

# Effectiveness of Education Training Program on Nurse-Midwives' Practices toward Immediate Mother and Newborn Skin to Skin Contact at Birth in Baghdad Maternity Hospitals

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**Abstract:** *The present study aims at determining the effectiveness of an educational training program nurses-midwives' practices toward immediate mother and newborn skin to skin contact at Birth in Baghdad Maternity Hospitals. A quasi-experimental "test-retest" design was carried throughout the present study with the application of a pre-test and post-test for nurses-midwives' knowledge regarding stages of labor and pre-test and post-test for their practices during stages of labor, as well as the use of observational checklist. Non-probability (purposive) consists of (70) nurse- midwife, is selected. The sample is exposed to pretest, educational training program and posttest. The sample recruitment takes place from April 10<sup>th</sup> 2017 to December 26<sup>th</sup> 2017. An educational training program is constructed based on initial assessment data and instrument is constructed, relative to the educational training program, to determine the effectiveness of the program on nurses-midwives' practices of skin-to-skin contact. The program and the instrument's content validity is determined through panel of (20) expert. The reliability of the instrument is obtained through the application of inter-observer reliability for the determination of the practices instrument's equivalence with adequate correlation coefficient of ( $r = 0.73$ ). Data are collected through the utilization of the nurses-midwives' practices observational tool for the nurses-midwives' practices as mean of data collection. Data are analyzed through the application of descriptive statistical data analysis approach of frequency, percentage, mean, grand mean, and standard deviation, mean of scores and relative sufficiency and inferential statistical data analysis approach of t-test. The results indicate that nurses-midwives' practices about skin-to-skin contact have been greatly improved after their being exposed to the educational training program. The study concludes that the educational training program is confirmed to be an effective measure that can improve nurses-midwives' practices.*

**Keywords:** Educational training program, nurse-midwives, practices, skin to skin contact

## 1. Introduction

Skin contact position for skin a way or method to advance postnatal care directly, reassuring breastfeeding entirely and increasing the duration of breastfeeding, nurses-midwives have an exact significant and effective role in the application of this condition and have an vigorous role in working and contact with pregnant mothers during the period of birth and obstetric consultations and related services in maternal health during childbirth. Nurse-midwife first person which works to help the neonatal contact with his mother directly after birth, in the sense of the first caregiver after childbirth<sup>1</sup>.

Studies have revealed many advantages for mothers who breastfeed straightaway after their birth, which the lack of postnatal bleeding, delayed ovulation (for family planning), natural contraception, increased weight loss, reduced and reduced risk of osteoporosis, low rates of breast and ovarian cancer, and increased motivation of breast-feeding for mothers and newborns. There are societal profits to good breastfeeding [2].

Skin-to-skin contact was accounted to be vital, and somewhat that midwives struggled to implement as a natural part of postnatal care. However, in daily practice, midwives

practiced many difficulties to such care, such as lack of knowledge among parents and other professionals about the benefits of skin-to-skin contact, the mother's state after the caesarean section, and other organizational problems (e.g. collaboration with other professionals, lack of time). Introducing more skin-to-skin care was a challenge for the midwives, who occasionally manipulated both sacked and disappointed when they strained to communicate the remunerations of such type of care [3].

The first hours of life are the ideal time to create original interactions between mother and newborn. Contact the skin to the skin, which happens at the first hour after birth, makes both mother and newborn interaction for both together. On the basis of such situation, this practice raises the mother's ability to take care of her child to improve self-assurance and the feeling of attachment. Midwifery is a foremost profession in endorsing family and community health. As we know, midwives show a chief and imperative role in the delivery process. These healthcare professionals are the first to initiate contact with newborns after birth. However, indication suggests that despite the Ministry of Health's focus on maternal and neonatal execution of skin-to-skin contact directly after birth, the mainstream of midwives refuse to achieve this health conduct. Most midwives had enough knowledge and positive attitude towards the

significance of contact between skin and skin. The profound period during the first hour or so after birth is meaningfully affected by raised levels of the maternal reproductive hormone, oxytocin, which passes the placenta to her baby [4].

