

EXPERIENCE OF DIABETIC FOOT ULCER PATIENTS AFTER  
MINOR AMPUTATION AT DR RUBINI HOSPITAL,  
MEMPAWAH REGENCY, WEST KALIMANTANSri Murthi Lestari<sup>1</sup>, Suriadi<sup>2</sup>, Lidia Hastuti<sup>3</sup>, Supriadi<sup>4</sup>, Wida Kuswida Bhakti<sup>5</sup>

Master of Nursing, ITEKES Muhammadiyah West Kalimantan, Pontianak, Indonesia

\*Corresponding author(s). E-mail(s): [lsri7467@gmail.com](mailto:lsri7467@gmail.com)

## ABSTRACT

**Background :** Diabetes Mellitus is a disease that causes various chronic complications, if left untreated and not managed properly. One of the chronic complications in patients with Diabetes Mellitus is diabetic foot ulcers. Around 15% -25% of patients with Diabetes Mellitus experience diabetic foot ulcers during their lifetime. Various studies have shown that patients with diabetic foot ulcers who undergo minor or major amputations have different experiences. Amputation is defined as surgery to remove all or part of a limb.

**Objective:** This study aims to explore more deeply the experiences of patients with diabetic foot ulcers after minor amputations. **Method:** This study uses a qualitative method with a thematic approach. The selection of informants used a purposive sampling technique with a total of 7 informants with diabetic foot ulcers after minor amputations. The data collected were in the form of recordings. **Conclusion:** The experiences of patients with diabetic foot ulcers after minor amputations vary widely, ranging from lack of information about what diabetes mellitus is, signs of infection and prevention of infection, wound healing processes, wound care and diet management, functional changes, self-concept, coping mechanisms, economic impacts, hopes, self-development processes, obstacles, risks of ineffective self-management and culture.

**Suggestion:** It is better to influence health workers in their role in providing emotional support and improving the quality of health services for post-amputation patients.

**Keyword:** Experience; Diabetic foot ulcer; Post amputation

## INTRODUCTION

Diabetes mellitus (DM) is a global public health problem that has a major impact on the level of public health, as well as the social and economic development of various countries (Aeni, 2021). DM is a disease that causes various chronic complications, if left untreated and not managed properly. One of the chronic complications in DM patients is diabetic foot ulcers. Around 15% -25% of DM patients experience diabetic foot ulcers during their lifetime (Harissya et al., 2022). Indonesia is ranked fourth out of the top ten countries in the world. The prevalence of Diabetes Mellitus diagnosed in 2018, the largest sufferers were in the age category of 55 to 64 years, namely 6.3% and 65 to 74 years, namely 6.03% (Ministry, 2018). The suburban population suffers from diabetes and second is 11.1% in West Kalimantan province (Kawuryan, 2018). According to the results of basic health research in West Kalimantan Province, it was stated that in 2018 the prevalence of diabetes mellitus sufferers was 28,343 cases (Ministry, 2018). Various studies have shown that diabetic foot ulcer patients who undergo minor or major amputations require a higher cost burden, compared to diabetic foot ulcer patients who do not undergo amputations (Apriani, 2023). The longer hospital stay is the cause of this, because in general patients need time to recover from surgery, treat wound complications, and undergo rehabilitation so that As one of the impacts of diabetic foot ulcers, lower limb amputation is reported to be one of the most feared complications and is a disaster

in itself for patients (Rustini et al., 2023). Based on the results of observations, the patient was a minor amputee patient who had undergone a second leg amputation on the IV and V digits, where previously the patient had undergone a leg amputation on the III digits, and experienced complications in the form of infection. The patient experienced a physical response in the form of pain on a scale of 8 due to his infected wound, loss of walking ability and independence in carrying out physical activities. The interview results showed that the patient experienced anxiety, fear, and regret over his current condition. The patient also said that social and economic support was very much needed, in the form of financial support and motivation during treatment. The patient also used a good coping mechanism, where the patient was confident to recover and enthusiastic to follow the instructions given by the nurse and doctor.

