MIDWIFE’S IMPLEMENTATION OF MATERNAL AND NEONATAL CARE AFTER CESAREAN SECTION AT OBSTETRIC DEPARTMENT, NATIONAL HOSPITAL OF OBSTETRICS AND GYNECOLOGY IN 2018

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ABSTRACT

Aim: Description of Midwife’s implementation of maternal and neonatal care after cesarean section at Obstetric Department, National Hospital of Obstetrics and Gynecology in 2018.

Methodology: A randomized, cross sectional study was conducted on 50 midwives giving care for mother and child care after cesarean section.

Result: 86% of midwife implements and follows the whole procedure of postnatal care after caesarean section; 32% of midwife follows the preparation process with good communication skill; 88% of them follow the whole process of maternal and neonatal care; only 22% of them follow the whole procedure of guidance and consultation of maternal care.

Conclusion: Postnatal care after caesarean section is implemented well in management, examination, maternal and neonatal care; however, it has not been well implemented in preparation, communication and consultation.

Keywords: practice, maternal and neonatal care, obstetric department.

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I. INTRODUCTION:

The caesarean section accounts for a high rate, in our country according to the research by Vuong Tien Hoa in 2004, the rate of cesarean section is 36.9% [1]. Research by Le Hoai Chuong et al (2018) shows that the rate of cesarean section at National Hospital of Obstetrics and Gynecology in 2017 is up to 54.4% [2]. Although cesarean section can save the life of mother and fetus in some emergency situations, there is no evidence that there is a decrease in maternal and neonatal morbidity and mortality. In contrast, complications related to cesarean section increases, proportional to the rate of cesarean section [3]. Many studies show that cesarean section causes a higher risk of death and disease than normal delivery. Mortality rates for women giving birth naturally are usually 16.9/ million compared to 82.3/ million women undergoing cesarean section. According to NSCSA, 10% of women undergoing caesarean section need special care after delivery, 3.5% of them need to transfer to emergency care units [4].

After cesarean section, mother and newborns need special care and proper procedures to help mothers and children recover quickly, stay healthy, avoid complications after section. Including: checking and caring of newborns after section; checking and monitoring life functions for mothers; removing bandages, removing urine catheter; feeding mothers; ensuring the contact between mother and child and breastfeeding [3], [5]. In Vietnam, no research on maternal and neonatal care has been found after cesarean section. Even so, there are studies in mother and newborns, but limited to the sickroom visit and communication between postpartum women and midwives [6].

In order to understand the reality of practice on procedures of maternal and neonatal care after cesarean section, to find out interventions, we conduct research with the topic: “Midwife’s implementation of maternal and neonatal care after cesarean section at Obstetric Department, National Hospital of Obstetrics and Gynecology in 2018”.

II. OBJECTS AND METHODOLOGY

2.1. Subject: Midwives directly take care of mother and newborns after cesarean section at the time of the study.

2.2. Time and place of study

- Research period: From 4/2018 to 7/2018
- Research location: Obstetric Department, National Hospital of Obstetrics and Gynecology.

2.3. Study design: Cross-sectional description with analysis, quantitative research.

2.4. Sample size and sampling method

Because the process of collecting data on the implementation of the care process after caesarean section requires a lot of time and effort, it is impossible to take all patients completely, so we randomly select the formula:

\[ n = \frac{Z^2}{d^2(N-1)} \times p(1-p)N \]

Of which:

+ N: Number of patients cared for by midwives after cesarean section. Every month, about 100 patients are cared for after the cesarean section.
+ p: Proportion of failure to follow the procedure after cesarean section, because there has not been any previous research, it is assumed that the rate is p = 50% = 0.5.
+ Get 95% confidence level, \( \alpha = 0.05 \) we have

\[ Z^2 = (1.96)^2 \]

+ d: expected error of 10%, d = 0.1.

Replace the number we get n = 50 times to observe after cesarean section.

- How to choose patients:

Each week, list and randomly select 12 cases, observing no more than 2 cases a day and divided into morning - noon and afternoon - evening. The selection of cases is done both Saturday and Sunday.

Randomly select 25 cases in the morning - noon and 25 cases in the afternoon – evening.

