

CHAPTER 2

REVIEW OF LITERATURE

Literature adds reality; it not only simplifies, but also explains. Literature reviews are very influential and important tool for researchers as it enriches the outcomes of daily life and forms the basis. The literature acts as a compass for researchers to find the right direction in the sea of information. This links current research results with important previous research results and encourages researchers to look for solutions to a given problem. The research scholar has made an attempt to review, assemble, and discuss the review of literature and its findings related to current study under the following headings:

1. Childbirth preparedness
2. Childbirth expectation
3. Fear related to childbirth
4. Childbirth self-efficacy
5. Childbirth experiences
6. Benefits of CCBPP on childbirth experiences and maternal neonatal outcomes

Childbirth preparedness

Childbirth preparedness includes various tools that help parents to prepare themselves for childbirth from the beginning of pregnancy. This preparation occurs usually in the

form of lectures to provide information on fetal development, health examinations, psychological aspects of pregnancy, and breastfeeding. A professional trainer or midwife will show the posture and movement of the pregnant woman to make the muscle structure more elastic to promote childbirth. It also uses breathing and relaxation techniques to increase self-control during labor. Unfortunately, such kinds of preparation programs are not available or accessible for all pregnant women.

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.⁶⁶

Gurung 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.

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.⁶⁷

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)].⁶⁸

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 childbirth information and reassurance to the

mother to improve maternal and fetal outcome.⁶⁹

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.⁷¹

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

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.⁷²

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% women 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.⁷⁵

Childbirth expectations

Birth expectations is a trust or belief of pregnant mother that her and her newborn's needs will be met during birthing. These needs can be physical, psychological, social, self-efficacy, safety, and medical. Both parents may have expectations related to birthing which is necessary to be identified in order to have better experience of

birthing.

Descriptive survey was organized to identify birth expectations of expectant Chinese parent. Childbirth expectations questionnaire was used among 240 expectant parents in a child health-care center in Beijing. Data was collected through a demographic questionnaire and the Chinese version of childbirth expectation questionnaire. The average expectation mean was 4.14 (SD = 0.33) for pregnant women and 4.15 (SD = 0.30) for the fathers. Parents' expectations for childbirth were high in terms of caregiver environment, spouse support, participation and management, and medical support. Parents' expectations for labor and pain coping were low (M1 = 2.34, SD1 = 0.67; M2 = 2.46, SD2 = 0.65). The study further added that health-care professionals must provide close attention to childbirth expectation in order to promote positive childbirth experiences and enhance childbirth satisfaction.⁷⁶

Qualitative study with the aim to explore childbirth expectation was conducted among Spanish pregnant women of Alzira, Valencia. Data was collected on an open-ended question about childbirth expectation and was analyzed using content analysis. The main expectations from the sample of 213 pregnant women were fast delivery, good outcome labor, and painless labor with quality medical support. Normal vaginal delivery expectations accounted for 5.2% of the total responses. The study concluded that knowledge related to childbirth expectation is relevant as pregnant women measure their childbirth satisfaction based on the expectation fulfillment. By childbirth education and preparation, a midwife may help mother to develop realistic childbirth expectations.⁷⁷

In another qualitative study conducted to explore experiences, expectations and need

of pregnant women about antenatal education, 22 pregnant mothers were purposively selected from antenatal clinic of Brazil. Interviews were recorded, transcribed, and thematically analyzed. The finding of the study reported that majority of the participants wanted to get advice on non-pharmacological methods for controlling labor pain. Performance of physical exercises and low encouragement from Health Care Practitioners were explored as barriers among women. Women also commented that the source of antenatal education for them is other pregnant women, media, and old age women. Participants reported lack of guidance from Health-Care Practitioners during ANC visits. The study concludes that the primigravida would participate in childbirth education classes if they receive education on non-pharmacological methods to use during childbirth.⁷⁸

