Original Research Article

DISCHARGE PLANNING STANDARD IN IMPROVING MOTHER’S SKILLS IN CARING FOR NEWBORN

Badrul Munif 1*, Ninis Indriani 1, Nanik Nanik 2

1 Nursing Program, Institute of Health Sciences Banyuwangi, East Java, Indonesia
2 Nurse at Fatimah Islamic Hospital, Banyuwangi, East Java, Indonesia

* Correspondence:
Badrul Munif
Nursing Program, Institute of Health Sciences, Banyuwangi,
Jl. Letkol Istiqlah No. 109, Telp (0333) 421610, Fax. (0333) 414070
Banyuwangi, East Java, Indonesia
Email: munifbadrul2@gmail.com

Article Info:
Received: 16 August 2020
Revised: 22 September 2020
Accepted: 28 September 2020

DOI: https://doi.org/10.36720/nhjk.v9i2.183

Abstract
Background: Primipara is a client who really needs discharge planning to support her baby care skills independently at home after returning from the hospital. Discharge planning is one of the important elements in nursing services to improve client skills independently to perform care after discharge.

Objectives: This study aims to determine the effectiveness of discharge planning according to the standards of maternal skills in caring for newborns.

Methods: The research design was a quasi experimental study with a pre and post-test design with a control group. This research was conducted at a hospital in Banyuwangi. The research sample was 30 spontaneous primiparous patients, then divided into two groups, namely the experimental group given discharge planning according to the standard n=15 and the control group given conventional discharge planning treatment n=15. Sampling using Consecutive Sampling and data collection using the observation sheet of maternal skills about baby care. Data analyzed using paired T test and unpaired T test.

Results: The results showed that the skills of mothers in caring for newborns in the experimental group had a higher value than the control group with the difference in the skills of caring for the umbilical cord of 3.60, changing diapers by 3.33 and breastfeeding by 6.60. Further analysis obtained p value=0.000 (p> 0.05), which means that there is a significant difference between the experimental and control groups.

Conclusion: Discharge planning in accordance with standards can improve the skills of mothers in caring for their babies. Discharge planning in accordance with the standards should be implemented in the hospital, because discharge planning is one of the important elements in nursing services which aims to make clients independent after discharge from the hospital.

Keywords: discharge planning, mother’s skill, caring, newborns
INTRODUCTION
The process of preparing patients when they are discharged from the hospital and at home is an equally important part of health care, to achieve SDGs number three, namely ensuring a healthy life and improving the welfare of all people of all ages (Said et al., 2016). The role of nurses is needed in providing health education to patients and families in order to prepare for independence in care when they return home (Yetti, 2007). One of the patients who really needs independence in care is the Post partum patient (mother after childbirth), where this statement is in accordance with the findings of research by Setyawati, Maryati, & Ermiati, (2016) which found that the behavior, knowledge, attitudes, and skills of postpartum mothers are low in self-care and her baby especially in Primipara.

One of the factors that influence this is the physical condition of the baby who is still weak and the mother’s lack of knowledge about caring for a newborn, which makes the mother less skilled and mistaken in caring for her baby (Zakiiyah, Ekasari, & Hanifah, 2017). Istiqomah & Mufida, (2014) in their research found that the impact of the lack of knowledge of mothers in caring for newborns affects the lack of skills of mothers in caring for newborns, which can lead to hypothermia. Another very dangerous impact of the lack of skills of mothers in caring for newborns is infection which leads to infant mortality (Norlina, 2017).

Post partum mothers after returning from the hospital must have knowledge about the care of newborns properly and correctly, because this can improve the skills of mothers in caring for their babies, so that they can prevent the baby from an undesirable condition, the baby will always be healthy, grow and develop into a smart generation (Marni & Rahardjo, 2016). Discharge planning is a complex health education process to prepare patients for a transition period in the hospital until the patient returns home, so that discharge planning is an important element in nursing services which aims to make patients become independent after discharge (Lin, Cheng, Shih, Chu, & Tjung, 2012).

The results of a preliminary study conducted by researchers at one of the hospitals in Banyuwangi in March 2019 found that almost all newborns and post-partum mothers had not yet obtained discharge planning according to standards. The discharge planning given is still in the form of filling out an assessment sheet when the patient is leaving where the officer only explains about the medication and time for control, without giving an explanation of how to properly care for the baby at home.

