



## Nursing Care for the Elderly in Meeting the Needs of Skin Integration in Patients with Diabetic Ulcers in 2023

Pius Kosmas Fau

Sekolah Tinggi Ilmu Kesehatan Nauli Husada Sibolga, Indonesia

### ARTICLE INFO

#### Article history:

Received Aug 30, 2023

Revised Sep 14, 2023

Accepted Sep 30, 2023

#### Keywords:

Nursing care,  
Elderly,  
Skin Integrity,  
Diabetic Ulcer.

### ABSTRACT

Diabetic ulcers are a chronic complication of diabetes mellitus that often occurs in the elderly, characterized by open wounds on the skin due to impaired blood circulation and peripheral neuropathy. This condition can disrupt skin integrity, increase the risk of infection, and worsen the patient's quality of life. Nursing care plays a crucial role in meeting skin integrity needs, including assessment, nursing diagnosis, planning, implementation, and evaluation. This study or case report aims to describe the nursing care process for elderly patients with diabetic ulcers based on the nursing process approach. The method used is a case study with data collection techniques through interviews, observation, physical examination, and documentation studies. The results of nursing care indicate that the main problems encountered are impaired skin integrity related to diabetic ulcers, the risk of infection, and acute pain. Interventions provided include standard wound care, self-care education, blood sugar monitoring, and prevention of further complications. Evaluation shows an improvement in wound condition, a decrease in pain complaints, and an increase in patient and family knowledge in ulcer care. Comprehensive nursing care has been proven to help improve the fulfillment of skin integrity needs and the quality of life of elderly patients with diabetic ulcers.

This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.



### Corresponding Author:

Pius Kosmas Fau,  
Sekolah Tinggi Ilmu Kesehatan Nauli Husada Sibolga  
Jln. Kader Mani No.02 Kelurahan Aek Muara Pinang Sibolga Selatan.  
Email: [PiusFau92@gmail.com](mailto:PiusFau92@gmail.com)

## 1. Introduction

Diabetes mellitus is a degenerative disease whose prevalence continues to increase throughout the world, especially in the elderly. (Fridalni, Minropa, & Sapardi, 2019), (Fridalni et al., 2019) Chronic complications of this disease often have serious consequences, one of which is diabetic ulcers. Diabetic ulcers occur due to impaired peripheral circulation, neuropathy, and infection, which makes wounds difficult to heal. (Cahyaningtyas & Werdiningsih, 2022), (Iqbal Fauzi & Hariyono, 2023) This condition not only reduces the quality of life for the elderly, but also increases the risk of amputation and even death if not treated properly. (Rachmat, 2021), (Erda, Harefa, Yulia, & Yunaspi, 2020).

Skin integrity is a basic human need that is essential for maintaining the body's defenses. In patients with diabetic ulcers, skin integrity is impaired, requiring special attention through comprehensive nursing care. (RAHMADANI, 2023), (Iqbal Fauzi & Hariyono, 2023) The role of nurses is crucial in prevention, wound care, blood sugar control, and education for patients and their families to ensure optimal wound healing. (Iqbal Fauzi & Hariyono, 2023), (Dayaningsih, 2023) The elderly are a

vulnerable group that requires a holistic approach to meeting their health needs. Therefore, planned, systematic, and continuous nursing care is essential to improve health, accelerate wound healing, and prevent further complications.(Yunara et al., nd),(Dwisetyo & Baco, 2022).

Based on this description, the author is interested in compiling nursing care for the elderly with diabetic ulcers in fulfilling the need for skin integrity in 2023 as an effort to improve the quality of nursing services and the quality of life of patients.(Ayuna, Haryani, Khoirini, & Nurbaiti, 2023),(APRIANI & ALHAMD, 2023).

## 2. Methods

This research used a case study design with a descriptive approach. The case study was chosen because the research focused on one elderly patient with a diabetic ulcer to provide an in-depth description of the nursing care provided. The descriptive approach was used to systematically explain the stages of the nursing process, including assessment, establishing a nursing diagnosis, planning, implementation, and evaluation.(Siregar, 2020),(Simamora, 2019).