2.5. Research tool set

The research toolkit is based on the following documents:

- The process of maternal and neonatal care after cesarean section has been issued by the National Hospital of Obstetrics and Gynecology.
Guidance on essential care of mothers and newborns during and immediately after cesarean section issued with Decision No. 6734/QD-BYT.

Guidance on maternity and neonatal care after cesarean section of Guidelines for cesarean section (“Caesarean section” by Royal College of Midwives and Royal College of Obstetricians and Gynaecologists, UK), published in pubmed.

### III. STUDY RESULTS

<table>
<thead>
<tr>
<th>General information</th>
<th>Frequency</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Yes</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Monitoring support</td>
<td>Yes</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>6</td>
</tr>
<tr>
<td>Care assessment</td>
<td>Yes</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

Planning was carried out in all midwifery, monitoring support was carried out in 88% of midwives, care assessment was carried out in 98% of births.

Figure 1. Full implementation of maternity care and management procedures after cesarean section

Assessment of mother management after cesarean section shows that 86% of midwives have been performed (full activities of planning, support monitoring and care assessment), while 14% still only managed 2 steps.
Table 2. Assessment of preparation, communication and visit

<table>
<thead>
<tr>
<th>General information</th>
<th>Midwife’s implementation</th>
<th>Frequency</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaching midwife’s preparation for maternity care after cesarean section</td>
<td>Yes</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reaching communication</td>
<td>Yes</td>
<td>40</td>
<td>80.0</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>10</td>
<td>20.0</td>
</tr>
<tr>
<td>Reaching visit to the status of mothers</td>
<td>Yes</td>
<td>27</td>
<td>54.0</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>23</td>
<td>46.0</td>
</tr>
<tr>
<td>Reaching visit to the status of newborns</td>
<td>Yes</td>
<td>30</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>20</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Preparation, communication and visit activities have achieved 100%; 80% of communication activities reached, reaching the status of mother with the lowest rate with 54%.

Chart 2. Fully implementation of preparation, communication and visit

Overall assessment results on preparation, communication and visit accounted for 32% and 68% did not fully implement the steps.
Table 3. Examination, maternal and neonatal care

<table>
<thead>
<tr>
<th>General information</th>
<th>Midwife’s implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Full examination</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Care of the incision</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Implementation of pain relief care</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Implementation of medical instructions</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

The highest rate of examination, maternal and neonatal care is the index of Midwife’s implementation of care for the incision with 100%, followed by a full examination, pain relief care and implementation of medical instructions for 96%.

Chart 3. Implementation of adequate examination, maternal and neonatal care

The overall assessment results on examination, maternal and neonatal care with a full implementation rate of 88%; the rate of inadequate implementation is 12%.
### Table 4. Guidance and counseling for mothers

<table>
<thead>
<tr>
<th>General information</th>
<th>Midwife’s implementation</th>
<th>Frequency</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietary guidance</td>
<td>Implementation</td>
<td>34</td>
<td>68.0</td>
</tr>
<tr>
<td></td>
<td>No implementation</td>
<td>16</td>
<td>32.0</td>
</tr>
<tr>
<td>Movement and rest guidance</td>
<td>Implementation</td>
<td>35</td>
<td>70.0</td>
</tr>
<tr>
<td></td>
<td>No implementation</td>
<td>15</td>
<td>30.0</td>
</tr>
<tr>
<td>Guidance on taking care of the incision</td>
<td>Implementation</td>
<td>47</td>
<td>94.0</td>
</tr>
<tr>
<td></td>
<td>No implementation</td>
<td>3</td>
<td>6.0</td>
</tr>
<tr>
<td>Guidance on sanitation</td>
<td>Implementation</td>
<td>38</td>
<td>76.0</td>
</tr>
<tr>
<td></td>
<td>No implementation</td>
<td>12</td>
<td>24.0</td>
</tr>
<tr>
<td>Guidance on breast care and breastfeeding</td>
<td>Implementation</td>
<td>37</td>
<td>74.0</td>
</tr>
<tr>
<td></td>
<td>No implementation</td>
<td>13</td>
<td>26.0</td>
</tr>
<tr>
<td>Advice for abnormal signs</td>
<td>Implementation</td>
<td>40</td>
<td>80.0</td>
</tr>
<tr>
<td></td>
<td>No implementation</td>
<td>10</td>
<td>20.0</td>
</tr>
</tbody>
</table>

Guidance and counseling activities for mothers accounts for the highest rate of implementation, providing advice on post-operative care with 94%, followed by counseling to monitor abnormal signs with 80%, dietary guidance, lowest rate of reaching the movement and rest guidance with 70%.

