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ORIGINAL RESEARCH

BARRIERS TO THE IMPLEMENTATION OF THE EARLY WARNING SCORE IN THE HOSPITAL TREATMENT ROOM

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ABSTRACT

Background: Early warning score is one of the tools used by nurses in the treatment room to determine the critical condition of patients undergoing treatment. The early warning score can be a reference for changes in the patient's condition. Nurses have responsibilities, one of which is filling out the early warning score. Seeing the purpose of using the early warning score is very important in its implementation, but in implementing the filling of the early warning score, are there any obstacles felt by nurses. Objective: This research aims to find the barriers to implementing the early warning score in the treatment room. Methods: The method used is descriptive qualitative. The sample in this study was seven nurses in the treatment room. Result: The results of this study are three obstacles in applying the early warning score in the hospital treatment room: It takes a long time, allows for errors in adding up scores, and difficulties in remembering follow-up interventions. Conclusion: This study concludes that there are barriers to implementing the early warning score by nurses in the treatment room. Namely, it takes a long time to apply the early warning score using paper-based. It is possible to add up the scores incorrectly and have difficulty remembering further interventions that must be done.

Keywords

Barrier, Early warning score, Nurse

INTRODUCTION

According to PMK No.1 of 2017, patient safety is defined as a system that makes patient care safer. Including risk assessment, identification, and management of patient risk and solutions to minimize risks and prevent injury due to acting or not taking the action that should be taken. The implementation of patient safety in hospitals is influenced by the role of human resources, one of which is nurses (1). Nurses are health workers who have the most extended direct contact with patients. In addition, nurses provide 24-hour nursing care through a shifting work system. The nurse's work system has the potential to make mistakes or unexpected events. Errors or unexpected events can be minimized by increasing knowledge through nurse training and the availability of facilities that support the implementation of patient safety (2).

As implementers in providing nursing care, nurses must conduct focused assessments and observe vital signs to assess

and determine the risk of patient deterioration, detect and respond by activating emergency calls (3) Fast service and effective treatment are the beginning of improving patient survival. In the world, a scoring system for early detection or early warning has been introduced to detect a worsening of the patient's condition with the application of Early Warning Scores. Many hospitals have applied EWS in the UK, especially the National Health Service, the Royal College of Physicians, which has recommended the National Early Warning Score (NEWS) as a standard for the assessment of acute illness and is used in multidisciplinary teams, the Six Physiological Parameters in the National Early Warning Scores are used. On National Early Warning Score (NEWS) are respiratory frequency, oxygen saturation, temperature, systolic blood pressure, pulse rate, and level of consciousness (4).

The Early Warning Score (EWS) was first introduced in 1997 at the European Emergency Department. It was subsequently developed as a scoring system that aims to detect worsening of the patient's physiological parameters (5). EWS is generally used in the medical-surgical unit before the patient develops a different emergency (6). The EWS was developed to detect patients experiencing worsening conditions by assessing and analyzing vital signs in physiological parameters according to the scoring results (7). The use of EWS scoring allows for early intervention and timely treatment according to the scoring results obtained by each patient (8).

Implementation of an assessment using an early warning score is beneficial for nurses to identify a decrease in the condition that occurs in patients (9). The EWS system helps nurses to be able to diagnose and detect changes in conditions that occur in patients. EWS is very helpful for nurses in recognizing changes in the patient's condition (10). However, the implementation of EWS was felt to be not optimal, as evidenced by the results of research which showed that as many as 37% of nurses did not implement EWS according to SPO (11), another study explained that in one of the private hospitals in central Indonesia, there were 100% of nurses who did not implement EWS according to the algorithm in carrying out EWS Nursing care (12).

The benefits of the Early Warning Score are urgently needed for rapid follow-up implementation to be a significant part to be applied in nursing care, even though in previous studies, there were still many nurses who did not apply the Early Warning Score to their care. Constraints may be found by nurses when implementing their care. Therefore, this study aims to explore what obstacles are faced by nurses in implementing the Early Warning Score.

METHOD

Research Design

This study uses a descriptive qualitative study method on seven nurses who work in the treatment room. The sampling technique used purposive sampling with inclusion criteria; nurses who had worked in the treatment room for more than one year, had not taken more than one month left in the past year, and were familiar with the early warning score. The purpose of this study is to determine the obstacles that occur in the application of the early warning score.

Data Collection

The steps taken in the research must be in accordance with descriptive qualitative rules. The steps in the descriptive qualitative process according are bracketing, intuiting, analyzing, and describing. The first step, the researchers did bracketing, namely the effort to confine or store various assumptions, knowledge and beliefs of researchers regarding the inhibiting factors in the application of early warning scores. This process is carried out in order to obtain direct expressions from nurses naturally without the influence of the assumptions, knowledge and beliefs of the researcher.

The intuitive step is the step where the researcher enters the phenomenon without criticizing, evaluating or giving personal opinions about statements given by participants. In this step, the researcher

begins to collect information and explore the experiences of participants regarding the research phenomenon by means of interviews, direct observations and writing field notes without any opinion and evaluation from the researcher.

The next step is analyzing where the researcher integrates with the participant data by identifying the inhibiting factors by exploring the relationship and interrelationships between certain elements and the phenomenon. Then, the researcher identified the essence of the phenomenon by compiling keywords, codes, and categories and themes.

The last step is describing where the researcher communicates and provides a written description of critical elements or essences that are described separately and in the context of their relationship to one another from the inhibiting factors that occur in early warning scoring. Researchers make a narrative about the phenomenon under study based on keywords, categories, and themes. This research uses thematic analysis with six stages, namely familiarizing yourself with the data, creating the initial code, looking for themes, reviewing themes, defining and naming themes, and making reports.

