Knowledge and Self-care Skills of Perioperative Patients

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Abstract. Health education is part of discharge planning, an important intervention in enabling patients able to continue their self-care at home. The purpose of this study was to determine the difference of the level of knowledge and skills of perioperative patients in self-care when health education was carried out, between in the team nursing care method with the primary nursing method. The research design used a descriptive correlation method, measurements were made using a knowledge questionnaire and for skills using an observation sheet. Analysis with dependent sample t-test and independent sample t-test, the places of research are in the Demang Sepulau Raya Hospital and in A. Dadi Tjokrodipo, Hospital in Lampung, 2019. The results show, after using the primary nursing method, there is a significant increase the knowledge and skills of patients and their families and health education can be carried out more often. In conclusion, health education is very important, especially if it is integrated into the primary nursing method. It is recommended that this method be continued with the existence of supporting instruments, procedures for health education, commitment of the staff and improving skills of nurses in providing health education.

Keywords: Knowledge · Skills · Health Education · Nursing Methods

1 Introduction

Discharge planning is the process of planning education for patients during hospitalization which aims to provide knowledge and skills for patients and their families to continue their care at home [5]. However, until now, discharge planning for hospitalized patients has not been optimally implemented, providing information only in the form of control information after returning home. The family has a role in maintaining patient safety while in the hospital room and of course also at home [12]. Nurses have an important role to help patients improve their abilities while in hospital [2]. Patients who are not prepared before discharge often return to the emergency room within 24 h to 48 h. In surgical patients, patients can return to the hospital with more severe injuries.

The nursing care method during this research, still with team method, but there have led to the primary nursing method. The team method of nursing care is a method of care in which a group of patients is treated by a group of nurses. Health Education when the team method is implemented, is carried out by several nurses (team members), depending

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on when the nurse is on duty. The primary nursing care method is a method of care that gives the patient one nurse who is responsible for observing the continuity of patient care from admission to discharge. Every time on duty, the primary nurse must take care of the patient for whom she is responsible. Health education in this method can be planned by the nurse because the nurse knows the patient, follows the development of the patient's condition, knowledge and skills. The primary nurse provides health education or if there are other nurses who continue, the topic just follows the planning of the primary nurse. The purpose of this study was to determine the differences in the knowledge and skills of perioperative patients in self-care when the team method was implemented with the patient's knowledge and skills after the primary nurse method was implemented through programmed health education.

2 Research Methods

The research was conducted at the Demang Sepulau Raya Hospital in Central Lampung and at the A. Dadi Tjokrodipo Hospital in Bandar Lampung, in 2019. The study was conducted using a quasi-experimental method with dependent t test, independent t test and multivariate [6]. Knowledge variables measured knowledge of mobilization, wound care and treatment, signs of infection and healthy lifestyle. The skills taught are hand washing, wound care and personal hygiene.

The population in this study were all patients who were treated at the time of data collection, 64 patients from both hospitals, both during the team method of nursing care and 64 patients during the primary care method with the criteria that the patient was not in a seriously ill condition, postoperative patients, hospitalized for at least 3 days [8]. The questionnaire has been tested on patients in the treatment room where there are perioperative patients. This research has received ethical approval from the Tanjungkarang Health Polytechnic.

The data collection process begins with sharing perception of methods of nursing care, health education processes, schedules and health education materials. With the Nursing Managers and Nursing Staff. Then measure the level of knowledge and skills of patients by using questionnaires and observation sheets when the team care method was implemented. Then, the method of nursing care in the inpatient room was changed to the primary nursing care method. At the intervention fase, the nurse appointed to be primary nurse with responsible for the continuity of nursing care for the patients, for providing health education (discharge planning). Health education is the process of providing information provided by nurses according to the patient's condition, carried out in front of the patient and his family, accompanied by demonstrations, starting one shift after surgery, or one day after surgery. Implementation procedure, leaflets and practical equipment were provided by researchers. When the patient went home, the questionnaire was measured again and the patient was asked to demonstrate skills such as caring for wounds, measuring vital signs, taking medication and scheduling controls. The second measurement process was carried out after the method of the primary nursing lasted for 3 weeks.