The relationship between childbirth expectation and childbirth experience is not very well understood. An observational study by Aksoy et al. to estimate the relationship between pain expectation before labor during labor and after labor. Level of pain on visual analogue scale was reported by women on different points of time. The mean score for pain expectation was 70.11 ± 18.82 , for labor pain 75.72 ± 19.2 , and for postpartum pain it was 65.84 ± 19.56 , respectively. The study revealed a positive correlation linking pain expectancy, labor pain, and postnatal pain. The correlation was statistically significant ($p = 0.27$ and $p = 0.21$). Studies conclude that pregnant women actually feel pain when they have low expectations of pain. There is less pain during labor. The study also recommended that rational approaches to reducing the experience of pain during labor should be aimed at reducing pain expectations before developing new experiences.⁷⁹

Birth expectations and birth experiences may vary between primigravida mothers and multigravida mothers. There are several factors influencing positive birth experiences among primigravida. Nilsson et al. studied the birth experiences among primigravidae. Qualitative research design with content analysis was used. Written narratives were collected from 14 primigravid mothers. Theme generated was “to be empowered increases first-time mothers’ chances for a positive birth experience.” The three categories formed were: “to trust the body and to face the pain,” “interaction between body and mind in giving birth,” and “consistency of support.” The study concluded that if professionals respond to the primigravid mother’s need of support, and if the mother is empowered by childbirth information, the woman may have a favorable birth experience.⁸⁰

Expectation and experiences are closely related to one another. Extensive literature review shows several evidences that during pregnancy women form beliefs regarding what should be expected during childbirth; and, the expectations of women formed before childbirth are influenced by many factors. A cross-sectional study conducted to study the association between childbirth self-efficacy and expectations using the consecutive sampling method. The means used to collect the data were a birth prediction questionnaire, a marriage adjustment test, and a London measurement of unplanned pregnancies. Correlation was identified using chi-square test. Most of the mothers (63.7%) showed low childbirth self-efficacy. A significant correlation ($p = 0.003$, OR 2.8, 95% CI: 1.126–8.544) was found between childbirth efficacy and expectation. The study concluded that enhancing childbirth self-confidence is significantly related to childbirth expectation.⁸¹

There is a gap between what women expect to receive during their childbirth and what type of care they receive from their care giver and health-care provider. A qualitative study was conducted to explore the expectations of women during labor and delivery. Analysis was done through content analysis. Women's needs and expectations were physiological, social, relational, psychological, informational, security, and medical needs. All the needs were grouped under one theme "sense of control and empowerment in childbirth". Study recommended that exploring women's expectations will help in providing quality care to women, and hence improve childbirth experience.⁸²

Qualitative study conducted among twenty-two antenatal women to explore preferences and expectations of married women. The study identified that women's expectation was different based on her knowledge, culture, and experiences. Women highlighted their main expectation "being supported" and receiving continuing care." Women's expectation were need of support and receiving quality health care.⁸³

Fear related to childbirth

Most of the women are very anxious and afraid of going through the childbirth process. Its might be quite difficult for others to understand but the severe fear of childbirth among women is called "tokophobia." Childbirth fear increases rate of caesarean section and can also cause post-traumatic stress disorder.⁸⁴

In the similar context, a cross-sectional research study by Shakarami et al. among 100 primigravidae and 100 multigravida women admitted to maternity hospitals of Ahvaz,

Iran, to compare childbirth fear and self-confidence among first-time mothers and multiparous. Data collection was done by using instruments like demographic questionnaire, Spielberg's State Trait Anxiety Inventory (STAI), delivery fear scale (DFS), and childbirth self-efficacy inventory (CBSEI). The results revealed that overall DFS score in primiparous was 69.3 ± 8.5 and multiparous was 207.3 ± 43.9 . Childbirth self-efficacy in primiparous women was 207.3 ± 43.9 and in multiparous women it was 222.4 ± 39 . The study concludes that the childbirth fear and childbirth-confidence are comparatively lower in the primiparous. Health-care providers must adapt appropriate interventions to decrease childbirth fear and increase childbirth confidence in primiwomen.⁸⁵

