

## BREAST CRAWL - MATERNAL SATISFACTION

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### INTRODUCTION:

Birth is an important, often life-changing event that is accompanied by physiological and psychological changes in every woman's life. Its effect follows long-term positive or negative effects on both mothers and neonates.<sup>1</sup> Most of the woman experiences nervousness about labour and child care, especially primimother.<sup>2</sup> Childbirth is creating a positive experience for a woman and her family while preserving their physical and psychological health, preventing morbidity and reaction to emergencies. The strong relationship between a mother and a child, the development of parents' well-being, self-confidence, and the improved quality of life are positive effects of delivery<sup>3</sup>. Every mother has expectations during pregnancy which plays a very important role in the future perspective of child care. Midwives have the responsibility to identify the needs, desires, fears, and anxieties of the mother during labor for a positive birth experience<sup>4, 5</sup>. As the pregnancy weeks, the progressive's mother becomes enthusiastic to see the baby's face. The need of the mother after delivery of the baby is unlimited skin-to-skin contact baby's need is breastfeeding. Breast crawl is the term used to describe the movement of the baby on the mother's abdomen towards the breast. Every neonate has an inner instinct to find their mother's breast on her own and decides when to take breastfeeding. Breast crawl is mainly because of a baby's inborn instinctive ability which is similar to other mammals, who know how to find their mother's breast. Breast crawl is associated with a variety of sensory-motor, and neuro-endocrine components all directly and indirectly help the child to move around and facilitate his survival<sup>6</sup>. Breast crawl has tremendous potential to change initial practice hence it becomes excitement and motivation for maternity faculty. This method is considered the easiest and best method to implement early breastfeeding as recommended by the WHO.

### MATERIAL ANDMETHOD:

In this study the investigator assessed the effect of breast crawl on maternal satisfaction. A quantitative research approach and one group post-test research design was used for the present study. With convenient sampling technique 371 mothers, who delivered full term babies by normal vaginal delivery without complications were selected. Breast crawl questionnaire for

maternal Satisfaction after breast crawl was used.

### **Ethical Consideration:**

The study was initiated after approval of the Institutional Ethics Committee. Permission was obtained from the Hospital authority, Head of the Department in Obstetrics and Gynecology and Head of the Department of Pediatrics.

### **Data Collection:**

The objectives of the study were explained to the primi parturient mothers who were present on that day, before starting the data collection to get cooperation during the breast crawl technique. The mothers were assured of confidentiality of the collected data and explained that the newborn's health will not get affected. The mothers were screened for any complications in antenatal period. During delivery time, the mothers and babies were assessed for any complications. Breast crawl was performed and observed the maternal and fetal outcome. Immediately after the birth of the baby, face of the baby shown to the mother. Baby's body dried properly except the hands. Kept the baby on the mother's abdomen for the maximum duration of 60 minutes for skin to skin contact. After the initiation of breast feeding or successful breast crawl, maternal satisfaction was assessed. Ensured prevention of baby fall throughout the breast crawl. Those babies were not crawled and crossed 60 minutes were considered as unsuccessful breast crawl.

### **RESULTS:**

Among Successful breast crawl, Classification of mothers according to age shows that maximum 108 (31%) mothers were belong to 25 to 27 years of age, 157 (46%) mother completed Secondary education, 194 (60%) were House wife's by occupation, 98 (59%) mothers completed 40 weeks of gestation, 220 (64 %) mothers had 6 – 8 time hospital antenatal visit, no mother had any knowledge on breast crawl process and Maximum 213 (62 %) mother delivered Female baby where as only 131 (38 %) mothers gave birth to male babies.

Among Unsuccessful breast crawl, maximum 11 (41%) were belong to 25 to 27 years of age, (44%) mother completed Secondary education, 16 (59%) were House wife's, 13 (48%) mother's family had Between 11,000 to 15,000 rupees monthly income, Maximum 14 (52%) mothers completed 40 weeks of gestation, maximum 11 (41 %) mothers visited 3 – 5 time hospital and 16 (59 %) mother delivered Female baby where as only 11 (41 %) mothers gave birth to male babies.

**Table 1 : Proportion of Successful Breast Crawl**

| SL NO | Proportion Of Successful Breast Crawl | Number Of Babies | Percentage |
|-------|---------------------------------------|------------------|------------|
| 1.    | Successful Breast Crawl               | 344              | 93 %       |
| 2.    | Unsuccessful Breast Crawl             | 27               | 7 %        |

Out of 371 babies, 344 (93%) babies have succeeded in the breast crawl techniques with positive outcome and 27 (7%) babies were observed for unsuccessful crawl. This proves that 93% of success is observed in breast crawl intervention.