Mothers and newborns experience a physiological need at the moment of birth and during the first hours and days to be together without separation. The existence of mothers and their newborns together is a safe and healthy birth practice. Indication of instant care support, without any parting of skin contact to the skin after birth during and after vaginal delivery of all mothers and newborn steady their health status, irrespective of nutrition preference. Unrestricted opportunities for skin contact skin and breastfeeding endorse best consequences for the mother and her baby. This article is a review based on the efficient evidence of "Lamaze International Care Practices that Promote Natural Birth Practice". No Mother and Child Separation, with Unrestrained Breastfeeding Opportunities [5].

This profound time, sometimes called the "magical hour," "golden hour," or "sacred hour," necessitates admiration, safeguard, and sustenance. Disrupting or delaying skin-to-skin care may overpower a newborn's innate protective behaviors, lead to behavioral inefficiency, and create self-attachment and breastfeeding more problematic. Deficiency of skin-to-skin care and initial parting also may interrupt maternal-infant attachment, diminish the mother's disturbing response to her baby, and have a negative consequence on maternal behavior. This has been exposed by bumpier handling of the baby during feedings, lower affecting responses, and fewer maternal behaviors in response to a baby's prompts at 4 days postpartum [6].

Relative to previous studies and field work, lack in nurses-midwives' practices and the presence of malpractices have been identified in labor room. So, the present study aims at

providing these nurses-midwives with educational and training opportunities to improve their practices toward immediate mother and newborn skin to skin contact at birth. Furthermore, the education training program increases establishment of initial interactions, breastfeeding and identification of its effectiveness can be determined.

## 2. Methodology of the Study

A quasi-experimental "test-retest" design was carried throughout the present study with the application of a pre-test and post-test for nurses-midwives' knowledge regarding stages of labor and pre-test and post-test for their practices during stages of labor, as well as the use of observational checklist. Non-probability (purposive) consists of (70) nurse- midwife, is selected. The sample is exposed to pretest, educational training program and posttest. The sample recruitment takes place from April 10<sup>th</sup> 2017 to December 26<sup>th</sup> 2017. An educational training program is constructed based on initial assessment data and instruments are constructed, relative to the educational training program, to determine the effectiveness of the program on nurses-midwives' practices of skin-to-skin contact. The program and the instrument's content validity is determined through panel of (20) expert. The reliability of the instrument is obtained through the application of inter-observer reliability for the determination of the practices instrument's equivalence with adequate correlation coefficient of ( $r = 0.73$ ). Data are collected through the utilization of the observational tool for the nurses-midwives' practices as mean of data collection. Data are analyzed through the application of descriptive statistical data analysis approach of frequency, percentage, mean, grand mean, and standard deviation, mean of scores and relative sufficiency and inferential statistical data analysis approach of t-test.

## 3. Results

**Table 1:** Overall evaluation among the Pretest and Posttest Periods (Nurses–Midwives’ Practices and Nurses–MidwivesPractices for Mothers and Their Newborns) of the Study Sample

| Variables   | Overall Evaluation | Pretest-period |                | Posttest-period |         |
|---|--------------------|----------------|----------------|-----------------|---------|
|   |                    | Frequency      | Percent        | Frequency       | Percent |
| Nurses- Midwives’ Knowledge                               | Low (0 - 49)       | 14             | 12.3           | 0               | 0       |
|   | Moderate (50 – 75) | 53             | 46.5           | 0               | 0       |
|   | High (76 – 100)    | 3              | 2.6            | 70              | 61.4    |
|   | Total              | 70             | 61.4           | 70              | 61.4    |
|   | $\bar{x} \mp SD.$  | 1.8429± .47045 | 2.9429± .23379 |                 |         |
| Nurses– Midwives’ Practices                               | Low (0 – 49)       | 14             | 12.3           | 0               | 0       |
|   | Moderate (50 – 75) | 56             | 49.1           | 4               | 3.5     |
|   | High (76 – 100)    | 0              | 0              | 66              | 57.9    |
|   | Total              | 70             | 61.4           | 70              | 61.4    |
|   | $\bar{x} \mp SD.$  | 1.8000± .40289 | 2.9429± .23379 |                 |         |
| Nurses–Midwives’ Practices for Mothers and their Newborns | Low (0 - 49)       | 65             | 57.0           | 6               | 5.3     |
|   | Moderate (50 – 75) | 5              | 4.4            | 18              | 15.8    |
|   | High (76 – 100)    | 0              | 0              | 46              | 40.4    |
|   | Total              | 70             | 61.4           | 70              | 61.4    |
|   | $\bar{x} \mp SD.$  | 1.0714± .25940 | 2.5714± .64989 |                 |         |

$\bar{x} \mp SD.$  = Arithmetic Mean ( $\bar{x}$ ) and Standard Deviation

Such overall evaluation presents moderate levels at the pretest period of nurses –midwives’ practices and low evaluation of nurses–midwives’ practices for mothers and

their newborns but high levels of evaluation on all variables at the posttest period of the Study sample.