A study published by Miller & Danoy-Monet in BMC Pregnancy & Childbirth; "Reproducing fear: the effect of birth stories on nulligravid women's birth preferences" with the aim of assessing the effects of exposure to different birth stories on the birth preferences of non-pregnant women and the factors that mediate them. Stories were differentiated on the basis of evaluation of story teller and type of birth, fear of childbirth, self-efficacy of vaginal birth and childbirth preference was measured before and after exposure to bidirectional analysis between groups. The results showed that differences in birth modes and storyteller ratings had a significant effect on birth choices ($F(1,421) = 44.78, p < 0.001$). The effects of the vaginal birth story were significantly mediated by labor pain, vaginal birth, and fear of self-efficacy. Study concludes that childbirth preferences in nulligravid women can be significantly influenced by vicarious experiences. Research results emphasize the importance of monitoring bias in the subrogation experience and may inspire new strategies to promote healthy childbirth.⁸⁶

There is an increased demand to promote such research in a country, like India, having high birth rates. Dai et al. conducted a bibliometric analysis on “Worldwide research on fear of childbirth”. The purpose of bibliometric analysis was to review studies on fear of childbirth (FOC), analyze and evaluate publications, and provide suggestions and possibilities for future studies. All the articles focusing on FOC from starting point to February 2020 were selected from the sources like Web of Science, PubMed, Embase, and Cochrane library database. There were 743 articles included in the final analysis. The analysis showed that 743 articles were cited about 31,515 times, having h-index: 98. The publication of most prolific author Hildingson whose publications are 35 and the words used in her articles frequently were, “caesarean section,” “experiences,” and “factor” The study concluded that interest in research on childbirth fears has increased over the last two decades. Her work recommends more funding for research projects in the area of childbirth anxiety.⁸⁷

Perhaps pregnancy is a joyful event of life for women; in contrast to that, about 20% of women in developed countries reported fear of childbirth, which could result in poor maternal neonatal outcomes. In a developing country like India, a cross-sectional study conducted in rural Karnataka among pregnant women using prenatal services. To determine the fear of childbirth validated questionnaire were used. About 388 women participated in the study out of which 176(45.4%) women reported childbirth fear. Mean childbirth fear score was 4.54 ± 1.91 . The common factors associated with FOC were childbirth process, birth pains, and caesarean section. Other factors associated with fear of childbirth were being primigravida and having no live child. This study recommended to identify the different fears of childbirth among women, on the basis of which need-based intervention must be developed to provide assistance

and information to pregnant women about childbirth.⁸⁸

A survey was conducted to identify occurrence of childbirth fear and its association with depressed mood among primigravidae in tertiary referral centers of Kerala. Data was collected using Edinburgh Postnatal Depression Scale. About 17.7% women had fear of childbirth. The prevalence of depressed mood measured with an EDD score of >12 was 9.8%, and the occurrence of depression was 8.7%. Study concluded that the mood of depression and the number of first-time birth women suffering from clinical depression are worried about childbirth.⁸⁹

Researches that support prevalence of childbirth fear among primigravidae have also suggested that childbirth fear is associated with significant levels of prenatal anxiety, and in most of the women, their prenatal anxiety goes unobserved. Similar studies were also conducted in Iran to find factors associated to fear of childbirth. The study was done among 335 antenatal mothers in a selected maternity center in Hamadan, Iran. About 89.3% of mothers reported fear of childbirth. The study findings revealed significant difference among women's childbirth fear and income, education level, gravidity, and familiarity with labor phases ($p \leq 0.05$).⁹⁰

