

## Overview Of Nurses' Knowledge About Wound Care With The Moist Wound Healing Method In Hospitals Elisabeth Medan

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**Abstract.** Proper wound care will accelerate wound healing. Where the impact/complications of the wound can damage the physiology of the skin in the patient. Therefore, wound care techniques are one of the supporting factors in accelerating wound healing and restoring skin physiology by using moist wound healing techniques, which can help heal wounds more effectively. In this case, nurses are required to have knowledge about wound care using the moist wound healing method in hospitals. The purpose of the study was to identify nurses' knowledge about wound care using the moist wound healing method at Elisabeth Hospital Medan in 2022. **Methods:** The research method used was descriptive research. The sampling technique used total sampling technique, with a total sample size of 31 respondents. Data were collected using a questionnaire of nurses' knowledge about wound care using the moist wound healing method. **Results:** The majority of nurses' knowledge is sufficient as many as 18 people (58.1%) but there are still as many as 7 people (22.6%) who have less knowledge about this method. **Conclusion:** It is hoped that nurses can better understand and apply the moist wound healing method to improve the quality of service at Elisabeth Hospital Medan.

**Keywords:** Nurse Knowledge; Wound Care; Moist Wound Healing;

**Abstrak.** Perawatan luka yang tepat akan mempercepat penyembuhan luka. Dimana benturan/komplikasi luka dapat merusak fisiologi kulit pada pasien. Oleh karena itu, teknik perawatan luka menjadi salah satu faktor pendukung dalam mempercepat penyembuhan luka dan memulihkan fisiologi kulit dengan menggunakan teknik penyembuhan luka lembab, yang dapat membantu menyembuhkan luka dengan lebih efektif. Dalam hal ini, perawat dituntut untuk memiliki pengetahuan tentang perawatan luka menggunakan metode penyembuhan luka lembab di rumah sakit. Tujuan dari penelitian ini adalah untuk mengidentifikasi pengetahuan perawat tentang perawatan luka dengan menggunakan metode penyembuhan luka lembab di Rumah Sakit Elisabeth Medan pada tahun 2022. Metode: Metode penelitian yang digunakan adalah penelitian deskriptif. Teknik pengambilan sampel menggunakan teknik pengambilan sampel total, dengan total ukuran sampel sebanyak 31 responden. Data dikumpulkan menggunakan kuesioner pengetahuan perawat tentang perawatan luka dengan menggunakan metode penyembuhan luka lembab. Hasil: Mayoritas pengetahuan perawat cukup sebanyak 18 orang (58,1%) tetapi masih ada sebanyak 7 orang (22,6%) yang kurang memiliki pengetahuan tentang metode ini. Kesimpulan: Diharapkan perawat dapat lebih memahami dan menerapkan metode moist wound healing untuk meningkatkan kualitas pelayanan di Rumah Sakit Elisabeth Medan.

**Kata kunci:** Pengetahuan Perawat; perawatan luka; penyembuhan luka lembab;

### 1. INTRODUCTION

Wounds are disturbances of the integrity of the skin caused by many things, such as friction, pressure, temperature, infection and others. Wounds such as chronic wounds generally require a long time for a more complex healing and treatment process in providing proper nursing care and having good knowledge and skills related to the wound care process. Wound

care has three phases in wound healing, the first is the inflammatory phase that occurs after the wound until the fifth day where the angiogenesis process occurs when the endothelial cells of the blood vessels around the wound form new capillaries. Furthermore, the proliferation phase will last for three weeks and is called the granulation phase, in this phase the wound looks fresh and shiny red which will then be epithelialized in the form of migration of keratinocytes from the tissues around the epithelium to cover the surface of the wound. And it will be continued to the last phase, namely the remodelling or maturation phase which lasts from a few weeks to two years in the form of restoring normal tissue structure in the skin. In this healing process, it will end with the formation of scar tissue (scar tissue) 50-80% has the same strength as the previous tissue (Wintoko et al., 2020).

The phenomenon that occurs in Indonesia, most nurses themselves believe that the best wound healing is to keep the wound environment dry and use conventional methods to treat wounds. Conventional dressings are wound dressings that use gauze as the main dressing in wound care and this dressing is a passive material with its main function as protection, maintaining warmth and covering the appearance of the wound. In addition, this gauze wrap is also used to protect wounds from trauma, maintain the wound area or for wound compression and the area around the wound and prevent bacterial contamination (Irwan et al., 2022).

Wound care at this time still tends to use conventional materials and tools and techniques or wet dry and does not support the healing of wounds experienced by patients, such as using povidone iodine, 70% alcohol which is still used to clean wounds. From this antiseptic liquid which will cause the wound to dry out and use moist gauze moistened with normal saline to bandage the wound. This causes it to press on the surface of the tissue and must be immediately replaced with the next dry dressing, this will also cause not only healthy tissue to be disturbed but also excessive pain, which even causes black marks. This kind of wound condition must be changed because the principle is not in accordance with the principles of wound care (Lestari, 2020).