Implementation of improper discharge planning will cause no continuity of care independently when the patient is at home, where this condition occurs because the patient does not have the skills to carry out his treatment. This can lead to a decline in the patient's health, so that the patient returns to the hospital with the same disease or the emergence of more severe disease complications (Darliana, 2012). Implementation of proper discharge planning according to existing standards, namely explaining about drugs, time for control and independent care education is needed to improve patient skills when returning home, by sebap it is necessary to conduct research to determine the difference in the effectiveness of discharge planning according to standards and conventional discharge planning (which has been done at Islamic Hospital Fatimah Banyuwangi) regarding the skills of mothers in caring for newborn babies.

METHODS

Study Design
This research is a quantitative study with a quasi-experimental design pre and post test with control group.

Setting
This research was conducted from 4 August to 7 September 2019 in the Shofa Room of the Islamic Hospital Fatimah Banyuwangi.
**Research Subject**

The population of this study were all patients who gave birth spontaneously in the Shofa Room of the Islamic Hospital of Fatimah Banyuwangi as many as 65 patients starting from August 4 to September 7 2020. The sampling technique in this study used Consecutive Sampling with inclusion criteria, namely spontaneous primiparous patients who can read and write. The sample size of this study was determined using the minimal sample formula for experimental research from Federer (1977), as follows:

\[(t-1) (n-1) \geq 15\]

**Information:**
- \(t\): The number of group in a research
- \(n\): Replication

Based on the calculation using the formula above, the number of samples in each group was 15 respondents (the experimental group was given discharge planning according to standards, \(n = 15\) and the control group was given conventional discharge planning treatment, \(n = 15\)), so that the total number of samples in the study this is \(n = 30\).

**Instruments**

Data collection tools in this study used observation sheets of maternal skills about newborn care that were standardized and used in the Shofa Room of Fatimah Islamic Hospital, Banyuwangi. The maternal skill observation sheet includes skills to change diapers consists of 7 items that are assessed, breastfeed consists of 10 items that are assessed and care for the umbilical cord consists of 7 items that are assessed. The observation sheet is an observation sheet that has been tested for reliability (Cronbach’s alpha), it is known that the value of the reliability coefficient is \(r = 0.82\) so that the observation sheet is declared reliable.

**Intervention**

Improve the skills and independence of mothers in caring for their babies during the transition period in the hospital until the patient goes home. This study provides two intervention groups, namely the experimental group and the control group. The experimental group was given discharge planning according to standards, namely providing complete health education with give skills for breastfeeding, changing diapers and caring for the correct umbilical cord. The control group was given conventional discharge planning treatment, which was simply filling out the assessment sheet when the patient was going home and time for control only.

**Data Analysis**

Data analysis in this study used univariate and bivariate methods. The univariate analysis in this study included the maternal education variable which was analyzed using a frequency distribution, while the age variable was analyzed using the mean and standard deviation. Bivariate analysis in this study, the researcher first conducted a data normality test on the value of maternal skills in caring for babies which included breastfeeding skills, changing diapers, caring for the umbilical cord before and after being given discharge planning treatment using the saphiro-Wilk test. The results of the normality test obtained a \(P\) value\(< 0.05\), meaning that the data distribution was normally distributed. Bivariate analysis to determine the difference before and after treatment in the experimental and control groups using paired \(t\) test, while to determine the difference after treatment between the experimental group and the control group using the unpaired \(T\) test.

**Ethical Consideration**

This research has received ethical approval and is declared to have passed ethics by the Institute of Health Sciences Banyuwangi’s ethics commission with the number 445/KEPK/STIKES-BWI. In the data collection process, the researcher applies the principles of research ethics, namely calculating the benefits and losses incurred, respecting the respondent’s autonomy right, and ensuring the confidentiality and right to protection of the respondent.
RESULTS

Characteristic of Respondents by Educational Level and Age

Table 1 Distribution of Frequency of Respondents by Educational Level at the Shofa Room of the Islamic Hospital Fatimah Banyuwangi on 4 August until 7 September 2019.

| Variable               | Frequency (f) | Percentage (%) |
|------------------------|---------------|----------------|
| Educational Level      |               |                |
| Junior High School     | 3             | 10             |
| Senior High School     | 17            | 57             |
| Bachelor               | 10            | 33             |
| Total                  | 30            | 100            |

Sources: Primary Data of Questionnaire, 2019.