Descriptive survey organized among primigravidae in five maternity homes in El-Kobra city, Egypt with the main objective to identify predictors of childbirth fear and its relation with women's choice for elective caesarean section. Findings of the study showed that 47.8% women preferred caesarean section and major reasons for opting caesarean section were considering caesarean section as a safer mode of delivery, fear of vaginal birth, and pain associated with delivery. Fear of pain, lacerations, and episiotomy were the highest factors associated with fear of childbirth and opting for a

caesarean delivery.¹³

Childbirth self-efficacy

Descriptive correlational study with the objective to explore the association between childbirth self-efficacy, anxiety, and childbirth experience was conducted among 85 pregnant women between 36–40 weeks of pregnancy. The tools for data collection were childbirth self-efficacy inventory, state trait anxiety inventory, and perceived childbirth experience scale. The findings revealed that mean score of anxiety was 41.34, childbirth experience was 4.09, and childbirth self-efficacy was 232.59. Anxiety was negatively statistically significant with self-efficacy of pregnant women ($r = -0.42$, $p \leq 0.01$), childbirth experience was positively statistically significant with childbirth self-efficacy ($r = 0.50$, $p \leq 0.01$). The study concluded that effective nursing intervention must be planned to promote childbirth self-efficacy.⁹¹

The relationship between birth self-efficacy and well-being, childbirth intervention, and childbirth outcomes were assessed by a cross-sectional study. Data were collected using the Birth Self-Efficacy Inventory, Birth Expectations/Experiences by Wijma Surveys, SOC surveys, maternity social support scales, mood profiles, and prenatal birth records. Samples of 406 pregnant women from 35 to 42 weeks of gestation were recruited. The study results show that birth self-confidence is positively linked with positive aspects such as consistency, strength, and maternal support, and negatively with a history of mental illness, fear of childbirth, and negative mood. The study also suggested that women with high self-confidence at birth had a lower rate of epidural analgesia. Studies conclude that self-efficacy in childbirth contributes to well-being during pregnancy and serves as a positive aspect.⁹²

Systematic analysis integrated with quantitative review to measure self-efficacy in childbirth and its effect on labor outcomes. Studies were identified through various search engine databases. Data were synthesized from 619 publications, of which 23 published studies met the criteria between 1983 and 2015. The results of the study suggest that increased self-confidence at birth is linked with improved labor outcomes. In addition, evidence suggests that self-confidence at birth is a psycho-social predictor that can be enhanced by a variety of efficacy-enhancing interventions.⁹³

Multiple factors had been identified to be associated with childbirth self-efficacy. A multicenter cross-sectional study conducted in China among pregnant women with singleton pregnancy. To identify obstetric factors influencing self-efficacy multivariate linear regression was used. About 1,796 pregnant women were recruited, average childbirth self-efficacy was 14.2 ± 2.80 . Analysis showed self-efficacy scores ($\beta = 0.05, 0.06, 0.47, 0.47$) were significant at $p \leq 0.5$ in terms of young age, BMI, birth education, and performing exercise, respectively. Study recommended that interventions focusing on improvement of birth self-efficacy should be developed for primiparous, elderly and obese gravida.⁹⁴

Childbirth experiences

First birth experience of women depends on several factors. This section of the review deals with extensive literature search regarding factors influencing childbirth experience. Hildingsson et al. conducted an experimental cohort study. During the selected period, the participating women received ongoing midwifery care during pregnancy and childbirth. The Childbirth Experience Questionnaire (CEQ) was used to identify childbirth experiences during the second trimester and 2 months after

childbirth. The results suggest that factors, such as fear of childbirth and preference for childbirth other than vaginal childbirth, are associated with less positive childbirth experiences. Epidural, augmented, and vaginal births without birth complications were all associated with a better birth experience. Women who knew midwives had a positive experience of professional support. The study concludes by emphasizing the importance of well-known midwifery care and non-medicalized childbirth for a positive childbirth experience.⁹⁵

Qualitative study conducted to examine importance of the optimistic childbirth experience reported by mothers who gave birth in hospitals of Iran. Data were collected using a semi-structured interview with ten women between 72 hours and 2 months after delivery. Data analysis was done by content analysis. Derived themes are empowerment and self-control, sub-themes are preparation for birth, coping and support, self-confidence, and self-esteem. The study concluded that optimistic childbirth experiences have a pivot significance in women's decision-making and decline. Factors of caesarean section play an important role in the childbirth experience and need to be considered by the health-care system in pregnancy and childbirth strategies and policies.⁹⁶