**TABLE 25: MATERNAL SATISFACTION AMONG SUCCESSFUL AND UNSUCCESSFUL BREAST CRAWL**

**N=371**

| BREAST CRAWL  | Successful Breast Crawl<br>Number of mothers (%) |          | Unsuccessful Breast Crawl<br>Number of mothers (%) |          |
|---|--|----------|--|----------|
|   | Yes  | No       | Yes  | No       |
| 1. Midwife explained about the breast crawl and its benefits before delivery                                    | 344(100%)  | 00(00%)  | 27(100%)   | 00(00%)  |
| 2. I felt happy when my baby cried immediately after birth  | 344(100%)  | 00(00%)  | 27(100%)   | 00(00%)  |
| 3. I felt happy to see and touch my baby very close distance  | 344(100%)  | 00(00%)  | 27(100%)   | 00(00%)  |
| 4. I felt comfortable when my midwife kept baby on my abdomen   | 344(100%)  | 00(00%)  | 27(100%)   | 00(00%)  |
| 5. I experienced that baby recognized my voice when baby was crawling on my abdomen                             | 344(100%)  | 00(00%)  | 7(26 %)  | 18(67%)  |
| 6. I have experienced less pain while suturing the perineum   | 235 (68%)  | 109(12%) | 15(56%)  | 12(44%)  |
| 7. I felt capable to hold the baby on my chest  | 322(93%)   | 22(7%)   | 11(41%)  | 16(59%)  |
| 8. I felt my baby experienced level of sense of security while crawling   | 317(92%)   | 27(8%)   | 02(7%)   | 25(93%)  |
| 9. I experienced baby is lifting the head to find the breast and trying to touch my breast, smelling my breast. | 337(98 % )                                       | 7(2%)    | 3(11%)   | 24(89%)  |
| 10. I experienced my baby is searching for his first feed   | 342 (99.4%)                                      | 2 (0.6%) | 4 (15%)  | 23 (85%) |
| 11. I experienced a very good interaction with my baby during crawling  | 344 (100%)                                       | 00 (00%) | 2 (7%)   | 25 (93%) |
| 12. I felt happy while baby opens the eyes while crawling   | 344 (100%)                                       | 00 (00%) | 27 (100%)  | 00 (00%) |
| 13. I was holding my baby properly from falling   | 344 (100%)                                       | 00 (00%) | 22 (81%)   | 5 (19%)  |
| 14. I felt happy when my baby crawled to breasts took feed  | 344 (100%)                                       | 00 (00%) | 27 100%)   | 00 (00%) |

| BREAST CRAWL  | Successful Breast Crawl<br>Number of mothers (%) |          | Unsuccessful Breast Crawl<br>Number of mothers (%) |          |
|---|--|----------|--|----------|
|   | Yes  | No       | Yes  | No       |
| 15. My midwife explained the importance of colostrum or first feed.                             | 344 (100%)                                       | 00 (00%) | 27 (100%)  | 00 (0%)  |
| 16. I felt emotionally stable after the long duration of labour process while crawling the baby | 344 (100%)                                       | 00 (00%) | 5 (19%)  | 22 (81%) |
| 17. I enjoyed the crawling of my baby towards the breast  | 344 (100%)                                       | 00 (00%) | 27 (100%)  | 00 (00%) |
| 18. My midwife inspired me to wait patiently till the baby achieve breast crawl                 | 344 (100%)                                       | 00 (00%) | 27 (100%)  | 00 (00%) |
| 19. I felt secured when my midwife explained me the time to time events of breast crawl         | 344 (100%)                                       | 00 (00%) | 27(100%)   | 00(00%)  |
| 20. I felt happy when I experienced a pleasure of motherhood                                    | 344 (100%)                                       | 00 (00%) | 27 100%)   | 00 (00%) |

Among successful breast crawl, 235 (68%) mothers verbalized that they have experienced less pain during episiotomy suturing, 322 (93%) mothers expressed that they felt capable of hold the baby on chest and 317 (92%) mothers experienced level of sense of security while crawling. Breast crawl items for maternal satisfaction shows that almost all mothers were satisfied with the breast crawl techniques. All mothers stated that midwife explained about the breast crawl and its benefits before delivery, felt happy when their baby cried immediately after birth, felt happy to see and touch the baby from very close distance, felt comfortable when midwife kept baby on abdomen, mother experienced that baby recognized mothers voice when baby was crawling on abdomen, with very good interaction with baby during crawling, felt happy while baby opens the eyes while crawling and holding baby properly from falling and baby crawled to breasts took feed. Mothers also told that they were emotionally stable after the long duration of labour process while crawling the baby by enjoying the crawling of baby towards the breast and mothers stated that midwife inspired me to wait patiently till the baby achieve breast crawl and felt secured when mid-wife explained the time to time events of breast crawl finally all mothers felt happy when experienced a pleasure of motherhood.