Data Analysis

The transcripts that have been collected during the qualitative research are the results of in-depth interviews along with recordings of non-verbal responses from participants. According, before the data is analyzed, researchers must be very familiar with the data collected. Data analysis in qualitative research takes place synergistically with data collection procedures or in other words they overlap. Researchers are required to be able to think critically to simultaneously analyze the data obtained during the data collection procedure.

Ethical Consideration

This research has passed research ethics from Tanjungpura University with number 6464/UN22.9/PG/2021.

RESULTS

This study was conducted using open interviews, as many as seven nurses in the treatment room at a public hospital. The research results related to obstacles to implementing or implementing early warnings were obtained as many as three themes, namely: Takes a long time, allows wrong in adding up scores, and difficulties in remembering follow-up interventions.

The first theme found is that it takes a long time. Participants in this study revealed that their scoring was still in the form of paper-based scoring. The use of paper-based scoring causes nurses to write and do checklists manually, and sometimes it takes time to find the scoring section in the medical record sheet that is tucked away in certain areas. Participant (p1) said, "if I want to enter data, I have to open the medical record, look for the part that scored it, it won't take long," another participant said (P6) "it will take time if you want to fill it out because we still use manuals." Respondents revealed that it takes more time to fill out the EWS. This was also conveyed by participant (p3) "checking the score also adds time to filling out this article." Another participant said (p4), “we've checked the TTV, right, so Go back and forth, open the EWS paper lock, I've seen some TTV reports, go back and forth, it's time-consuming”.

DISCUSSION

Emergency conditions certainly require fast time, while on the other hand, the early warning score is an important part, but using paper takes a long time. The early warning score has more benefits for the patient. This is done by identifying a decrease in the condition that occurs in the patient during the treatment process (13).

The obstacle that takes a long time can cause nurses' compliance to fill in the early warning score to decrease, which will cause nurses to be reluctant to fill in the early warning score regularly. This nurse compliance factor in this study is explained to contribute to the process of improving patient safety. Nurse compliance becomes

one of the obstacles in improving the implementation of patient safety (14).

The second theme is to allow wrong in adding up the scores. The use of paper-based causes participants in EWS scoring to have to add up manually in the total score, this manual summation is felt to allow for errors in the addition, as stated by participant (p2) "It's a hassle if you want to calculate the total from the first point to the last point. At the end of the day, it's okay to blame" the other participants also commented (p7) "If you do the math, you'll have to look for all your cellphones, yes, even though sometimes we hold our cellphones, it's okay if we do manual calculations, we're afraid that something will go wrong in a week," the worry in manual addition is grave. Felt by the participants, the other participants also said (p4) "Sometimes I do the math a few times, I'm afraid I won't get the notes wrong and then it's different when we do the instructions that we want to do".

In another study related to the calculation of the score, it was revealed that there were many errors in calculating the EWS scoring on clinical changes in patients, namely the tendency for scores to be lower than the actual condition (15). This results in delays in the transfer of at-risk patients to the intensive care unit. Failure to follow the EWS pathway in patients' clinical changes and failure to communicate to obtain timely clinical responses were significant causative factors related to the incidence of clinical deterioration in hospitalized patients (16).

The final theme was difficulty in remembering follow-up interventions. The total score obtained by each patient will determine the action that must be taken. Differences in the range of values also have different follow-up interventions, so this makes nurses have to review or memorize what further interventions must be done, the possibility of forgetting other interventions is possible, or if you have to look at notes, it will also take additional time even in an emergency. An emergency requires immediate action to be taken. Participant said (P5) "if we have noted this, we will be careful about which action to take, let it go, I'll let it go", another participant also said (p7) "we have got the total score, we have to open the paper again However, for the appropriate instruction manual, it's hard to remember, how do you want to memorize everything, right? Another participant also found it difficult to memorize actions (p1). What we have to do", the participant (p3) also said, "it's okay to do something, so look for more where to find the instructions".

EWS on clinical changes that occur in patients is a patient care information system needed for early detection of worsening patient conditions. It supports decision-making on changes in the patient's condition. The smooth flow of information from the implementing nurse to the Patient Responsible Doctor in a precise and accurate manner is expected to improve the quality of patient care and improve patient outcomes (17).

Decision-making is, of course, based on guidelines which must be a reasonably necessary knowledge skill for a nurse to carry out an early warning score. This is also confirmed in research that states that a nurse's knowledge dramatically determines the success or failure of implementing the assigned tasks. Nurses who have good knowledge will increase work efficiency. Knowledge improvement will be very much in line with performance, which is the implementation of EWSS. To improve the application of EWSS, increasing knowledge must be done in hospitals (18).

Nurses carry out the early warning score on all patients in the inpatient room by filling out the early warning score form. The nurse also analyzes the results of the assessment obtained and makes follow-up efforts on the results of the analysis of the score calculation. Implementing a fast and precise early warning score can reduce or even prevent a patient's condition. The existence of an early warning score can make it easier for nurses to communicate with other health workers, especially doctors, about the patient's disease (9).

CONCLUSIONS

This study found obstacles to applying or implementing the early warning

score by nurses in the treatment room. The barriers are: It takes a long time to apply the early warning score using paper-based. It is possible to add up the scores incorrectly and have difficulty remembering the follow-up interventions that must be done. Future research is expected to develop early warning score product innovations in the form of appropriate technology, which is easy to use. The more significant obstacle found refers to filling out the early warning score, which is still manual or using paper, so this problem is very suitable for the application development process. Hospital accreditation standards are also aligned in the use of information technology in hospitals.

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