Based on table 1, it can be seen that the educational characteristics of the respondents are mostly with senior high school (SHS) as much as 17 (57%).

Table 2 Characteristics of Respondents by Age at the Shofa Room of the Islamic Hospital Fatimah Banyuwangi on 4 August until 7 September 2019.

| Variable | Frequency (f) | Mean | SD  | Min - Max |
|----------|---------------|------|-----|-----------|
| Age      | 30            | 24.80| 4.03| 17 - 32   |

Sources: Primary Data of Questionnaire, 2019.

Based on table 2, it can be seen that the characteristics of the respondent's age are on average 25 years old with a minimum age of 17 years and the oldest age is 32 years.

Determine the Difference Before and After Treatment in the Experimental and Control Groups used the Paired T Test, while to Determine the Difference After Treatment between the Experimental Group and the Control Group used the Unpaired T Test.

Table 3 Analysis of the Differences Before and After Treatmen in the Experimental and Control Groups used the Paired T Test at the Shofa Room of the Islamic Hospital Banyuwangi on 4 August until 7 September 2019.

| Mother’s Skill | Time     | Frequency (f) | Mean | S.D. | Difference | P Value |
|----------------|----------|---------------|------|------|------------|---------|
|                |          |               |      |      |            |         |
| Experimental group |         |               |      |      |            |         |
| Caring for the umbilical cord | Before | 15            | 9.20 | 0.94 | -3.87      | 0.000   |
|                   | After    | 13.07         | 1.98 |      |            |         |
| Changing diapers | Before   | 15            | 9.47 | 1.18 | -3.33      | 0.000   |
|                   | After    | 12.80         | 1.85 |      |            |         |
| Breastfeeding    | Before   | 15            | 9.60 | 1.24 | -6.53      | 0.000   |
|                   | After    | 16.13         | 2.82 |      |            |         |
| Control group    |          |               |      |      |            |         |
| Caring for the umbilical cord | Before | 15            | 9.27 | 1.22 | -0.20      | 0.27    |
|                   | After    | 9.47          | 1.18 |      |            |         |
Based on table 3, it can be seen that in the experimental group the skills of mothers to care for the umbilical cord after treatment experienced a significant increase of 3.87 with p Value 0.000, the skills of mothers changing diapers after treatment experienced a significant increase of 3.33 with a p value of 0.000 and maternal skills. breastfeeding after treatment also experienced a significant increase of 6.53 with a p value of 0.000. As for the control group, the skills of mothers caring for the umbilical cord after treatment increased slightly by 0.20 with a p value of 0.27, the skills of mothers changing diapers after treatment increased slightly by 0.14 with p Value 0.16 and skills of breastfeeding mothers after treatment slightly increased by 0.20 with p value 0.18.

Table 4 Analysis of Differences in the Skills of Mothers to Bathe Their Babies, Change Diapers and Breastfeed Newborns After Treatment in the Experimental Group and the Control Group at the Shofa Room of the Islamic Hospital Banyuwangi on 4 August until 7 September 2019.

| Mother’s Skill          | Group       | Frequency (f) | Mean | S.D. | Difference | p-Value |
|-------------------------|-------------|---------------|------|------|------------|---------|
| Caring for the umbilical cord | Experimental | 15            | 13.07 | 1.98 | 3.60       | 0.000   |
|                         | Control     |               | 9.47 | 1.18 |            |         |
| Changing diapers        | Experimental | 15            | 12.80 | 1.85 | 3.33       | 0.000   |
|                         | Control     |               | 9.47 | 1.06 |            |         |
| Breastfeeding           | Experimental | 15            | 16.13 | 2.82 | 6.60       | 0.000   |
|                         | Control     |               | 9.53 | 0.74 |            |         |

Sources: Primary Data of Questionnaire, 2019.