A systematic review and meta-analysis investigated and examined the risks and predictors of a woman's subjective birth experience and childbirth satisfaction. Literature search was performed on three online databases and search engines. Risk factors were women's dissatisfaction with obstetrics, such as emergency caesarean section, perception of pain during labor, and social support. A woman's subjective predictor of childbirth experience was satisfaction with high levels of perceived control

or partner support during labor.⁹⁷

Rodriguez-Armagro et al. conducted a qualitative study investigating mother's opinion of experiencing distressing childbirth and related factors. Data were collected from semi-structured interviews with 32 participants. The survey revealed five major themes: "observance of childbirth plans," "obstetric problems," "mother-child ties," "emotional wounds," and "perinatal experience." Anxiety, loneliness, traumatic stress, and depression were emerged themes in the mothers' reactions. Research results strongly recommend the need for appropriate policies, preparations, procedures, training, and support, to minimize the adverse effects of childbirth.⁹⁸

A cross-sectional survey was conducted by Jha et al. on primiparas who gave birth to live children by vaginal or caesarean section at seventeen PHCs in two districts of Chhattisgarh. A continuous sampling method was used and a one-to-one interview was conducted using the Wijma Delivery Experience Questionnaire Version B and the Edinburgh Postnatal Depression Scale. The result is Wijma B had reliable psychometric properties. The prevalence of childbirth anxiety and depressive symptoms in primiparas was 13.1% and 17.1%, and their presence was strongly associated ($p < 0.001$). The results also showed that postnatal depressive symptoms were associated with fear of childbirth, and the birth of a baby with low birth weight. The study concluded that the prevalence of childbirth anxiety and symptoms related to depression are influenced by techniques of managing pain during labor and care received by women from care givers.⁹⁹

Oweis & Abushaikha, conducted a descriptive study using appropriate samples of 77 first-time pregnant women. The tool used to collect the data was an expectation

questionnaire and childbirth experience questionnaire. The results of the study showed that primigravidae anticipated negative birth occurrence. The results showed that women expect the entire childbirth experience to be terrifying, too lengthy, difficult, and very painful. The reasons for expecting a terrible childbirth experience were limited preparation for childbirth and the advice given to women. This study recommended that health-care providers should accentuate the importance of childbirth preparation to change a woman's negative childbirth expectations and experiences.¹⁰⁰

Hauck et al. conducted an exploratory descriptive design by conducting qualitative studies to investigate and explain the impact of childbirth expectations on women's impression of childbirth experience and expectations. The study was conducted in Perth, Western Australia, on 20 participants, comprising 11 primiparas and 9 multiparous women. The results show that women have multiple expectations for childbirth and that certain expectations were considered to be prioritized. To recognize childbirth as positive, the woman had to meet her key expectations. Uncertain childbirth experiences due to disappointment were more common after the first childbirth. The supportive attitudes of midwives and health-care workers helped women consider the childbirth experience positive, even if it did not live up to their expectations.¹⁰¹

Mackey conducted qualitative field study among 60 Lamaze prepared multigravida. Study objective was to identify women perception about their delivery, and to explore related factors. Data collection was done by open-ended tape-recorded interviews in community hospital or women's homes early during the postpartum period. Evaluation of women delivery and labor experience was done by how well they perceived they had

managed their own performance during childbirth. Findings revealed that women who managed well, viewed childbirth as positive, and thought that they did well in their own performance during labor. The women who had difficulty in childbirth, believed they managed poorly, and had problems identifying anything that went well. Majority of the women believed that best part of childbirth experience was the baby, and the worst part was pain and pushing. Study concluded that the evaluation of women labor experience may be related to quality of future motherhood. It is important to improve mothers' perception of their childbirth performance and assessment of their childbirth experience.¹⁰²

