Exploration of Nurse Knowledge with Splints on Fracture Patients in Hospitals

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ABSTRACT

Intoduction: One of the main tasks of nurses in providing nursing care is placing splints on patients with fractures. This installation mechanism and procedure requires more knowledge and experience so it is hoped that there will be no mistakes. This study aims to identify knowledge related to splinting in patients with fractures.

Method: Non-experimental with a descriptive research approach with the aim of describing each variable. The population of this study was nurses who worked in the surgical inpatient room using a total sampling technique. The number of respondents in this study was 51 people. Data collection techniques using a questionnaire.

Result: Respondent data showed that the majority of respondents were male (62.7%), aged 26-45 years (100%), D3 Nursing education (62.7%), worked more than 3 years (100%), position in the room the majority of nurses were implementing (80.4%). The results of this study were that most of the nurses' knowledge was good (80.4%), the majority of the splints were good (72.5%).

Conclusion: The characteristics of nurses can affect the results of the knowledge of nurses who will be evaluated. Therefore, experience, education, and position can also be a benchmark in knowing a nurse's competence. Nurses need to increase competence in their respective fields so that they can improve the quality of service.

Keywords: Knowledge of Nurses; Services; Splints; Hospitals.

Introduction

The hospital as a health care system, in general, provides services to the community in the form of medical health services, medical support services, and care services. The hospital serves various health cases that occur in the community, including orthopedic cases, one of which is a fracture (Fakhurrizal, 2015). The occurrence of fractures causes damage to nerves and blood vessels resulting in pain. Pain that arises due to fracture is not only because of the fracture but because of the movement of bone fragments. To reduce the pain, painkillers can be given as well as immobilization techniques (not moving the fractured area) or which are often done with splinting techniques (Saputri, 2017).

WHO noted that in 2009 there were about 2 million people experiencing physical disability due to accidents. Some accidents are quite high, namely the incidence of fractures, including the upper and lower extremities, which are estimated at around 46.2% of the accidents that occur, where most of the victims are teenagers and young adults. WHO also explains that the incidence of fractures in the world is approximately 18 million people, in 2014 the prevalence was 2.7%, in 2015 with a prevalence of 3.2%, and in 2016 it increased to 21 million people with a prevalence of 6.5% (WHO, 2010). 2018). In Indonesia, the Ministry of Health 2014 found 10 million people experienced different fractures with different causes. Based on basic health research data, it was stated that out of 84,774 injured people, 5.8% had fractures. In East Java, in particular, the number of fracture cases exceeds the national average with a value of 6.2% compared to 5.8% (Riskesdas, 2018).

Knowledge is one factor that is closely related to the effectiveness of the implementation of nursing care. Knowledge of splinting in the rescue and temporary treatment of fracture victims before receiving more perfect help from doctors or paramedics. There are several splinting techniques that must be done, including the splint must be done through two joints in order to maximize the immobilization of the patient. Errors in the installation of the splint will cause disturbances in the comfort of pain in fracture patients. Fracture patients who experience pain are characterized by the patient grinning and the patient screaming in pain (Ferbiati, 2019). Splinting is a method of first aid for injuries/trauma to the musculoskeletal system which is useful for resting (immobilizing) the injured body part by using a tool. This splint aims to reduce and

eliminate pain, prevent fracture movements that can cause damage to the surrounding soft tissue (Smeltzer in Fakhrurrizal, 2015).

A fracture is a break in the human bone. For patients with fractures, the action that must be taken is to immobilize the fracture area, one of which is by placing a splint. Errors in placing splints occur for several reasons, one of which is the helper's low knowledge (Mardiono & Putra, 2018). Increased knowledge of nurses can lead to optimal services so that they can improve the quality of services in hospitals (Putri et al, 2021). This quality improvement can synergize with increasing patient satisfaction with a service. Satisfaction with service is a key indicator, of hospital standards. Increasing patient satisfaction can be done by providing optimal nursing care, so it is hoped that it can improve the patient's quality of life (Putri et al, 2021; Afandi et al, 2021). Therefore, researchers are interested in examining nurses' knowledge of splinting patients with fractures.

Method

Method in this research is non-experimental using a descriptive research design with the aim of describing each variable. The population of this study was nurses who worked in the surgical inpatient room at the hospital with a total of 51 respondents. The sampling technique used by the researcher is total sampling. The data collection mechanism used is a questionnaire. Respondent data collection lasted for one week by following the nurse's shift schedule. Respondent data was taken when the nurse paused or rested.

Result

Table 1. Characteristic of Respondents n (51)

Data Characteristics of Respondents	Total (n)	Percentage (%)
Gender:		
Male	31	62.7
Female	19	37.3
Age:		
18 – 25 years	0	0
26 – 45 years	51	100
>45 years	0	0
Education:		
SPK (School of Nursing)	0	0
D3 (Vocational)	32	62.7
Nurses	19	37, 3
Length of work:		
3 years	0	0
> 3 years	51	100
Position in the room:		
Head of Nursing	2	3.9
Team leader of Nursing	8	15, 7
Executive Nurse	41	80.4

The table 1. shows that the distribution of data on the characteristics of the respondents in this study is different between the categories that have been determined. In terms of gender, the majority are male and all respondents are in the age range of 26 – 45 years. The majority of education is vocational (D3) and the length of work of all respondents is above three years. The position or job desk of the respondent in the majority room is the implementing nurse.