#### Chart 4. Full implementation of instructions and advice for mothers

The overall assessment results on examination, maternal and neonatal care with a full implementation rate of 88%; the rate of inadequate implementation is 12%.
**III. DISCUSSION**

**3.1. Management of maternity care after cesarean section**

*Maternity care planning activities*: According to the management process, every day, week, month, quarter, the National Hospital of Obstetrics and Gynecology and the Obstetric Department are all planning to arrange personnel for the care of patients. Therefore, the research results also reflect this situation with 100% of the midwives observed with sufficient work of care plan after cesarean section in the Obstetric Department of the hospital. The plan often helps proactively provide services to patients effectively, and this is a routine and mandatory requirement at the hospital. The results of our study are higher than those of sickroom visit for women at National Hospital of Obstetrics and Gynecology by Truong Thi My Ha, in which the planned rate of ward operation is 96.9% [6]. In fact, not only care is taken after cesarean section, but any care should have a plan to actively provide care for the patients effectively.

*Supportive monitoring activities*: The support monitoring rate in our research accounts for 88% of the observed cases. In fact, this ratio does not reach 100% of cases because of the thin manpower, therefore, supportive monitoring activities are only of professional support and direct the work in accordance with each case and operation at the department when incidents occur. According to Truong Thi My Ha, the study of going to the ward at National Hospital of Obstetrics and Gynecology by Truong Thi My Ha, in which the planned rate of ward operation is 96.9% [6]. In fact, not only care is taken after cesarean section, but any care should have a plan to actively provide care for the patients effectively.

*Care assessment*: Care activities are activities that are evaluated and delivered after every shift, or through daily, weekly handover of midwives. The results of the study are 98% of cases where midwives have activities to assess care results. Care assessment activities are necessary, thereby drawing lessons learned in the process of caring for patients, at the same time, help department leaders and hospital leaders perform better management.

**General assessment of management of maternity care after cesarean section**: The assessment results show that the rate of management, monitoring, support and assessment results accounted for 86% of the assessed midwives. Although the rate is relatively high, the management process that needs to be fully implemented is essential, thereby helping proactively provide care after effective cesarean section and preventing errors and incidents.

**3.2. Preparation, communication and visit activities**

Preparation and communication before taking care of patients are a requirement not only for care after cesarean section, which is required with all nursing care, midwifery care in general. Preparation and communication are described in detail in the Care Process after cesarean section at the National Hospital of Obstetrics and Gynecology and also prescribed in Decision No. 6734/QD-BYT dated 11/11/2016 of the Ministry of Health [5].

*Preparation*: The results show that the implementation rate accounts for 100% of the midwives in the study. The rate of preparation in the study is high, because this is a mandatory regulation in the hospital, if one of the above items is missing, when supervisor discovers, the midwife may be disciplined according to regulations. Although preparation is mandatory for all nursing and midwifery care activities, it is not always high in studies. Our research has 100% preparedness ratios, higher than one of Truong Thi My Ha, the proportion of full costumes in maternity midwives accounted for 89.4% according to the observational assessment and 84.5% reflected by the patients [6]. Over the years, the hospital always requires midwives to prepare well before taking care of the sick. The hospital also has some form of criticizing and reviewing individuals who do not fully implement the process, therefore the preparation has been well done in the hospital as well as in the department. Good preparation, the maternal care process after cesarean section will avoid the risks, unexpected incidents and ensure the psychology of patients better when implementing nursing care procedures.