3 Results and Discussion

The research results will be describe in the following tables.

Table 1 shows the average patient during the team method and the primary method in adult category, the average length of stay is 4 days and the frequency of health education, twice during the team care method, 4 times in the primary nursing method.

Table 2 shows, the knowledge level of patients on the team method, 37 people (57.8%) at a low level, and the good level is 27 people (42.2%). The patient's skill level in the team nursing care method, 24 people (37.5%) at the low level, and the good level there are 40 people (62.5%). The level of patient knowledge on the method of the primary nursing care, 11 people (17.2%) at a low level, and the good level is 53 people (82.8%). The skill level of the patient on the method of primary nursing care, 9 people (14.5%) at the low level, and the good level there are 55 people (85.9%).

In Table 3, it can be seen that the average level of knowledge during the team method nursing care is 57 with a standard deviation of 8.96. At the time of primary nursing care, the average level of knowledge was 81.1 with a standard deviation of 15.54. The difference between the first and second measurements is 23.62 with a standard deviation of 16.59. The statistical test results obtained a value of 0.00, so it can be concluded that there is a significant difference between the level of knowledge in the first and second measurements. The average skill level at the time of team nursing care was 12.93 with a standard deviation of 1.16. At the time of primary nursing care, average skills level

Table 1. Respondents' Biodata

Method	Age	Length of stay	Education frequency
Team	36	4	2
Primary	43	4	4

Table 2. Comparison of Knowledge and Skills Levels

Competency	Frequency	percentage
Team method		
Low level knowledge	37	57,8
Good level knowledge	27	42,2
Low level skill	24	27,5
Good level skill	40	62,5
Primary module		
Low level knowledge	11	17,2
Good level knowledge	53	82,8
Low level skill	9	14,1
Good level skill	55	85,9

Table 3. Relationship between Level Differences Knowledge and Skills between Team Method with Primary Nursing Method

Variable	Mean	SD	SE	pValue	N
Knowledge					
Team method	57	8,96	1,12	0,00	32
Primary method	81,1	15,54	1,94		
Skill					
Team method	12,93	1,16	0,14	0,00	32
Primary method	15,58	1,98	0,24		

Table 4. Differences in Patient Competency Based On Frequency of Health Education

Health education	Mean	SD	SE	pValue	N
Low competency	3,10	0,87	0,20	0,00	19
Good competency	4,20	0,72	0,10		45

is 15.58, with a standard deviation of 1.98. The difference between the first and second measurements is 2.64 with a standard deviation of 2.27. The results of the statistical test obtained a value of 0.00, so it can be concluded that there is a significant difference between the skill level in the first and second measurements.

When the results of knowledge and skills are combined into the patient's competency level and correlated with the frequency of health education, the results are shown in Table 4. The average frequency of Health Education for low patient competency (knowledge and skills) is 3 times, with a standard deviation of 0.87, while good patient's competency is 4 with a standard deviation of 0.72. These results indicate a significant difference in the 0.05 alpha between the abilities (knowledge and skills) of perioperative patients in self-care. The conclusion is that if health education is more often carried out, the level of the patient's competency to care for himself is high and the frequency of health education is more often given when the primary nursing implemented.

The results of multivariate analysis to determine the effect of the frequency of health education, length of stay and age of the patient on the patient's knowledge and skills, knowledge and skills will increase if the frequency of health education and the age of the patient increases and will decrease if the patient is treated for longer. The results of patient biodata analysis show that the average age of the patient is at the adult level, they are very productive, trying to learn anything to get well quickly and what's more, the level of cognitive ability is still functioning perfectly so that the level of knowledge and skills can quickly increase through the education process. In early adulthood, they are trying to start and build their careers [15]. The length of hospitalization is still at a reasonable level of about 3–4 days, meaning that there are around 6–8 shifts of nurses who can provide health education.

