Effect of perinatal practices among exclusive breastfeeding during hospital stay.

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Abstract

Purpose: The aim of this study was to explored the pregnancy and post-natal hospital practices associated with breastfeeding and the determinants of exclusive breastfeeding during hospital stay. Methods: Cross-sectional study design was used. The data were collected by Prenatal Breastfeeding Educational Record and Postnatal Breastfeeding Assessment Record from a regional teaching hospital in the Northern Taiwan of the maternity ward during September, 2008 and December, 2009. Total of the 460 healthy postpartum women who deliver healthy infants joined the research. Results: The women with full-time work and cesarean section implemented exclusive breastfeeding were increased 7.12-fold ($p < .05$) and 18.75-fold ($p < .01$), respectively. Those whose first breastfeeding was carried out more than 4 hours increased 14.47-fold ($p < .01$) as comparing to those within 4 hours ones. The newborns wailed during first breastfeeding could reduce breastfeeding by 0.37-fold ($p < .05$). Exclusive breastfeeding rate of the women who took “The importance of rooming-in” and “The correct skill of expressed breastmilk” instructions increased 8.63-fold ($p < .05$) and 4.48-fold ($p < .05$), respectively. Implementation of exclusive breastfeeding dropped by 0.002-fold ($p < .001$) and 0.024-fold ($p < .001$) to the postpartum women who took “The correct posture of feeding” and “The nursing guideline of rooming-in” instructions were reduced. Conclusions: The finding suggests that there could be both negative and positive effect about breastfeeding as hospital practices are applied. Exclusive breastfeeding can be increased by adjusting pregnancy and postnatal nursing practices base on the result.

Key words: breastfeeding education, clinical practices, women health.
Introduction

In 1989, the Baby-Friendly Hospital Initiative was launched by the World Health Organization and UNICEF to promote and support breastfeeding (1,2). It was designed to create a favorable environment for breastfeeding in hospitals providing maternity care and to increase initiation, duration, and exclusivity of breastfeeding (3). But previous study showed some factors associated with exclusive breastfeeding. Such as maternal age, occupation, and education level; antenatal and maternity health care; health education, the child's birth weight and method of delivery (4-6). And timing of initiation of breastfeeding was associated with the type of delivery and hospital-related factors (7). Previous study showed that the lack of information about the advantages of breastfeeding, and absence or partial absence of rooming-in increase the risk of complementary breastfeeding during hospital stay(8). In 2000, for the global trend of breast-feeding, Department of Health of Taiwan was began the Baby-Friendly Hospital Accreditation, to create breastfeeding environment and consists of specific recommendations for maternity care practices. Over the decade, Taiwan’s hospitals to implement breastfeeding practices and educations in the pregnancy and postnatal period. Althought many of studies thought that perinatal practices supportive of breastfeeding rates (9-10). But perinatal practices could increase the rate of exclusive breastfeeding in Taiwan? Thus, the study aimed to identify the pregnancy and post-natal hospital practices associated with breastfeeding and the determinants of exclusive breastfeeding during hospital stay.

Methods

Research design and instrument

A cross-sectional study design was used. The data were collected by Prenatal Breastfeeding Educational Record and Postnatal Breastfeeding Assessment Record from a regional teaching hospital in the Northern Taiwan of the maternity ward during September, 2008 and December, 2009. The content validity index (CVI) was .82. In this study, the internal consistency (KR-20) of Prenatal Breastfeeding Educational Record and Postnatal Breastfeeding Assessment Record was .79 and .85, respectively.

Participants and Procedures

This study was approved by the foundation ethics committee. Sampling criteria included: (a) women were birth baby at >36 weeks gestation and baby without physical deformity; (b) women had no postpartum complication; (c) being able to listen, speak Mandarin or Taiwanese, could read or write Chinese; (d) consenting to participate the study.
Each participant’s information was obtained from initial interview and medical chart. Researchers explaining study of purpose and questionnaire to participants included informed consent. If they agreed to participate in this study, then following questionnaires were distributed to them. Each participants completed the form independently and returned to researchers. Questionnaires were numerically coded and nameless.

Data Analysis

Data were analyzed using the Statistical Package for Social Sciences version 15.0. T-test, $\chi^2$-test were performed for comparisons between two groups for demographic data, obstetrical data, and perinatal practices. Logistic regression analysis was used to study determinants of perinatal practices on exclusive breastfeeding. $p$ values smaller than .05 was considered as statistically significant.