A single blinded randomized controlled study design was conducted among 296 primiparous Taiwanese women in 32 weeks of gestation. The women filled out personal information and a birth request questionnaire at the time of recruitment. On the day of delivery, participants answered the questionnaire CBEQ, and birth expectation questionnaire, etc. Result revealed that intervention group had higher level of positive childbirth experience than the comparison group ($t = 2.48, p = 0.01$). The intervention group also had higher degree of self-control during labor ($t = 9.60, p < 0.001$). The intervention group mothers showed higher proficiency and participation ($t = 3.74, p < 0.001$) than the comparison group. The study concludes that providing a birth plan in a health-care facility is an important way to meet women's childbirth expectations, have better control of the childbirth process, and improve the overall positive experience.¹⁰³

A study was done to examine distressing birth experiences and explore predictors in primiparas at 64 health centers. Around 800 eligible postpartum women were recruited

by cluster sampling. Women's childbirth experience was measured by a childbirth experience questionnaire. The study results showed that the prevalence group with traumatic childbirth experience was 37%. Predictors of distressing childbirth experience were associated with prenatal and postnatal factors. Prenatal predictors were lack of physical activity during pregnancy Predictors during delivery were lack of pain relief during delivery and childbirth, and fear of childbirth. ¹⁰⁴

Benefits of childbirth preparation program on childbirth experiences and maternal-neonatal outcome

Several studies have showed the benefits of various interventions on childbirth experience. One of the similar literature searches was performed on several data bases. The purpose of systematic review was to examine the benefits of hypnosis-based interventions during pregnancy and childbirth on childbirth experience. The articles were assessed with the mixed methods appraisal tool (MMAT). The main findings of the review showed that hypnosis-based interventions have a better impact on childbirth experience by reducing anxiety and pain, and increasing self-control during labor. The review found that hypnosis-led intervention improved psychological experience and childbirth prospects by reducing anxiety, increasing satisfaction, reducing childbirth interventions, increasing postnatal well-being, and improving the overall childbirth experience. The results highlighted that hypnosis-related interventions improve the birth experience. This study recommends that further interventions should be developed to improve the childbirth experience. ¹⁰⁵

One of the major concerns for mental health during pregnancy is childbirth fear. Systematic review and meta-analysis were done to explore intervention on reducing

fear of childbirth were searched in PubMed, PsycINFO, Embase, and Cochrane central register of controlled trials. Randomized control trials were included. Two quasi and eight randomized control trials were included in the search studying hypnosis-based and educational-based intervention respectively. The pooled standardized mean difference in anxiety between the educational intervention and hypnosis groups compared to the other group was -0.46 (95% CI: -0.73 to -0.19) and -0.22 (95% CI: -0.34 to -0.10). The systematic review concluded that educational interventions can reduce anxiety twice as effectively as hypnotic interventions.¹⁰⁶

Childbirth education programs are modified as mental preparation before delivery with aim to reduced fear and anxiety associated with labor. One of the programs named mind fullness-based childbirth education (MBCE) was developed and effectiveness of the program was calculated. MBCE program aims to decrease fear, anxiety, stress of childbirth, and also enhance childbirth self-efficacy of mothers. A randomized single arm trial pilot study was conducted among women who were in 18–28 weeks of pregnancy. Eighteen pregnant women along with their care givers attended MBCE group sessions for 8 weeks in selected Australian community health centers. Findings of the pilot study showed statistically significant enhancement and large effect size was seen in childbirth self-efficacy and fear of childbirth. Postnatal follow-up also showed significant improvement in stress, fear, and mindfulness. Previous evidences suggest that low childbirth efficacy and increased fear of childbirth are related to severe labor pain, and distressing delivery. Studies have also revealed that significant improvement in these variables improves maternal mental health and also neonatal outcomes.¹⁰⁷