**Table 2:** Comparison among the study groups of Main Domains Related to Practices Carried out by Nurses- Midwives when applying the Skin-to-Skin Contact (Practices Checklist) in Pretest-Posttest Periods

| Main Domains   | Period | F. | $M_G$  | SD.    | RS.   | Eva.  | Imp.% |
|--|--------|----|--------|--------|-------|-------|-------|
| Preparations of pregnant mother                                      | Pre    | 70 | 1.4881 | 0.6551 | 49.60 | Under | 67.26 |
|  | Post   | 70 | 2.8333 | 0.4741 | 94.44 | Upper |       |
| Practices during the first stage of birth                            | Pre    | 70 | 1.8035 | 0.6933 | 60.11 | Under | 50.00 |
|  | Post   | 70 | 2.8071 | 0.4228 | 93.57 | Upper |       |
| Practices during the second delivery process and application program | Pre    | 70 | 1.4703 | 0.4859 | 49.01 | Under | 62.52 |
|  | Post   | 70 | 2.7208 | 0.5246 | 90.69 | Upper |       |
| Practices during the third stage of birth                            | Pre    | 70 | 2.2000 | 0.7912 | 73.33 | Upper | 34.28 |
|  | Post   | 70 | 2.8857 | 0.3204 | 96.19 | Upper |       |

$M_G$  : Grand Mean, F.: Frequency, SD.: Standard Deviation, RS.: Relative Sufficiency, Eva.: Evaluation, Under: (less than 66.66), Upper: (66.67 – 100), Imp. : Improvement =  $((M_{post} - M_{pre}) / (2)) * 100\%$

Results out of such comparison have presented that the study group has under evaluation of their practices at pretest period on the main domains of preparation of pregnant mother and that of practices during the first stage of birth , and the second delivery process and application program and

upper evaluation at pretest-posttest periods on the remaining main domains but they have moderate improvement on three domains and low improvement on the domain of practices during the third stage of birth.

**Table 3:** Comparison among the Study Group of Main Domains Related to Practices Carried out by Nurses- Midwives for the Mother and her Newborn in Pretest-Posttest Periods

| Main Domains   | Period | F. | $M_G$  | SD     | RS.   | Eva.  | Imp.% |
|--|--------|----|--------|--------|-------|-------|-------|
| 1. Breastfeeding immediately after birth                         | Pre    | 70 | 1.2142 | 0.4409 | 40.47 | Under | 66.07 |
|  | Post   | 70 | 2.5357 | 0.6902 | 84.52 | Upper |       |
| 2. Practices in maintaining maternal temperature                 | Pre    | 70 | 1.1143 | 0.3122 | 37.14 | Under | 69.01 |
|  | Post   | 70 | 2.4964 | 0.6792 | 83.21 | Upper |       |
| 3. Practices in maintaining the temperature of the newborn       | Pre    | 70 | 1.0857 | 0.3024 | 36.19 | Under | 70.23 |
|  | Post   | 70 | 2.4904 | 0.6765 | 83.01 | Upper |       |
| 4. Practices to Evaluate the Cardiovascular System of the Mother | Pre    | 70 | 1.0678 | 0.3079 | 35.59 | Under | 69.11 |
|  | Post   | 70 | 2.4500 | 0.6859 | 81.66 | Upper |       |
| 5. Practices to evaluate the cardiovascular system of neonates   | Pre    | 70 | 1.3857 | 0.6252 | 46.19 | Under | 55.53 |
|  | Post   | 70 | 2.4964 | 0.6633 | 83.21 | Upper |       |
| 6. Practices to assess the respiratory system of the mother      | Pre    | 70 | 1.0428 | 0.1894 | 34.76 | Under | 72.50 |
|  | Post   | 70 | 2.4928 | 0.6534 | 83.09 | Upper |       |
| 7. Practices for assessment of neonatal respiratory system       | Pre    | 70 | 1.2785 | 0.5882 | 42.52 | Under | 60.36 |
|  | Post   | 70 | 2.4857 | 0.6537 | 82.85 | Upper |       |
| 8. Sleep, cry and passion  | Pre    | 70 | 1.0714 | 0.2568 | 35.71 | Under | 74.42 |
|  | Post   | 70 | 2.5599 | 0.6152 | 85.33 | Upper |       |