There are better techniques by maintaining the humidity of the patient's wound, this modern technique has been carried out in several hospitals by maintaining moisture such as moist wound healing (Lestari, 2020). The wound care method using the principle of moisture balance is more effective compared to the conventional method.

The concept of moisture balance wound care was introduced in 1962 by George D. Winter who conducted research on the effectiveness of dry wound care and moist wound care.

George D. Winter said that moist wound care has a much better effectiveness than dry wound care (Yosefine, 2016).

Moist wound healing is maintaining the isolation of the wound environment that remains moist by wearing a retaining wrap for moisture, occlusions and semi-occlusions so that it can heal wounds and tissue growth can occur naturally, can accelerate healing by 45% and reduce complications of infection and scar tissue growth. This technique has its advantages, namely faster wound healing, good healing quality and can reduce wound care costs, Types of wounds that usually use moist wound healing such as diabetic wounds, postoperative wounds, burns, etc.(Lestari, 2020).

According to Merdekawati & Az (2017), it shows that respondents have not done the principle of moist wound healing correctly, as many as (64.5%) respondents do not have the principle of maintaining and maintaining the wound environment so that it is not considered important. Respondents only have the principle to prevent the wound from running out of fluid and prevent cell death. The development of wound care with this method is still very minimal in Indonesia and is not widely known in the Indonesian medical world (Yosefine, 2016).

According to the Ministry of Health of the Republic of Indonesia in 2013, the prevalence of injuries in Indonesia is 8.2%. South Sulawesi ranks highest for the incidence of injuries at 12.8% and the lowest prevalence of 4.5% occurs in Jambi (Wintoko et al., 2020). The Wound Care Congress (APWCC) noted that until 2012, only 25 out of more than 1000 hospitals in Indonesia, especially on the island of Java, have implemented modern wound care (Rika & Elvi, 2016).

Nurses have a very important role in managing wounds in patients, especially in hospitals where nurses must be responsible for caring for patients. At this time, nurses only focus on replacing wound dressings without paying attention to the patient's humidity status, monitoring tissue conditions and patient nutritional intake which can accelerate tissue growth. To be able to provide good wound care to patients, knowledge and attitude from nurses about wound care are needed. Knowledge is the result of human knowledge and this occurs after sensing a certain object. High knowledge will give rise to a person being more capable and willing to accept responsibility because low knowledge will make wound care poor. Factors that affect nurses' knowledge are from the level of education, sources of information, experience and age of nurses (Yumelti, 2020).

According to Naralia & Ariani, (2018), the results at H. Adam Malik Hospital Medan have been applied the moist wound healing method, 50% of respondents have sufficient

knowledge, but there are still 31.7% of respondents who have insufficient knowledge about wound care using the moist wound healing method.

Meanwhile, according to Septiyanti., (2012) at Eka Hospital, the moist wound healing wound treatment technique has been applied in 2011 but still not 10% can be applied properly and from 54 respondents, 32 respondents were obtained with high knowledge, 17 respondents with medium knowledge and 5 respondents with low knowledge.

Based on the above background, the author is interested in raising the title Overview of nurses' knowledge about moist wound healing at Elisabeth Hospital Medan in 2022.

Naskah ditulis menggunakan spasi 1,5 dengan jenis huruf *times new roman* ukuran 12 pt. Bagian ini menjelaskan tentang latar belakang umum penelitian (secara ringkas dan jelas), *review* terkait topik penelitian yang relevan, uraian tentang kebaruan (*gap analysis*) yang mengandung urgensi dan kebaruan penelitian, serta tujuan penelitian. Latar belakang ditulis **tanpa** penomoran dan atau *pointers*.

## 2. MATERIAL AND METHOD

This study is a descriptive research that aims to describe nurses' knowledge about moist wound healing at Elisabeth Hospital Medan in 2022. The population in this study is all nurses in Pauline and Ignatius' room as many as 31 nurses. Sampling in this study used the Total Sampling Technique, from all nurses in Pauline and Ignatius' room.

The variable in this study is nurses' knowledge about moist wound healing. This research will collect data in the room of St. Ignatius and St. Pauline at Elisabeth Hospital Medan which is located on Haji Misbah Street No. 7, Jati, Medan Maimun, Medan City, North Sumatra. This research was conducted on May 18, 2023 – May 23, 2023.