Among unsuccessful breast crawl, all mothers stated that Midwife explained about the breast crawl and its benefits before delivery, felt happy when their baby cried immediately after birth, felt happy to see and touch their baby very close distance, felt comfortable when midwife kept baby on abdomen. 7 (26) % mothers stated that they have experienced that baby recognized their voice when baby was crawling on abdomen. 15 (56%) mothers experienced less pain during episiotomy

suturing. 11 (41%) mothers felt capable to hold the baby on chest. 25 (93%) mothers didn't felt level of sense of security while baby was crawling. 24 (89%) mothers experienced that baby is lifting the head to find the breast and trying to touch breast and smelling the breast. 23 (85%) mothers didn't experienced that baby is searching for first feed. 25 (93%) mothers experienced a very good interaction with their baby during crawling. 22 (81%) mothers were holding their baby properly from falling. 22 (81%) were felt emotionally stable after the long duration of labour process while crawling the baby. All 27 (100%) mother were felt happy while baby opens the eyes while crawling, but baby failed to crawl successfully and to find breasts for taking feed. Mothers also felt secured when researcher explained breast crawling process and experienced a pleasure of motherhood.

**Table 26: BREAST CRAWL QUESTIONER FOR MATERNAL SATISFACTION**

N= 371

| Level of satisfaction  | Score | Successful Breast Crawl<br>Number of mothers (%) | Unsuccessful Breast<br>Crawl<br>Number of mothers (%) |
|------------------------|-------|--|---|
| Fully Satisfied        | 16-20 | 344 (100%)                                       | 02(7%)  |
| Moderately Satisfied   | 8-15  | 00 (00%)   | 25 (93%)  |
| Completely Unsatisfied | 0-7   | 00 (00%)   | 00 (00%)  |

The above table depicts that, according to satisfaction score 344 (100%) mothers among successful breast crawl group and 2(7%) mothers among unsuccessful breast crawl group (27) were fully satisfied. Whereas 25 (93%) mothers among unsuccessful breast crawl group were moderately satisfied. It shows that out of 371 mothers, no mothers were completely unsatisfied due to the breast crawl.

**Table 27: Comparison of unsuccessful and successful of breast crawl groups with mother's satisfaction**

N=  
371

| Groups       | Mean± SD    | SE   | t-value | P-value |
|--------------|-------------|------|---------|---------|
| Successful   | 19.45± 0.63 | 0.03 | 45.4711 | <0.0001 |
| Unsuccessful | 12.96± 1.43 | 0.27 |         |         |

\*p<0.05

The above table depicts that, according to satisfaction score a significant difference was observed between unsuccessful and successful breast crawl groups (t= 45.4711, p=0.0001) at 5% level of significance. It means that, the mean satisfaction score was significantly higher in successful of breast crawl group as compared to unsuccessful of breast crawl group. The successful breast crawl groups have more satisfaction as compared to their counterparts.

**Table 67: association between status of breast crawl with demographic variables**

| Socio demographic characteristics   | successful breast crawl |               |       |         | Unsuccessful breast crawl |               |       |         |
|-------------------------------------|-------------------------|---------------|-------|---------|---------------------------|---------------|-------|---------|
|                                     | Unadjusted OR           | 95% CI for OR |       | p-value | Adjusted OR               | 95% CI for OR |       | p-value |
|                                     |                         | Lower         | Upper |         |                           | Lower         | Upper |         |
| <b>Educational status of mother</b> |                         |               |       |         |                           |               |       |         |
| Up to Higher secondary education    | 2.69                    | 1.10          | 7.15  | 0.03    | 2.59                      | 0.86          | 7.84  | 0.09    |
| Graduation and Post-graduation      | Reference               |               |       |         | Reference                 |               |       |         |
| <b>Monthly income of family</b>     |                         |               |       |         |                           |               |       |         |
| Less than Rs. 15,000                | 6.16                    | 2.59          | 14.64 | <0.001  | 4.49                      | 1.73          | 11.69 | 0.002   |
| Above Rs. 15,000                    | Reference               |               |       |         | Reference                 |               |       |         |
| <b>Completed weeks of gestation</b> |                         |               |       |         |                           |               |       |         |
| 38 weeks                            | Reference               |               |       | 0.03    | Reference                 |               |       | 0.02    |
| Above 38 weeks                      | 3.35                    | 1.04          | 10.76 |         | 4.98                      | 1.28          | 19.35 |         |
| <b>Number of antenatal visits</b>   |                         |               |       |         |                           |               |       |         |
| Up to 5 visits                      | Reference               |               |       | <0.001  | Reference                 |               |       | <0.001  |
| Above 5 visits                      | 8.52                    | 3.74          | 19.40 |         | 8.14                      | 3.38          | 19.57 |         |

\*p<0.05

Binary logistic regression analyses was showed that, the association between socio-demographic variables with successful breast crawl as an outcome. It reveals that the odds of successful of breast crawl were significantly higher in respondents with education up to higher secondary as compared to respondents with graduation or post-graduation degree (Crude OR = 2.69, 95% CI = 1.10-7.15, p=0.03; adjusted OR = 2.59, 95% CI = 0.86-7.84, p=0.09), the educational qualifications of respondents were significantly associated with status of successful of breast crawl.