Data collection was conducted through interviews, direct observation, physical examinations, and medical record documentation studies. The data obtained were analyzed qualitatively by comparing the patient's condition to nursing theory and applicable nursing care standards.(Ritonga, Hasibuan, & Putri, 2023),(Erny Kristiana Santosa, 2022)With this research design, it is hoped that a comprehensive picture of nursing problems and appropriate interventions in fulfilling the needs of skin integrity in elderly people with diabetic ulcers can be obtained.(Arsiati, 2020),(So'emah, 2023).

## 3. Results and Discussion

The study was conducted on a 67-year-old patient with a history of type 2 diabetes mellitus for over 10 years. The patient presented with a plantar wound on his right foot that had been difficult to heal for the past 3 weeks. The wound appeared reddish with a partially necrotic base, moderate exudate, and a characteristic chronic wound odor. The patient also complained of pain when walking and tingling in both feet.

A physical examination revealed signs of peripheral neuropathy, including decreased sensation in both feet, dry skin, and decreased peripheral circulation (a weak dorsalis pedis pulse). The patient's random blood sugar was recorded at 260 mg/dl. The patient appeared anxious and expressed concern that the wound would not heal.

Based on assessment, determined a number of nursing diagnoses, namely: (1) Impaired skin integrity related to the presence of diabetic ulcers, (2) Risk of infection related to chronic wounds, (3) Acute pain related to the inflammatory process in wounds, and (4) Anxiety related to the chronic disease condition experienced.

Nursing interventions provided include wound care using standard aseptic techniques, collaboration in blood sugar control, education on diet and self-care, monitoring for signs of infection, and emotional support for the patient. Furthermore, the family is involved in education about wound care at home.

A 7-day evaluation showed improvement in wound condition, including reduced exudate, the formation of granulation tissue, and a reduction in wound odor. The patient's pain decreased from a 6 to a 3, the patient appeared calmer, and the family demonstrated an increased understanding of wound care. These results demonstrate that comprehensive nursing care can support the fulfillment of skin integrity needs and improve the quality of life of elderly patients with diabetic ulcers.

### 3.1 Discussion

The study results showed that elderly patients with diabetic ulcers experienced impaired skin integrity, increased risk of infection, acute pain, and anxiety. These findings align with the theory that diabetic ulcers are a chronic complication of diabetes mellitus due to impaired peripheral circulation,

neuropathy, and uncontrolled blood sugar levels. This condition results in delayed wound healing, increases the risk of infection, and impacts the patient's quality of life.(Rukmi, 2018),(Sarlis, 2022).

The patient's primary diagnosis was impaired skin integrity. This aligns with Virginia Henderson's concept of basic needs, which states that the skin functions as the body's defense system, and any damage to it will disrupt the fulfillment of basic human needs. Wound care provided using aseptic techniques has been shown to be effective in accelerating wound healing, reducing the risk of infection, and promoting the formation of new granulation tissue. Evaluation results showed improvements in the patient's wound condition, supporting research by Waspadji (2014) which states that good blood glucose control and appropriate wound care can accelerate the healing process of diabetic ulcers.

Another nursing issue identified was the risk of infection. Chronic wounds, such as diabetic ulcers, are ideal media for bacterial growth. Therefore, interventions such as monitoring for signs of infection, personal hygiene education, and collaboration in antibiotic administration are crucial. The study results showed no signs of infection new during care, so that the intervention can be assessed as effective(Irawati, Herawati, Wijono, & Yulia, 2022),(Pancho Kaslam, Djoko Widodo, Sp, & Hindra Irawan Satari, 2021).

Patients also reported reduced pain after wound care and non-pharmacological pain management. This is consistent with previous research showing that a combination of wound care and pain management techniques can reduce pain intensity in patients with diabetic ulcers.(PERTIWI, 2023),(NOPITA, 2022).

Furthermore, patients experience anxiety related to their chronic illness. The nurse's role in providing emotional support and education significantly helps patients feel calmer. These findings align with Jean Watson's theory, which emphasizes the importance of caring in the nurse-patient relationship, where therapeutic communication can enhance the patient's sense of security and comfort.(Simangunsong, 2020),(Simangunsong, 2020).