Education on childbirth have proved to be effective in improving knowledge and self-

efficacy that help women to adapt to changes of pregnancy, improve her self-efficacy, cope with pain and to have a positive experience of childbirth. Jaishankari et al. conducted true experimental study with post-test control groups design among 250 pregnant women between 32 and 34 weeks of gestation. Participants in treatment group were provided video assisted childbirth education and control groups received routine care. The results showed a significant improvement in mothers knowledge score ($t = 70.634$, $p < 0.000$) and significant difference in anxiety ($Z = 13.65$, $p = 0.05$), coping level ($t = 41.75$, $p = 0.00$), and delivery period ($F = 3956.05$, $p = 0.00$) between both groups. The study also showed that 94.2% mothers had vaginal deliveries. The study concludes that video-assisted childbirth program has improved knowledge levels, coping of pain, positive childbirth experience, and increased maternal neonatal bond.¹⁰⁸

Childbirth preparation program was found to be effective on maternal and neonatal outcomes also. Exploratory descriptive design and hands-on study engagement were used to examine the feasibility of implementing a maternity training program at a Maternal and Child Health Center among the 107 primiparas recruited by convenience sampling. The efficacy of the training was observed through pregnancy outcomes of mothers and satisfaction of health care givers and mothers. The program was found to be effective in enhancing knowledge of mothers and also helped to foster rapport of trust between health-care providers and mothers and improved mother's self-control during delivery, breastfeeding periods, and family knowledge. The study concluded that the implementation of antenatal programs in developing countries seems to be successful and effective.¹⁰⁹

Similar studies have also supported the effect of childbirth preparation intervention on

reduction of medical interventions. A prospective quasi-experimental study was performed on 60 registered primigravidae. The primigravidae were divided into a treatment group and comparison group. The treatment group was provided childbirth training and the control group received routine care. The effectiveness of CBE was measured by self-developed traditional pregnancy training. Research results suggest that primigravidae were not well informed about childbirth preparation. In the experimental group, the episiotomy rate and analgesic use were significantly reduced, and coping behavior was improved at a significance level of 0.001.¹¹⁰

Qualitative study using phenomenological design was done with postnatal mothers. Data was collected from twenty-five mothers through focus group discussion after 2 months of delivery and content analysis was done. Findings showed that the severity, duration, and pattern of labor were a major concern for almost all women. The nature of childbirth influenced the childbirth experience. Women who had vaginal birth felt brave, strong, determined, and confident. The women who made the caesarean section was considered a witch, weak, and loser. The study concluded that childbirth preparation interventions must provide specific care to individuals, to meet the specific needs and expectations of the mother during labor.¹¹¹

Randomized controlled trials of prenatal women based on mindfulness childbirth and childcare (MBCP) education. Participants were divided into an experimental group and a control group. RCTs have shown that mindfulness linked childbirth education improves women's childbirth assessments and emotional function compared to routine childbirth education. Participants in the mindfulness program showed high self-confidence and heartfelt awareness during birth and less post-course depression.¹¹²

Psychoeducation, mindfulness training, and cognitive group therapy were effective to reduce childbirth fear. A randomized controlled trial was conducted in women (n = 1410). They were randomly assigned to the experimental and control groups that underwent the BELIEF study. The control group received regular care from public obstetric services. A significant difference in fear was observed between the groups ($p < 0.001$) and self-efficacy at childbirth ($p = 0.002$). The study concluded that psychoeducation by trained midwives helped in decreasing anxiety of childbirth in women and in improving their childbirth confidence.¹¹³

A systematic review on the effects of childbirth education and complication susceptibility (BPCR) was performed. We performed meta-regression to correlate the impact of survey features like sample size, publication year. They registered the only observational study in the analysis. Out of twenty studies, fifteen reported the impact of education on childbirth preparation and the risk of complications. The occurrence of birth preparation and problem exigency was 16.5–56.3%. The estimated overall level of labor preparation and susceptibility to complications was 25.2% (95% CI: 20.0, 30.6%). Pregnant mothers with primary or higher education were more likely to prepare for childbirth and emergency obstetrics than uneducated mothers (OR = 2.4, 95% CI: 1.9, 3.1). The study concluded that very low proportion of women were prepared for birth.¹¹⁴

An experimental study to assess effectiveness of community-oriented training program on birth preparation and outcome was conducted among pregnant women ≤ 24 weeks of gestation and were followed up till postnatal period. The study revealed that CBCT intervention was powerful in developing positive behavior on birth preparation.