The odds of successful of breast crawl were significantly higher in respondents whose monthly income of family was less than Rs. 15,000 as compared to income is Above Rs. 15,000 (Crude OR = 6.16, 95% CI = 2.59– 14.64, p<0.001; adjusted OR = 4.49, 95% CI =1.73-11.69, p=0.002), the monthly income of family were significantly associated with status of successful breast crawl.

The odds of successful breast crawl were significantly higher in respondents completed weeks of gestation as above 38 weeks as compared to 38 weeks as (Crude OR = 3.35, 95% CI= 1.04– 10.76, p=0.03; adjusted OR = 4.98, 95% CI = 1.28-19.35, p=0.02). The completed weeks of gestation were significantly associated with status of successful breast crawl.

The odds of successful breast crawl were significantly higher in respondents having antenatal visits more than 5 as compared to as upto 5 antenatal visits (Crude OR = 8.52, 95% CI = 3.74– 19.40,  $p < 0.001$ ; adjusted OR = 8.14, 95% CI = 3.38-19.57,  $p < 0.001$ ). The numbers of antenatal visits were significantly associated with status of successful breast crawl.

### **DISCUSSION:**

According to satisfaction score 100% mothers among successful breast crawl group and 7% mothers among unsuccessful breast crawl group were fully satisfied. Whereas 93% mothers among unsuccessful breast crawl group were moderately satisfied. A significant difference was observed between unsuccessful and successful breast crawl groups ( $t = -45.4711$ ,  $p = 0.0001$ ) at 5% level. It indicates that, the mean satisfaction score was significantly higher in successful breast crawl group as compared to unsuccessful breast crawl group. The successful breast crawl groups have more satisfaction as compared to their counterparts.

A study conducted by Tiwari V<sup>7</sup> noted that 100% breast crawl mothers were satisfied. Altuntas, N,<sup>8</sup> Brockington, I.F,<sup>9</sup> Matthews MK.<sup>10</sup> noted that the higher the neonate gets more effective feeding the satisfaction scale score increases more. Comparing with the primi and multi parous mother Mathew founds that primiparous mothers were having higher percentage of satisfaction compared with the multifarious mothers ( $p < .05$ ).

Tombeau Cost K,<sup>11</sup> considered maternal satisfaction was due to skin to skin contact. Winberg J.<sup>12</sup> and Vidya K et al<sup>13</sup> mentioned that skin to skin contact of the infant and mother helps regulate the newborn's vital signs.

Study conducted by Bystrova K<sup>14</sup> states that Skin-to-skin contact, for 2 hours after birth of the baby, early suckling, or both influenced positively on mother-infant interaction till and after 1 year when compared with routines involving separation of mother and infant. Another researcher, Rapley G<sup>15</sup>. Holman DJ et al<sup>16</sup> explored the hormonal changes which occurs during breast crawl, early skin to skin contact and breast feeding starts Human Chorionic Gonadotropin (hCG) and estrogen hormones were highly influencing maternal behavior which have psychological as well as physiological impact on mother. However in the present study no hormonal assessment was done, still researcher believes that skin to skin contact may release many maternal hormones which make the mother to feel more satisfied.

### **Conclusion:**

In the present study maternal satisfaction was gather in term of experience how the baby recognized mothers voice, crawling on abdomen less pain while suturing the perineum, capable to hold the baby on chest, level of sense of security while baby was crawling, searching for his first feed the interaction with their baby during crawling and emotionally stability after the long duration of labour process while crawling the baby. Researcher believe that by breast crawl and skin to skin contact and effective feeds results into release of oxytocin and prolactin, causing better lactation and an empowered and confident mother. The complete feeding behavior makes mother to feel more satisfied. The care taken by mother during breast crawl, observing baby's movement, finally reaching nipple to feeding makes mother more happy and comfortable.

### **Strength of the study:**

This study is evaluated the effectiveness of breast crawl on maternal satisfaction with 344 mothers which is considered more enough sample to generalize the results.

### **Recommendation for Further Research:**

1. As earlier mentioned the effect of breast crawl would be best explained with control group research, further study can be conducted with additional comparative group.

**Conflict of interest:** None

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