Overall, the results of this study indicate that comprehensive and holistic nursing care can improve the fulfillment of skin integrity needs, reduce the risk of complications, and improve the quality of life of older adults with diabetic ulcers (PERTIWI,2023).. The success of this nursing care is also greatly influenced by family involvement in the care process, making ongoing education a key factor in preventing future ulcer recurrence.

#### 4. Conclusions

Based on the results of a case study on nursing care for elderly patients with diabetic ulcers in meeting skin integrity needs, it can be concluded that the patient experienced primary problems in the form of impaired skin integrity, risk of infection, acute pain, and anxiety. Nursing interventions provided included wound care using aseptic techniques, monitoring for signs of infection, controlling blood glucose levels, pain management, dietary and self-care education, and emotional support.

The evaluation showed improvement in wound condition, indicated by reduced exudate, the formation of granulation tissue, decreased pain, and increased patient and family knowledge about ulcer care. This demonstrates the effectiveness of nursing care .Comprehension and continuous can improve the fulfillment of skin integrity needs, reduce the risk of complications, and support the quality of life of elderly patients with diabetic ulcers.

#### References

- APRIANI, B., & ALHAMD, B. (2023). Asuhan Keperawatan pada Pasien dengan Luka Bakar di Instalasi Gawat Darurat Rumah Sakit Bhayangkara Makassar. STIK Stella Maris.
- Arsiati, N. M. N. (2020). GAMBARAN ASUHAN KEPERAWATAN PADA LANSIA DIABETES MELLITUS TIPE II+ ULKUS DIABETIKUM DALAM PEMENUHAN KEBUTUHAN INTEGRITAS KULIT/JARINGAN DI UPT KESMAS SUKAWATI 1 GIANYAR TAHUN 2020. Poltekkes Denpasar Jurusan Keperawatan.
- Ayuna, S., Haryani, S., Khoirini, F., & Nurbaiti, N. (2023). Asuhan Keperawatan Stroke Non-Hemoragik dengan implementasi Message Minyak Zaitun pada pasien dengan masalah resiko kerusakan Gangguan Integritas Kulit