Based on table 4, it can be seen that the skills of mothers in caring for newborns consisting of the skills of caring for the umbilical cord, changing diapers and breastfeeding in the experimental group have a higher value than the control group with a selection of skills to care for the umbilical cord by 3.60, changing diapers for 3.33 and breastfeeding by 6.60. Further analysis obtained p value = 0.000 (p > 0.05), which means that there is a significant difference between the experimental and control groups.

DISCUSSION

The results of the univariate analysis show that the educational characteristics of the respondents are mostly senior high school education and the average age of new mothers is 25 years. This finding is in accordance with the results of research by Srianingsih & Ayu, (2014) which found that most of the mothers who were pregnant and gave birth to their first child were mostly aged 20-34 and had high school education. (Kudachi et al., 2017; Meseka et al., 2017; Singh et al., 2019).

Although age and education are said to be ripe for childbirth, the level of skills of a new mother to care for her baby, based on the results of research before being given treatment, is known to be still in the low category. Singh et
al., (2019) also said that although a mother who has just given birth to her first baby has a more mature age and higher education than a mother who has given birth to a second and third child, the skills to care for the baby are found to be lower. This difference is influenced by the experience of the skills of mothers in caring for their previous babies, where mothers who have previously given birth to children have the skills to care for newborns based on their previous experiences (Afiyanti et al., 2014).

The results of the bivariate analysis of the skills of mothers caring for the umbilical cord, changing diapers and breastfeeding newborns in the experimental group and the control group after treatment showed that the mean value of all skills had increased. This finding is in line with the research of Julianti et al., (2019), namely that providing education for planning to return home to new mothers can increase the knowledge and skills of mothers in caring for their newborns independently. The results of further analysis showed a significant difference, where the experimental group had a higher average score of maternal skills in caring for newborns, namely the difference in the skills of caring for the umbilical cord of 3.60, changing diapers by 3.33 and breastfeeding by 6.60 with p-value 0.000 ($p <0.05$).

The difference above occurs because in the experimental group the discharge planning given is according to existing standards, namely explaining about drugs, time for control and care education, while in the control group the discharge planning given is still conventional, namely simply filling out the assessment sheet when the patient is going home, such as explaining about drugs and time for control only. These findings are in accordance with the literature study by Darliana, (2012) who found that discharge planning for patients in the hospital is generally only in the form of notes on the patient’s resume and providing brief information about the schedule for patient control to the polyclinic, medicines that must be taken, a diet that is should be met and avoided after the patient is discharged from the hospital. This causes discharge planning to be ineffective and there is no continuity of care when the patient is at home.

Ineffective discharge planning will result in no continuity of care when the patient is at home. This condition can cause the patient’s condition to worsen so that the patient returns to the hospital with the same disease or the emergence of more severe disease complications. The discharge planning implementation process in accordance with the standards must be carried out comprehensively, starting from patient selection, assessment, intervention, to implementation and evaluation, besides that, nurses also need to implement the 4C strategy namely Communication, Coordination, Collaboration and Continual Reassessment, thereby ensuring continuity of care. patients independently at home (Darliana, 2012).

This research is still limited to measuring the skills of mothers in caring for their babies based on the skill observation sheet only. As for independence, measurements have not yet been taken, by sebap further research is needed to answer the existing theory, namely the implementation of discharge planning can ensure continuity of patient care independently at home.

**CONCLUSION**

Provision of discharge planning according to standards is proven to improve the skills of new mothers giving birth to their first child in caring for their babies. Implementation of discharge planning in accordance with the standards must be carried out completely, namely in addition to explaining about drugs and time for control, education and evaluation of independent care are needed, thus, hopefully there will be continuity of patient care independently at home. Discharge planning in accordance with standard should be routinely implemented in hospitals, because discharge planning is one of the important elements in nursing services which aims to improve care skills and to be independent of patients after discharge.
SUGGESTIONS
Most of the discharge planning given at the hospital is still in the form of filling out an assessment sheet when the patient is going home where the officer only explains about the drug and time for control, so that there is no continuity of independent care when the patient is at home, because the patient does not have the skills to perform care. The hope is that with the results of this study it can provide a stimulus for nurses in the hospital to provide discharge planning in accordance with the standards / given in full, namely in addition to explaining about drugs and time for control, education and evaluation of independent care are needed, with that hope for continuity of patient care independently at home.