## MATERIALS AND METHODS

This study uses a qualitative method that aims to understand a phenomenon in a social context naturally to obtain a deeper picture and information. The selection of informants in this study uses a purposive sampling technique. The Purposive Sampling technique is a method of selecting informants based on the characteristics possessed by the subject, the selection of subjects because these characteristics are in accordance with the objectives of the research to be carried out. This study was conducted on Post-Amputation patients at the Rubini Rubinni General Hospital, the criteria for informants in this study were Post-minor amputation patients, 7 informants, 3 men and 4 women, New patients who were post-amputation for the first time. In qualitative research, interviews are the main data collection method so researchers must pay attention that when conducting interviews, informants should not feel like they are being interrogated by researchers. If this happens, the honesty and openness of the research informants will be disrupted which will later affect the validity of the data obtained. This study also uses a thematic approach, the thematic approach is a process used in processing qualitative information which in general.

## RESULTS

This study used a qualitative method with seven informants (4 women, 3 men), until saturation was reached at the seventh informant. Interviews were conducted at the regional hospital and the client's home if clarification was needed. Each informant was interviewed three times, with a duration of 10–30 minutes as agreed. The first meeting built a relationship of mutual trust. The second meeting focused on the interview, starting with identity and contract validation. The researcher paid attention to verbal and non-verbal responses. If the informant stopped the interview, the researcher reminded them of the contract without forcing them. The third meeting was used to clarify incomplete data. After the data was collected, the researcher terminated the interview and thanked the informant for their participation.

Based on the results of the interviews that have been conducted, it was found that Theme 1: Knowledge, the theme obtained in this study provides a description of the knowledge of someone who experiences minor post-amputation. In this theme there are several sub-themes that illustrate that the informants have different knowledge. Theme 2: Biopsychosocial and spiritual changes, theme 2 obtained in this study provides a description of the biopsychosocial and spiritual changes of someone who experiences minor post-amputation. In this theme there are several sub-themes that illustrate that the informants have physical changes, self-concept, economic impact and spiritual. Theme 3: Transcendence Process Towards Post-Amputation Changes, The theme obtained in this study provides a description of the transcendence process towards changes in someone who experiences minor post-amputation. In this theme there are several sub-themes that illustrate that the informants have experiences of the transcendence process, namely

hope, self-development process and motivation. Theme 4: Self Awareness, Furthermore, the theme obtained in this study provides a description of self-awareness towards several informants who experience minor post-amputation. In this theme there are several sub-themes that illustrate that the informants have experiences of self-awareness. Theme 5: Culture, Culture is one of the factors that informants choose to seek treatment from a shaman or traditional medicine. There is even one shaman who is a community leader. So that people prefer to seek treatment with his help. According to the informant, since ancient times, residents in his village have chosen traditional medicine. Until now, there are still residents in his village who continue to seek traditional medicine.

## DISCUSSION

From the research results, 5 themes were obtained which will be discussed as follows:

### 1. Theme 1: Knowledge

Based on the results of in-depth interviews with participants, it shows that the knowledge of clients as informants varies from being unclear and limited in the information received, but there are some informants who already understand from various sources. Knowledge about Diabetes Mellitus and foot care should be carried out by everyone, especially people with diabetes mellitus. This is because people with diabetes are very susceptible to foot wounds, where the wound healing process also takes a long time. So if everyone has good knowledge in wound care, it will reduce the risk of complications in the feet. Preventive measures for repeated amputations consist of seeking information related to what diabetes mellitus is, signs of infection, prevention of infection, wound healing process, wound care and good diet management. This study is strengthened by the research of These results are in line with research according to (Sudiarti, 2020) that good knowledge influences good foot care practices. This study is also supported by the findings of (Waode et al., 2022) Their research on the level of knowledge showed that out of 47 respondents, 21 respondents (44.7%) had a good level of knowledge, while 26 respondents (55.3%) had a poor level of knowledge. Good knowledge was indicated by the respondents' ability to identify factors that can cause diabetes mellitus (DM), such as frequent consumption of sweet foods, obesity, and lack of rest. However, the respondents demonstrated a misunderstanding of these contributing factors.