*Communication*: Communication is a part of nursing care, communication is not merely an
exchange of information between midwives and patients, but communication also shows sympathy, sharing and love between midwives and patients [7]. The results of our research show that the rate of good communication performance accounts for 80%. The rate of failure to perform is mainly the greeting and self-introduction of the name given by the midwife who has taken care of and followed the women in the previous days, so she introduced her name to the sick and each midwife has a nameplate, so the midwife has not performed. Low communication is partly due to a lack of communication skills, partly due to the large number of patients and occupational stress. Therefore, the hospital needs to regularly train communication skills for midwives and arrange full staff.

Our research results are higher than that of Truong Thi My Ha, In which, greeting and introduction activities of midwives before maternal care accounted for 9.1% according to observation checklist and 16% according to patient feedback [6].

In fact, the communication activity has been thoroughly grasped by the hospital according to the Ministry of Health's directive in the renovation of subcontracting towards customer satisfaction [8].

Visit to mothers and visit to newborns: Visit to maternal status and visit to newborns is an important activity of midwives before taking care of patients, thereby detecting abnormal signs and monitoring the recovery of mothers, thereby reporting back to the doctors for more appropriate treatment. The results of our study show that the rate of visit to mothers is 54%, and the rate of visit to newborns is 60%. In fact, this result does not reach 100% because there are many reasons, in which each midwife has to take care of many mothers in the shift (18-32 mothers), so there is not enough time to do all the visits. For the visit to newborns, due to specific characteristics in the Obstetric Department, newborns have been examined, bathed and counseled by doctors and neonatal staff before returning to bed with their mothers every morning, so midwives often skip this step.

Visit to mothers by midwives will have value to reduce the rate of postpartum depression and stress. A review (11 studies) assesses the effectiveness of psychological interviews in preventing traumatic stress in populations and reports show individual interrogation has no impact on traumatic stress rates in 3-5 months (6 RCT, n = 387, OR = 1.22, 95% CI 0.60-2.46) and longer duration impact (after 1 year with 2 RCT, n = 238, OR 2.04, 95% CI 0.92-4.53) [9].

Results of general assessment on preparation, communication and visit: The results show that the percentage of all preparatory, communicating and inquiring activities accounts for 32%. This is a low rate, although preparation is 100%, however, the communication stage is not adequate, especially the questioning period in newborns is often overlooked in midwives. The communication situation is not fully implemented due to inadequate time, the young midwives have not experienced and have not received much training in communication. Therefore the hospital needs to organize classes on communication skills, ensuring the proper arrangement of midwives and assigning the work at the Obstetric Department to ensure that care after the caesarean section has good results.

3.3. Examination, maternal and neonatal care

Examination, maternal and neonatal care is the main activity of care after caesarean section in nursing, midwifery and are specified in the regulations of the hospital and the Ministry of Health in Decision No. 6734 / QD-BYT dated 15/11/2016 [5].

Full examination: Full examination according to regulations after caesarean section at the hospital includes comprehensive examination activities, pulse measurement, breast, abdomen, uterus examination, incision, fluid production and drainage examination. As a result, all 100% of patients were evaluated, however, the rate of full examined according to hospital guidelines accounted for 96%. The results show that it is very important to examine for mother in order to properly assess the current health status to make appropriate care plans. However, the fact that each mother is at different times of the health situation varies so the level and method of examination are different. Therefore, the regulation also needs to be more suitable to the health status of mothers.

According to NICE, after getting out of the recovery area to the patient's room, the observation should be continued every half hour for 2 hours and every hour afterwards is observed to be stable or satisfied. If observations are not stable, more observations should be made and clinical suggestions [3]. In fact, most of the women in the pathology department in the study we observed were in the stable period of health.
Midwives take care of the incision: Caring for the incision is an important step to consider and take measures to change bandages, clean, and give indications for prevention, treatment of wound injury or wound infection [3]. The results of our study show that the passed percentage of is 100% of midwives observed. This rate also reflects the fact that daily change of bandages and cleaning of the incision is required at the hospital's Obstetric Department.