$M_G$  : Grand Mean, F.: Frequency, SD.: Standard Deviation, RS.: Relative Sufficiency, Eva.: Evaluation, Under: (less than 66.66), Upper: (66.67 – 100), Imp. : Improvement =  $((M_{post} - M_{pre}) / (2)) * 100\%$  Results out of such comparison have revealed that the study group has under evaluation of their practices for the mother and

newborn at pretest period on all main domains but upper evaluation of such practices on all main domains at posttest period, but they have moderate and good improvement on the domain of practices for the mother and newborn physical changes.

**Table 4:** Association between Nurses –Midwives’ Practices for Mothers and Their Newborn Regarding Physical Changes and Their Socio-demographic Characteristics

| Socio-demographic Characteristics | Chi-square | df | P-value | Sig. | Pretest-period |    | Posttest-period |      |
|-----------------------------------|------------|----|---------|------|----------------|----|-----------------|------|
|                                   |            |    |         |      | Chi-square     | df | P-value         | Sig. |
| Age                               | 3.232      | 3  | .357    | NS   | 6.204          | 3  | .102            | NS   |
| Marital status                    | 2.233      | 3  | .525    | NS   | 5.467          | 3  | .141            | NS   |
| Education                         | 4.943      | 4  | .293    | NS   | 4.131          | 4  | .389            | NS   |
| Job Title                         | .166       | 2  | .920    | NS   | 2.848          | 2  | .241            | NS   |
| Years of experience in Nursing    | 5.530      | 5  | .355    | NS   | 5.764          | 5  | .330            | NS   |
| Years of experience in Midwifery  | 7.614      | 5  | .179    | NS   | 5.856          | 5  | .320            | NS   |
| Training courses                  | 5.478      | 2  | .065    | NS   | .264           | 2  | .877            | NS   |
| Place of practicing midwifery     | .549       | 2  | .760    | NS   | .968           | 2  | .616            | NS   |
| Working shifts                    | .228       | 2  | .892    | NS   | 1.505          | 2  | .471            | NS   |
| Desire in midwifery               | 1.888      | 1  | .169    | NS   | .291           | 1  | .590            | NS   |

Df: Degree of freedom, P-value: Probability value, Sig.: Level of significance  
 Analysis of such association depicts that there is no significant association between nurses-midwives' practices for mothers and their newborn regarding physical changes and their socio-demographic characteristics.

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**Table 5:** Comparison among the Two Pre-Posttest Periods (Nurses-Midwives' Practices) on Overall Domains

| Period | Sample Size | Mean    | Standard Deviation |
|--------|-------------|---------|--------------------|
| 1      | 70          | 53.6286 | 5.49617            |
| 2      | 70          | 92.5429 | 8.75543            |
| Total  | 140         | 73.0857 | 20.84112           |

| Source of Variance | Sum Squares | df  | Mean Square | F       | Sig. |
|--------------------|-------------|-----|-------------|---------|------|
| Between Groups     | 53001.257   | 1   | 53001.257   | 991.925 | 0    |
| Within Groups      | 7373.714    | 138 | 53.433      |         |      |
| Total              | 60374.971   | 139 |             |         |      |

**Df: Degree of freedom, F: F-statistics, Sig.: Level of significance**  
 This table reveals that there is significant different means between nurses -midwives' practices. Hence, the null hypothesis is rejected because the p-value is equal to 0.000; there is significant statistical difference between the two periods ( $\bar{X}_1 = 53.6286, \bar{X}_2 = 92.5429$ ).

#### 4. Conclusion

Based on the interpretation and discussion of the study findings, the study can conclude that:  
 The education training program is confirmed to be an effective measure that can improve nurses-midwives' practices.  
 Nurses-midwives' practices have affectedly changed after being exposed to the education training program.

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