- di RSUD Rejang Lebong Tahun 2023. Poltekkes Kemenkes Bengkulu.
- Cahyaningtyas, U., & Werdiningsih, R. (2022). Analisis faktor lama penyembuhan kaki diabetes/ulkus diabetikum pada pasien dm tipe 2. *Jurnal Media Administrasi*, 7(1), 28–39.
- Dayaningsih, D. (2023). Penerapan Edukasi Dengan Media Booklet Dan Audiovisual Untuk Meningkatkan Pengetahuan Keluarga Tentang Perawatan Luka Kaki Diabetes Mellitus Di Wilayah Binaan Puskesmas Sekaran Semarang. *Jurnal Ventilator*, 1(3), 320–331.
- Dwisetyo, B., & Baco, N. H. (2022). Pengantar Keperawatan Gerontik dengan Pendekatan Asuhan Keperawatan. *Yayasan Drestanta Pelita Indonesia*, 1–191.
- Erda, R., Harefa, C. M., Yulia, R., & Yunaspi, D. (2020). Hubungan Dukungan Keluarga Dan Stres Dengan Kualitas Hidup Lansia Diabetes Mellitus Tipe Ii. *Jurnal Keperawatan*, 12(4), 1001–1010.
- Erny Kristiana Santosa, E. (2022). Rancangan Implementasi Technology Acceptance Model (TAM) Dalam Dokumentasi Asuhan Keperawatan. Universitas Karya Husada.
- Fridalni, N., Minropa, A., & Sapardi, V. S. (2019). Pengenalan dini penyakit degeneratif. *Jurnal Abdimas Sainatika*, 1(1), 129–135.
- Iqbal Fauzi, R., & Hariyono, R. (2023). Analisis Asuhan Keperawatan pada Pasien Ulkus Diabetikum dengan Kerusakan Integritas Jaringan melalui Perawatan Luka di RSUD Sidoarjo. Perpustakaan Universitas Bina Sehat.
- Irawati, A. D., Herawati, F., Wijono, H., & Yulia, R. (2022). Optimalisasi Clinical Pathway “Penggunaan Antibiotik” dalam Praktik Kolaborasi Interprofesional Manajemen Perawatan Pasien Bedah Ortopedi di Surabaya. *Media Pharmaceutica Indonesiana*, 4(1), 75–83.
- NOPITA, D. (2022). ASUHAN KEPERAWATAN GANGGUAN KEBUTUHAN NYERI DAN KENYAMANAN (NYERI AKUT) PADA PASIEN ULKUS DIABETIKUM DI RS TK IV 02.07. 04 DENKESYAH LAMPUNG TAHUN 2022. Poltekkes Tanjungkarang.
- Pancho Kaslam, D. R. M., Djoko Widodo, D., Sp, P.-K., & Hindra Irawan Satari, S. A. K. (2021). *Buku Pedoman Pencegahan Pengendalian Infeksi*. Universitas Indonesia Publishing.
- PERTIWI, O. H. (2023). ASUHAN KEPERAWATAN PADA PASIEN POST DEBRIDEMEN ULKUS DIABETIKUM DENGAN MASALAH KEPERAWATAN NYERI AKUT DI RSUD AHMAD YANI KOTA METRO TAHUN 2023. Poltekkes Kemenkes Tanjungkarang.
- Rachmat, N. (2021). *Optimasi Performa Kualitas Hidup Pada Pasien Post Amputasi Transfemoral*. Gracias Logis Kreatif.
- RAHMADANI, D. (2023). ASUHAN KEPERAWATAN POST OPERASI DIABETES MELLITUS DENGAN TINDAKANDEBRIDEMENTDENGAN MASALAH KEPERAWATAN GANGGUAN INTEGRITAS KULIT DI RUMAH SAKIT MARDI WALUYO METRO. Poltekkes Kemenkes Tanjungkarang.
- Ritonga, Z. A., Hasibuan, A. S., & Putri, T. A. (2023). Analisis Kualitatif Pengisian Rekam Medis Rawat Inap Di Rumah Sakit Umum Daerah Kabupaten Aceh Tamiang Tahun 2022. *Jurnal Ilmiah Perekam Dan Informasi Kesehatan Imelda (JIPIKI)*, 8(1), 112–123.
- Rukmi, D. K. (2018). Pengaruh implementasi modern dressing terhadap kualitas hidup pasien ulkus diabetikum. *Jurnal Keperawatan Respati Yogyakarta*, 5, 19–23.
- Saris, S. N. (2022). Hubungan Lama Menderita Terhadap Kualitas Hidup Pada Pasien Ulkus Diabetik. Universitas Islam Sultan Agung Semarang.
- Simamora, N. F. (2019). Sifat Dan Tahap-Tahap Dalam Proses Keperawatan.
- Simangunsong, R. K. (2020). Gambaran Perilaku Caring Perawat Pasien Hemodialisa Tahun 2020. *Skripsi. Program Studi D3 Keperawatan. Sekolah Tinggi Kesehatan Santa Elisabeth Medan <https://Repository1.stikeselisabethmedan.ac.id/s/Home/Item/1256>*.
- Siregar, F. (2020). Proses Keperawatan Dalam Memberikan Asuhan Keperawatan.
- So'emah, E. N. (2023). Asuhan keperawatan pada pasien DMT2 ulkus diabetikum dengan masalah keperawatan gangguan integritas kulit di ruang ixia RSUD Ibnu Sina Gresik. Perpustakaan universitas bina sehat ppni Mojokerto.
- Yunara, Y., Aridamayanti, B. G., Imam, N., Maskur, A., Fernandez, G. V., Sholikhah, D. U., & Ramadhan, S. (n.d.). *Buku Referensi Teori Keperawatan dalam Praktik Pendekatan Holistik pada Lansia dengan Stroke*. Dewa Publishing.