Pregnant women who underwent CBCT intervention had two times favorable pregnancy outcome.¹¹⁵

Childbirth satisfaction or positive childbirth experiences may be enhanced by implementing childbirth plan under childbirth education classes. Effectiveness of quasi-experimental study was assessed by administering a structured birth plan. Aim was to identify its efficacy on women childbirth experience and on maternal-neonatal outcome. Experimental group received birth plan and control group received routine care. The findings revealed that intervention group had high mean satisfaction, positive experience of delivery, reduced duration of labor, and a decreased pain level as compared with the control group.¹¹⁶

Madhavanprabhakaran et al. conducted a randomized control study to assess efficacy of childbirth education program on first-time pregnant women birth preparation, anxiety, and outcome. The participants were pre-tested for childbirth process, knowledge, childbirth preparation, and anxiety related to childbirth. Simple randomization technique was used for allocation of groups. Experimental group received childbirth education and the comparison group received routine care. The treatment group had high knowledge on birth preparation ($p < 0.001$). There was decreased post-intervention anxiety scores in primiparas in the experimental group, and a significant reduction in delivery by caesarean section. The study concludes that birth education may empower women with knowledge. Birth education would help to decrease operative procedures and also anxiety.¹¹⁷

Childbirth preparation program tend to increase childbirth self-efficacy and contributes to positive childbirth experiences. Experimental study was conducted to assess the

efficacy of childbirth preparation courses on women's self-confidence in Israel. Women between gestational age of 25–35 weeks were included and allocated to intervention and comparison groups. Self-efficacy questionnaire was administered to both three times. First, before providing preparation class; second, after 2–3 days of delivery; and third, after 1 month of delivery. On third data collection, the level of self-efficacy was higher in intervention group than in the comparison group. The study self-efficacy mean score T1 ($M = 3.40 \pm 0.63$) dropped to T2 (3.06 ± 0.76) and then rose to T3 (3.34 ± 0.64), whereas in comparison group T1 (3.53 ± 0.56), T2 (3.26 ± 0.63), and T3 (2.95 ± 0.76) self-efficacy scores were lower.¹¹⁸

Gap in literature

Ample evidence is available in literature which mentions certain variables that influence childbirth experiences and outcomes. These variables include anxiety, pain, self-efficacy, childbirth preparation, childbirth fear, childbirth expectation, childbirth education classes, and support of companion during labor. The review of the literature indicates the findings of previous studies and supports the benefits of prenatal education and nursing support, to help a parturient cope with birth pain and overcome the stress and fear of unknown. However, previous studies had been conducted in culturally diverse areas; therefore, content and implementation of the childbirth classes given also varied widely. Through extensive literature review, it was evident that some childbirth education classes focused on enhancing knowledge; others on exercises and pushing techniques; some others focused on yoga, meditation, and mindfulness training. Therefore, this calls for the development of a comprehensive, tailor-made birth preparation program that is more culturally suited for use in India. Pregnant women

need to be well informed about the entire labor process, breathing techniques, and various other techniques to relieve labor and improve the childbirth experience. As a woman approaches childbirth, she can benefit from her prenatal class by incorporating information about various anticipatory behaviors during childbirth. Literature reviews have also shown that childbirth preparation programs are powerful in enhancing the knowledge, awareness, and practice of mothers of firstborn. Therefore, researchers believed that it was necessary to develop a comprehensive delivery preparation and delivery preparation program that was culturally and scientifically consistent with the needs of the mother for the first time in the selected research environment.

Summary

The chapter deals with extensive review literature on childbirth preparation, expectation among women, fear, experiences, and its effects on mothers. It also discusses about effect of birth preparation intervention on birth experiences and maternal-neonatal outcomes.