of labour pain in the intervention group was significantly lower than the control group ($p < 0.001$). The study concludes that complete implementation of the normal physiologic childbirth program can reduce the severity of labour pain.⁴⁹ Gluck Ohad et al conducted retrospective study and reviewed the medical records of nulliparous women who participated in childbirth preparation class during their pregnancy and delivered between January 2014 to December 2017. The control group comprised of nulliparous women who delivered in the same time period but did not participate in education class. The study findings showed that the group of women who received childbirth preparation programme during their pregnancy had higher rate of normal vaginal deliveries and lower rate of vacuum extraction as compared to group of women who did not receive childbirth preparation.⁵⁰

e. Neonatal Outcomes- The impact of childbirth education can be seen on various neonatal outcome like birth weight, APGAR score, breast feeding and decrease rate of prematurity. Madhavanprabhakaran et al conducted a randomized controlled trial with the objective to evaluate the effectiveness of childbirth educational intervention on nulliparous women's knowledge on childbirth preparation, pregnancy anxiety and pregnancy outcomes. The experimental group received childbirth education in 3 sessions. The findings of the study revealed that the experimental group demonstrated a significantly higher level of knowledge on childbirth preparation ($p < 0.001$) and lower score of pregnancy. Specific anxiety compared to control group. Significant reductions in rate of caesarean section and 12% increase in newborn's birth weight were main positive birth outcomes. The study concluded that the emerging trend of caesarean section on maternal request due to childbirth anxiety could be reduced by empowering primigravida mothers through childbirth education.⁵¹

f. Improved postpartum and new born care- Some international studies have demonstrated that the participation in childbirth preparation classes can be associated with reduce labour pain, increased vaginal deliveries, reduce anxiety, fear, increased breast-feeding efficacy and improve

women relationship with health care professionals. A true experimental study conducted by Jayasankari et al to assess effectiveness of childbirth education intervention increased the knowledge level of the antenatal mothers which is highly correlated with the increase in the coping level of the parturient, decrease in the duration of labour, an uneventful intrapartum period, a positive childbirth experience and an increase in maternal and infant bonding during postnatal period.⁵²

g. Coordination with care team- By providing a trip to labour room, teaching about various birthing positions a realistic expectation is developed among women which helps the pregnant women to develop better coordination and understanding with health care professionals.⁵³

The need for these classes is more in these times. Not every man and woman has seen small babies at home. They lead busy lives, live in nuclear setups where families are small and precious. True, our parents, grandparents and great-grandparents delivered child after child, and never was there any need for classes. However, it is important to remember that family support in earlier times was much more than it is today. There were many experienced women by our parents' and grandparents' side to guide them every step of the way. Such help is not always an option nowadays, with everyone leading busy lives. It is thus important that pregnant women look out for themselves.

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Pregnancy and childbirth are very special time in the life of every women. The nine months of pregnancy and the hours of labour or delivery are event of physical and psychological changes. Every change brings challenges that can be successfully overcome, if the women and their partner is prepared for the pregnancy and childbirth by her midwife or childbirth educator. The importance of childbirth preparation or education during pregnancy is emphasized for positive childbirth expectations, experience, better maternal-neonatal outcome and to achieve childbirth satisfaction.⁵³

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