Results

Characteristics of Participants

Total of the 460 healthy postpartum women who deliver healthy infants joined the research. Of these 328 participants were exclusive breastfeeding, and 122 participants were formula milk feeding. In demographic characteristics, the educational level ($\chi^2$=7.585, $p<.05$), work status ($\chi^2$=22.048, $p<.001$), breastfeeding class ($\chi^2$=51.441, $p<.001$), family support ($\chi^2$=171.486, $p<.001$) were significantly correlated with exclusive breastfeeding. In obstetrical characteristics, type of delivery ($\chi^2$=53.879, $p<.001$), birth weeks ($t$=11.515, $p=.001$), the status of newborns during first breastfeeding ($\chi^2$=66.452, $p<.001$) were significantly correlated with exclusive breastfeeding.

The correlation between the perinatal practices and exclusive breastfeeding

The study revealed the prenatal practices, included the benefit of exclusive breastfeeding instructions ($\chi^2$=5.790, $p<.05$), the nursing guideline of rooming-in instructions ($\chi^2$= 15.511, $p<.001$), the nursing guideline of skin to skin instructions ($\chi^2$=30.386, $p<.001$) were significantly correlated with exclusive breastfeeding. In the postpartum practices, the correct posture of feeding instructions ($\chi^2$=183.382, $p<.001$), the correct skill of expressed breastmilk instructions ($\chi^2$= 9.835, $p<.01$), first breastfeeding time after birth ($\chi^2$= 4.756, $p<.05$), implementation of skin to skin ($\chi^2$=13.037, $p<.001$), the nursing guideline of rooming-in instructions ($\chi^2$=15.715, $p<.001$) were significantly correlated with exclusive breastfeeding.

The predictors of exclusive breastfeeding during hospital stay

The results showed that women with full-time work and cesarean section implemented
exclusive breastfeeding were increased 7.12-fold (95% CI=1.473-34.385, p < .05) and 18.75-fold (95% CI= 3.459-101.626, p < .01), respectively. Those whose first breastfeeding was carried out more than 4 hours increased 14.47-fold (95% CI=2.388-87.718, p < .01) as comparing to those within 4 hours ones. The newborns wailed during first breastfeeding could reduce breastfeeding by 0.37-fold (95% CI=0.007-0.193, p < .05).

Exclusive breastfeeding rate of the women who took “The importance of rooming-in” and “The correct skill of expressed breastmilk” instructions increased 8.63-fold (95% CI=1.616-46.077, p < .05) and 4.48-fold (95% CI=1.047-22.372, p < .05), respectively.

Implementation of exclusive breastfeeding dropped by 0.002-fold (95% CI=0.0-0.024, p < .01) and 0.024-fold (95% CI=0.006-0.102, p < .001) to the postpartum women who took “The correct posture of feeding” and “The nursing guideline of rooming-in” instructions were reduced (Table 1).

Table 1. Logistic regression of the exclusive breastfeeding

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>full-time.</td>
<td>7.116</td>
<td>1.473-34.385</td>
<td>.015*</td>
</tr>
<tr>
<td>none</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cesarean section</td>
<td>18.748</td>
<td>3.459-101.626</td>
<td>.001**</td>
</tr>
<tr>
<td>The first breastfeeding &gt; 4 hours after birth.</td>
<td>14.472</td>
<td>2.388-87.718</td>
<td>.004**</td>
</tr>
<tr>
<td>The status of newborns during first breastfeeding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wailed</td>
<td>0.37</td>
<td>0.007-0.193</td>
<td>.000***</td>
</tr>
<tr>
<td>slumbered</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The nursing guideline of rooming-in instructions</td>
<td>8.629</td>
<td>1.616-46.077</td>
<td>.012*</td>
</tr>
<tr>
<td>(prenatal)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The correct skill of expressed breastmilk instructions</td>
<td>4.481</td>
<td>1.047-22.372</td>
<td>.043*</td>
</tr>
<tr>
<td>(postpartum)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The correct posture of feeding instructions</td>
<td>0.002</td>
<td>0.000-0.024</td>
<td>.000***</td>
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<tr>
<td>(postpartum)</td>
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<tr>
<td>The nursing guideline of rooming-in instructions</td>
<td>0.024</td>
<td>0.006-0.102</td>
<td>.000***</td>
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<td>(postpartum)</td>
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</tbody>
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*p < .05. ** p < .01. *** p < .001.

Conclusions

This research found that full-time work, cesarean section, first breastfeeding was more than 4 hours, the women who took “The importance of rooming-in” and “The correct skill of expressed breastmilk” instructions increased the rates of exclusive breastfeeding. The newborns wailed during first breastfeeding, the postpartum women who took “The correct posture of feeding” and “The nursing guideline of rooming-in” instructions reduced the
implementation of exclusive breastfeeding. The finding suggests that there could be both negative and positive effect about breastfeeding as hospital practices are applied. Based on the results, amendment to pregnancy and postnatal breast-related care content, to enhance the rate of breastfeeding and the benefits for mother and infant health.

References