The level of knowledge and skills of patients when the team method is carried out is lower than when the primary method is carried out because the health education process has not been programmed and structured. Health education is carried out only in the form of instructions and running routinely and not programmed. Nursing care only focuses on wound healing, the patient will understands enough with instructions or the patient learns on his own when he returns home.

When the primary nursing method, health education is carried out programmatically, starting from knowledge about pain, changing mobility to wound care. Wound care explanations were also carried out in stages, accompanied by leaflets and teaching aids so as to further support the understanding and skills of the patient or his family. Planning the education made the nurse whom he had known from the time he admission until he returned home. Health education directly to patients or families, can achieve effective results, as evidenced in research on hand washing through leaflet media which is effective in improving visitor behavior in washing hands. Nurses are expected to provide an explanation of the importance of hand washing to the patient's family so that nosocomial infections can be prevented [14]. Research also proves, Health Education can improve the quality of life of hemodialysis patients [4].

This increase occurs because nurses and patients knowing each, the learning process can take place well. Good experiences of patients during treatment, will increase patient satisfaction, improve nurse-patient relationships and create a spirit of learning. Methods that involve patients in their care, from the very beginning and the necessity of nurses always updating data, continuously, discussing conditions with patients will make patients feel safer, more involved and more obedient to the instructions of the health team [13].

The limitation of this study is that the questionnaire made by the researcher himself has not been widely tested, the number of respondents is not large, especially the number of patients with new surgical wounds but not chronic wounds. Another obstacle is that teaching materials in the form of leaflets and guidelines for implementing health education and demonstration tools are not yet available in the room.

4 Conclusion

Nurses should seriously implemented their work and professional nursing knowledge and skills, including in conducting integrated health education in nursing care methods. The results of good service will be seen in whether or not the patient recovers quickly, whether or not the patient is skilled at taking care of himself and whether or not the patient's knowledge about his condition and illness is good. Good knowledge and skills will make patients independent in taking care of themselves, can recover quickly, have no recurrence and can be productive again soon The results of this study are also in line with the opinion of Donna, et al. (2007), who said that patient participation in the treatment process resulted in a better healing process. This health education makes the patient the center of nursing care services and makes the patient the most responsible person in the healing process. Patients also become more confident and easier to work with, especially if their families also receive education so that they can help patients at home.

The differences in the level of knowledge and patient skills between the team method and the primary nursing method because the nursing manager and nurses really respond and supervise the process. The closeness of patients with nurses makes it easy for them to learn and they are also in patients productive age who still have cognitive abilities, enjoy learning and are motivated to recover quickly because of their role in society and their families.

These results indicate that health education, which is integrated into primary nursing method, improves the patient's knowledge and skills more quickly in self-care. Nurses are the most important in providing education [1, 14]. Patients and families who have the knowledge and skills to continue treatment at home will decrease their anxiety [9]. The nursing care method of the nurse in charge of the patient also provides career and work satisfaction for nurses and reduces nursing errors [7].

5 Suggestion

It is recommended that the primary nursing care method be followed up with supporting instruments for health education, standardized operational standards for its implementation. Nurses must also be refreshed with the actions that will be taught to patients and methods of documenting them [9].

The results of this study can be used as material for hospital nursing information, especially about integrated health education in primary nursing care methods. The results of this study become the scientific basis for changing in a programmatic and structured manner the nursing care and health education process so that it becomes a standard and recognized method in hospital services [3]. This method of care is good, because it can increase patient and nurse satisfaction, improve the quality of hospital services, and show the performance of nurses. The results of the research can be new material that can be taught in health education institutions so that when they graduate their abilities are already good. Further research, regarding diagnoses that often arise in relation to the making of nursing care standards, methods of health education in the room, the ability to carry out supervision, the ability to carry out effective communication and others can be a continuation of this research.

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