In this study, validity and reliability tests are no longer carried out, because the researcher uses the previous research instrument (Tarigan, 2021) which has been tested for validity and reliability. An instrument is said to be valid if the Confisient Validity Index reaches a value of 0.80. Based on the results of the Coefficient Validity Index regarding the knowledge questionnaire, it was found that the validity result was 0.84 and it was stated that this research questionnaire was valid and suitable to be given to the respondents. Meanwhile, the reliability test for the knowledge questionnaire using KR (Kuder Richardson) – 21 was obtained that the result was 0.72 and was declared reliable. The researcher conducted an ethical feasibility test from KEPK STIKes Santa Elisabeth Medan with letter number No.: 106/KEPK-SE/PE-DT/V/2023.

### 3. RESULT AND DISCUSSION

The results of the study entitled Overview of Nurses' Knowledge About Wound Care with the Moist Wound Healing Method at Elisabeth Hospital Medan in 2022 were carried out through the collection of respondent data from May 2023 with respondents at Elisabeth Hospital Medan with as many as 31 respondents.

**Table 1. Distribution of Nurse Characteristics Based on Demographic Data at Elisabeth Hospital Medan in 2022 (n=31)**

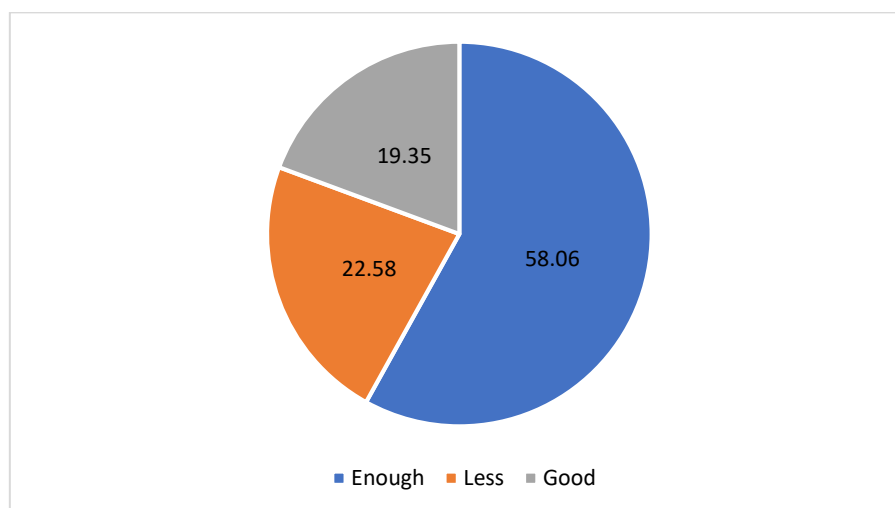
| Characteristic         | Frequency(f) | Percentage(%) |
|------------------------|--------------|---------------|
| <b>Age</b>             |              |               |
| 17-25                  | 7            | 22,6%         |
| 26-35                  | 19           | 61,3%         |
| 36-45                  | 3            | 9,7%          |
| 46-55                  | 2            | 6,5%          |
| <b>Total</b>           | <b>31</b>    | <b>100%</b>   |
| <b>Gender</b>          |              |               |
| Male                   | 1            | 3,2%          |
| Female                 | 30           | 96,8%         |
| <b>Total</b>           | <b>31</b>    | <b>100%</b>   |
| <b>Education Level</b> |              |               |
| S1                     | 18           | 58,1%         |
| D3                     | 13           | 41,9%         |
| <b>Total</b>           | <b>31</b>    | <b>100%</b>   |
| <b>Length of Work</b>  |              |               |
| 0-3 Years              | 10           | 32,3%         |
| 4-9 Years              | 9            | 29%           |
| 10-18 Years            | 9            | 29%           |
| 19-21 Years            | 2            | 6,5%          |
| >22 Years              | 1            | 3,2%          |
| <b>Total</b>           | <b>31</b>    | <b>100%</b>   |

Based on the results of table 1 of the results of the study conducted on nurses at Elisabeth Hospital Medan, it shows that the majority of 31 respondents aged 26-35 years are 19 people (61.3%) and the minority in the age range of 17-25 years is 7 people (22.6%).

**Table 2 Frequency Distribution of Percentage of Nurses' Knowledge About Wound Care with the Moist Wound Healing Method at Elisabeth Hospital Medan in 2022**

| Knowledge    | Frequency (f) | Percentage(%) |
|--------------|---------------|---------------|
| Good         | 6             | 19.4          |
| Moderate     | 18            | 58.1          |
| Less         | 7             | 22.6          |
| <b>Total</b> | <b>31</b>     | <b>100%</b>   |

Based on table 2 above, the majority of nurses have sufficient knowledge as many as 18 nurses (58.2%), and the minority of nurses have good knowledge as many as 6 nurses (19.4%).