ACKNOWLEDGMENT
Thank you to all respondents and parties who have helped in completing this research until the preparation of this article and we do not forget to also thank the ISLAMIC HOSPITAL Fatimah Banyuwangi for being a place of research.

DECLARATION OF CONFLICTING INTEREST
This research does not have a conflict of interest, either individuals or institutions.

FUNDING
Funding used in this study came from private funds.

AUTHOR CONTRIBUTION
Badrul Munif: Drafting the manuscript, revising the manuscript critically for important intellectual content, Conception and design of study, acquisition of data, analysis and/or interpretation of data.

Ninis Indriani: Conduct research and Approval of the version of the manuscript to be published.

Nanik Nanik: Conduct research and Approval of the version of the manuscript to be published.

ORCID
Badrul Munif
https://orcid.org/0000-0002-0924-9844

Ninis Indriani
None.

Nanik Nanik
None.

REFERENCES
Afiyanti, Y., Rachmawati, I. N., & Nurhaeni, N. (2014). Differences in Maternal Concern between Primiparous and Multiparous Mothers at the Beginning of the Post Partum Period. Jurnal Keperawatan Indonesia, 10(2), 54–60. https://doi.org/10.7454/jki.v10i2.174

Darliana, D. (2012). Discharge Planning in Nursing; A Literature Review. Idea Nursing Journal, 3(2), 32–41.

Istiqomah, S. B. T., & Mufida, N. (2014). The Relationship between Postpartum Mother Knowledge Level Parity 1 About Newborn Care with Hypothermic Incidence. Jurnal Edu Health, 4(1), 47–52.

Kudachi, Y. P., Prabhu, M., & Angolkar, M. B. (2017). Impact of Health Education on Knowledge of Newborn Care among Expectant Women in Urban Area of Belagavi, India: Pre and Post Study. International Journal of Contemporary Medical Research, 4(2), 305–308.

Lin, C., Cheng, S., Shih, S., Chu, C., & Tjung, J. (2012). Discharge Planning. International Journal of Gerontology, 6(4), 237–240. https://doi.org/10.1016/j.jige.2012.05.01

Marni, & Rahardjo, K. (2016). Care for neonates, infants, toddlers and preschoolers. Yogyakarta: Pustaka Belajar.
Meseka, L. A., Mungai, L. W., & Musoke, R. (2017). Mothers’ knowledge on essential newborn care at. *South Sudan Medical Journal, 10*(3), 56–74.

Norlina, S. (2017). Description of Postpartum Knowledge in Neonatal Care at Sungai Bilu Health Center, Banjarmasin, 2016. *Midwifery and Reproduction, 1*(1), 32-35.

Said, A., Budiati, I., Reagan, H. A., Riyadi, Hastutu, A., Anam, C., …Tama, D. (2016). *Early Portrait of the Sustainable Development Goals in Indonesia.* (A. Said & I. Budiati, Eds.). Jakarta: Badan Pusat Statistik Indonesia.

Setyawati, A., Maryati, I., & Ermiati. (2016). The Behavior of Postpartum Mothers During Joining Care at the Cirebon Muhammadiyah Maternity Hospital. *MEDISAINS: Jurnal Ilmiah Ilmu-Ilmu Kesehatan, 14*(1), 32–45.

Singh, D. R., Harvey, C. M., Bohara, P., Nath, D., Singh, S., Szabo, S., & Karki, K. (2019). Factors associated with newborn care knowledge and practices in the upper Himalayas. *PLoS ONE, 14*(9), 1–18. https://doi.org/10.1371/journal.pone.0222582.

Yetti, K. (2007). The role of nurses in improving the quality of peritomial dialysis patients. *Jurnal Keperawatan Indonesia, 11*(1), 25–29.

Zakiyyah, M., Ekasari, T., & Hanifah, L. (2017). Health Education and Baby Bath Training. *J- PENGMAS: Jurnal Pengabdian Kepada Masyarakat, 1*(1), 29–36.

**Cite this article as:** Munif, B., Indriani, N., Nanik, N. (2020). Discharge planning standard in improving mother’s skills in caring for newborn. *Nurse and Health: Jurnal Keperawatan, 9* (2), 152-159. https://doi.org/10.36720/nhjk.v9i2.183