Table 2. Data identification of respondent knowledge n (51)

No	Nurse knowledge	Result	
		Total	Percentage (%)
1	Good	41	80.4
2	Enough	10	19.6
3	Less	0	0
Total (%)		51	100

Table 2. show that the majority of respondents have good knowledge good with a percentage of 80.4. In table 3 show that the majority of respondents put splints correctly (72.5 %).

Table 3. Respondents splint identification data (n = 51)

No.	Splint installation	Result	
		Total	Percentage (%)
1	Good	37	72.5
2	Less	14	27.5
Total(%)		51	100

Discussion

Based on the results of the study, it was found that the majority of respondents were male. In line with Saptari's research (2016), the majority of nurses working in the treatment room are male at 60.2%. According to Fakih (2013), gender is an inherent trait of both men and women that is socially and culturally constructed. The difference between the genders of men and women is now not too significant to affect work results, but some considerations in placing employees according to a gender still need to be considered, especially for health services.

In the age range, it was found that all respondents were in early adulthood. In line with Mahasturi's research (2019), ER nurses were mostly aged 20-40 years, amounting to 79.3%. Soeprodjo et al's research (2017) the age of nurses is mostly at the age of > 39 years by 50%. Khoiroh et al's research (2020) shows that the age of nurses who are actively working in services is between the range of 20-40 years. Feist & Feist (2014) revealed that the older the individual, the better the psychological maturity of the individual, meaning that the more mature a person's psychology is, the better adaptation to anxiety will be. The older a person will get a lot of information and will be more mature in responding to a problem. So that decision-making in an action can be more optimal.

At the education level of the respondents, it was found that the majority of respondents' education was vocational. In line with Hakim's research (2016) that the majority of nurse education at Manado Hospital is vocational (D3) as much as 86.7%. In the study of Afandi & Ardiana (2021), it was found that the majority of nurse education at Jember Hospital was vocational (D3) as much as 62.3%. Education for everyone has its own meaning. Education is generally useful in changing mindsets,

behavior patterns, and decision-making patterns. A sufficient level of education will make it easier to identify stressors within themselves and from outside themselves. The level of education also affects awareness and understanding of the stimulus (Sadock et al, 2015). . The service mechanism is indeed very important in order to increase patient satisfaction so that it can become good marketing in the community. Education here does not really have a significant difference, because what is provided in hospital services is in accordance with what is expected by respondents.

The data on length of work showed that all respondents worked for more than three years. In Apriluana's research (2017) it was found that the majority of nurses who worked for more than 3 years were able to make better work adjustments. This is in line with Putri's research (2016) which found that nurses who worked for more than three years could minimize burnout at work. The length of work can update an individual's experience of various things, especially in skills. So that the longer the nurse is in her field, the more optimal the nurse's performance.

Working position in the room can have an influence in achieving the performance target of a nurse. The results of this study found that the majority of nurses became implementing nurses. The inpatient room in this research uses a team method in the approach to professional nursing care methods. The team method requires a team leader on duty in every shift carried out (Nursalam, 2015). In Purwandari et al's research (2019), it was found that nurses who carried out professional nursing care methods could be more optimal in handling patient problems. The focus of nursing care today is the patient who is often referred to as PCC (Patient-Centered Care). In the organization, it is necessary to appoint a leader for the work to be carried out in accordance with the objectives. In accordance with the position, nursing care will be maximized if it is carried out in accordance with their respective duties. The work of the implementing nurse is work that is directly related to patients and families. There is a need for more direct contact with patients and families. Implementing nurses more often carry out direct nursing actions and carry out direct nursing care. Increased knowledge must always be done to improve the quality of nursing services.

At the level of knowledge of nurses obtained the majority of results are good. In Nurnaningsih's (2021) research, it was found that the majority of nurses' knowledge of splinting techniques was good with a percentage above 50. When individuals have good

knowledge, they will be able to deal with problems that occur to them. According to Rifai et al (2019) in research on nurses, it was found that cultural factors from nurses can also affect nurses' knowledge in terms of making decisions about a case. Nurses' knowledge in handling patients is very important, especially when doing first aid to patients in need (Waraouw et al, 2018). Becoming a professional nurse must be ready to face the challenges of the times and the rapid development of science. The hope is that nurses must be more sensitive to changes and always follow the latest nursing science. Online media can be the main means for nurses in increasing their knowledge.

From the results of the study, it was found that the majority of splints were good. Nurses in carrying out their duties and responsibilities must understand the rights and obligations, one of which is in service. Nurses when going to carry out nursing care must understand the guidelines or guidelines for taking action so that the actions taken get good results. In line with the research of Fakhrurrizal (2015) nurses perform splints correctly and quickly in tackling emergency patients. In addition, Mardiono & Putra's research (2018) also found that the better the knowledge of nurses, the better the implementation of splinting. The implementation of the splint must be carried out properly and in accordance with the stages of the splint. In the process of splinting, several things need to be considered so that the purpose of the splint is achieved. As a nurse, knowledge, and installation must be done properly because apart from aiming to immobilize the patient. Good and correct splinting can reduce the level of pain in fracture patients.

Conclusion

Based on the results of the study, it can be concluded that the knowledge of the majority of nurses is good, so it is hoped that they can take action according to the procedure. In addition, in this study, it was also found that the installation of splints carried out by the majority of nurses was correct and in accordance with the guidelines. Increased knowledge of nurses really needs to be done in an effort to improve the quality of service in hospitals which will have an impact on increasing patient satisfaction.

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