Pain relief: The mothers are assigned diamorphine during and after section by spinal or epidural anesthesia. Mothers are given controlled anesthesia by using opioid groups, and women can use non-contraindicated, non-steroidal anti-inflammatory drugs as well as other anesthetic supplements [3]. Pain relief care has been focused, the Obstetric Department in combination of anti-pain units have monitored and taken care of pain relief after cesarean section with epidural anesthesia effectively. The results of the study show that 96% of the rates in pain relief care. The use of pain relief is necessary for women after cesarean section. On the other hand, pain relief care should also monitor complications of anesthesia, England and Wales studies show that the incidence of anesthesia region is 77% of section unplanned and 91% of section planned with regional anesthesia (spinal cord or hard outer membrane) [10].

Implementation of physician's medical instructions: One of the main functions of nurses and midwives is to carry out orders of physicians [7]. The same is true for after-cesarean care for mother, the midwives need to follow the doctor's treatment regimen. The research results show that the proportion of nurses who fully implement physicians' medical instructions accounts for 96%. The implementation of a doctor's medical instructions is a mandatory requirement for every nurse, so there should be stricter regulations in maternity care.

Overall assessment of maternal and newborn health care and care: The rate is 88%, while the rate does not reach 12%.

On the other hand, care is usually preferred for weaker women.

3.4. Guidance and counseling activities for mothers

Guidance and counseling activities are one of the main activities of nursing care [7]. Guidance and counseling for mothers is one of the maternity care activities after cesarean section. Guidance and counseling to help prevent and handle incidents and improve maternal and infant health both during and after hospitalization.

The results in our study show that the proportion of midwives who perform dietary guidance reaches 68%, guiding the movement and rest accounts for 70%, guiding the care for incisions accounts for 94%, instructions for proportional sanitation accounts for 76%, guidelines for breast and breast-feeding care accounts for 74%, advising abnormal signs accounts for 80%. The rate of implementation is uneven and no activity is performed 100%. Because the counseling activities at the hospital are very rich, in addition to counseling from midwives who directly take care, follow up, midwives give out instructional materials to mothers, there are direct counseling programs from TV rooms and waiting rooms for examination and waiting for delivery. On the other hand, many women are counseled, guided before delivery, many high-educated women have learned through books, documents and social networks or have been attending antenatal classes at hospitals, so the midwife does not provide guidance and advice again. In addition, there are many young midwives who do not have much experience and advice so they are not confident in implementing this step.

Compare with the research results of Truong Thi My Ha at National Hospital of Obstetrics and Gynecology in 2017 showed that in the work of sickroom visit, midwives instructed breastfeeding to account for 68.1% through midwifery assessment and 66% by feedback from patients; midwives guiding newborn care accounting for 48.4% through midwifery assessment and 33% through patient feedback; midwives instructing to monitor abnormal signs accounting for 53% through midwifery assessment and 45.5% through patient feedback; answering questions accounted for 62.1% through midwifery assessment and 60.5% through patient feedback; guiding patients to report doctors when
abnormalities accounting for 57.5% through midwifery assessment and 59.3% through feedback patients [6].

**IV. CONCLUSIONS AND RECOMMENDATIONS**

Study and observe the implementation of the care process after cesarean section at the Obstetric Department - National Hospital of Obstetrics and Gynecology, the results are as follows:

- Practicing the process of managing care services after caesarean section in midwives in general, the rate of full implementation results accounts for a high proportion with 86%, 100% planning, 88% support monitoring, 98% care results assessment.

- Preparation, communication and visit at a low rate with 32%, in which preparation is 100%, communication is 80%, visit to mothers is 54% and visit to newborns is 60%.

- Examination, adequate maternal and neonatal care account for a relatively high rate of 88%, in which: 90% full examination, 100% of incision care, 96% of pain relief care, 96% of implementation of medical instructions.

- Guidance and counseling for mother to reach low with 22%, in which: 68% for eating and drinking guidance, 70% for resting, 94% for incision care, 76% for sanitation, 74% for breastfeeding, and 80% for abnormal signs.

From the research results, the hospital needs to strengthen the management and supervision of the implementation of the care process after cesarean section at the hospital, on the other hand, it is necessary to improve knowledge and skills through regular training for midwives, especially in counseling, guidance and preparation. The hospital should also consider setting up standards for the process of sickroom visit suitable for each patient.

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