**Figure 1. Distribution of Nurses' Knowledge about Wound Care with the Moist Wound Healing Method at Elisabeth Hospital Medan in 2022.**

Based on Figure 1 above, from 31 nurses at Elisabeth Hospital Medan, the results were obtained that the majority of nurses' knowledge in the sufficient category was 18 nurses (58.1%). This is because nurses know about wound care. Nurses at Elisabeth Hospital Medan have sufficient knowledge about the principles of wound care, wound washing techniques, types of fluids for washing wounds, and actions taken according to the condition of the wound. Researchers assume that this is influenced by the age of nurses, the majority of whom are in adulthood, so that the ability to understand and remember is still able to be carried out by nurses. Apart from the age of nurses, sufficient knowledge is influenced by several factors, including about nurse education, the majority of which are at the S1 level, where this is also a consideration of sufficient nurse knowledge. This is in line with Setyaningtyas, (2020) Higher levels of education affect a person's perception to make decisions and act. Education also has

a very important role in determining the quality of human life, with education humans will gain knowledge and information.

Barus et al., (2022) Knowledge is the ability to receive, retain and use information influenced by experience and skills. Most of the knowledge is also obtained from both formal and informational education. Furthermore, the length of work for nurses is from 3-18 years, this also affects the level of knowledge, with the longer the experience in working, especially in wound care, the more expertise is provided in work.

The above is in line with the research of Septiyanti et al., (2017) the longer the experience of working in handling wound care, the more expertise and work skills will be provided in performing wound care. With that long time, nurses' knowledge and skills will continue to be honed with the variety of cases they handle. W. Naralia, (2018) also said that the majority of nurses' knowledge as many as 30 people (50%) have sufficient knowledge about wound care using the moist wound healing method. Furthermore, Sidabutar et al. (2019) said that most nurses have enough knowledge about modern dressing. Furthermore, Sari & Oscar Ari Wiryansyah, (2020) stated that the level of knowledge is sufficiently supported by the socialization of wound care methods so that nurses understand wound care techniques.

The level of knowledge is influenced by information from formal and non-formal education. However, there is still a lack of knowledge of nurses as many as 7 nurses (22.6%) this is due to the lack of understanding of nurses about interventions in determining dressings according to the patient's wounds, wound assessment, autolysis debridement, topical therapy and selection of appropriate dressings based on the type of wound. This is influenced by the lack of work experience possessed by nurses where 10 nurses have a working period of less than 3 years so that they have not been well trained compared to nurses who have more than 3 years of work experience and lack of exposure to information both through formal and non-formal education.

The knowledge of nurses in this study was in the good category as many as 6 nurses (19.4%). This is because nurses have good knowledge about the proper way to wash wounds in wound care, wound care principles, benefits, goals, and wound washing techniques. This is in line with the research of D. Safitri & Munir, (2022) Good knowledge about wound care will result in good wound care ability, but low knowledge will make care of bad wounds as well. Knowledge is influenced by many factors including education, experience, and sources of information. Information sources can be obtained through the trainings carried out. Training is

one of the sources of information that mediates in conveying information, stimulating thoughts and abilities, and increasing knowledge (W. Naralia, 2018).

Yulianto, (2016) Stating that nurses' knowledge about wound care can be influenced by information that has been obtained from both formal and non-formal education which can provide a short-term influence so as to produce a change or increase in knowledge. Some data was obtained in other hospitals, namely the high knowledge of nurses at Eka Hospital Pekanbaru hospital supported by the socialization of diabetic wound care using moist wound healing techniques in 2011. The nurses who have participated in the socialization of moist wound healing. This socialization activity includes the presentation of material on the concept of moist wound healing, both the definition, benefits, indications and contraindications of wound care actions using the concept of moist wound healing (Septiyanti et al., 2017).

The researcher assumes that the nurses' knowledge about wound care using the moist wound healing technique shows that nurses at Elisabeth Hospital Medan are able to understand wound care, understand about techniques for maintaining a moist wound environment, principles, goals for modern wound care and so on. With the higher the knowledge and the more experience a person has about moist wound healing, the better their ability to perform wound care and the need for training to be able to support the level of knowledge of nurses and in its application. However, it was found in this study that nurses have enough knowledge but lack in their application

#### **4. CONCLUSION AND SUGESSTION**

Based on the results of research found by researchers about nurses' knowledge about wound care with the moist wound healing method at Elisabeth Hospital Medan in 2022, it was found that the majority of nurses' knowledge was quite good with as many as 18 nurses (58.1%). These results can be used as additional data for future researchers, especially those related to nurses' knowledge about wound care by using the moist wound healing method in improving hospital quality. The researcher would like to thank the STIKes Santa Elisabeth Medan for allowing research with letter number No. 106/KEPK-SE/PE-DT/V/2023 and has also been ethically qualified from the Health Research Commission of STIKes Santa Elisabeth Medan.

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