### 2. Theme 2: Biopsychosocial and Spiritual Changes

The results of the study showed that the informants felt the changes that occurred to them after the amputation, the results of this study are in line with research according to Sudiarti, 2020, During the interview, participants said that they experienced emotional stress, and expressed it by crying when asked about their feelings after undergoing amputation. The emotional responses experienced by participants in this study were feelings of sadness, surprise, regret, injustice, anger, anxiety, and fear. Anxiety is experienced subjectively and communicated personally by participants. In research according to Putri et al., 2020) this response arises due to the loss of limbs, and realizing the long-term negative impacts that occur in the lives of participants after undergoing amputation. This study also shows that individuals with lower limb amputations have complex problems related to biopsychosocial and spiritual, which can interfere with their well-being.

### 3. Theme 3: the process of transcendence towards post-amputation change

Hope is a desire for something desired to happen in the future. Hope is an active action based on the belief that the future will be better in this study the participants had hope to recover. and experienced several obstacles but did not make the participants give up and support, empathy, concern This study is supported by previous research, namely according to (Kitson et al., 2020) The findings in this study indicate that all

participants have the ability to form self-transcendence from themselves, which is triggered by self-awareness of the problems they experience, and form self-defense against their problems in various ways. For example, by refusing to be considered a disabled person, doing positive activities to divert the sadness they experience.

#### 4. Theme 4: Self Awareness

Self-awareness is characterized by many views or thoughts and the individual's ability to identify various potentials, both abilities and weaknesses, in this study it was obtained data that some participants felt ashamed of their shortcomings, but the participants were able to overcome obstacles after amputation. This research is strengthened in research according to Harissya et al., 2022, found several informants who stated the ability of self-awareness in post-amputation changes, diet management skills, routine drug consumption, challenges in post-amputation obstacles and the risk of ineffective self-management.

#### 5. Theme 5: Culture

Culture is one of the reasons why participants first seek traditional medicine. Because shamans are highly respected and revered by the community. There is even one shaman who is a community figure. So that the community trusts shamans more to carry out treatment. In addition to culture, there is also a tradition that still exists in the participant's environment, namely the tradition of being passed down from generation to generation if someone is sick, they first seek traditional medicine with leaves and spells. According to the participant's statement, since ancient times the residents of their village have believed in mystical things. This study is supported by previous research, according to Fitriani, (2020) Every community or patient who undergoes treatment usually gets information about the treatment from neighbors, friends, family and people around them. Usually if the treatment brings about better changes or has a good impact on the patient, it will spread quickly. So finding out about the treatment is not that difficult because it will spread quickly by word of mouth.

### CONCLUSIONS

Based on the results of the study, it was found that the experiences of clients after minor amputation due to diabetic foot ulcers were very diverse and influenced by various factors. Most informants had limited knowledge about diabetes, signs of infection, and prevention, which caused delays in treatment. They also experienced changes in role and self-concept, emotional stress, and economic impacts, but were able to find peace through a spiritual approach. Hope for recovery and returning to activities emerged thanks to the support of family and those closest to them. Social barriers and community views also influenced self-management, although internal support slightly eased the burden. In addition, the culture of traditional medicine believed by some informants also worsened the condition and caused delays in medical treatment. Further research should be carried out on the influence of health workers in their role in providing emotional support and improving the quality of health services for post-amputation patients, in order to improve the psychological well-being of patients

### Acknowledgement

With great respect, I would like to express my gratitude to the Institut Teknologi dan Kesehatan Muhammadiyah Kalimantan Barat (ITEKES MU KALBAR),



especially Prof. Suriadi, Ph. D, as the main supervisor, and Dr. Lidia Hastuti, M.Kes, is the co supervisor of the Master of Nursing study program. I also appreciate the role of the examining lecturers, namely, Supriadi, Ph. D, as the Rector of ITEKES Muhammadiyah West Kalimantan and examining lecturer 1, and Dr. Wida Kuswida Bhakti, M.Kes, as examining lecturer 2, for their guidance and support in the completion of this research. In addition, I would like to thank hospital Dr. Rubini Mempawah for their contributions in providing data and research facilities.

#### **Funding Source**

This research received no external financial support. All expenses related to the conduct of the study and preparation of the manuscript were personally funded by the author.

#### **Availability of data and materials**

The datasets generated and/or analyzed during the current qualitative study are not publicly available due to the sensitive and confidential nature of the participants' personal experiences and identities, in accordance with ethical research guidelines. However, de-identified excerpts and supporting information relevant to the findings may be available from the corresponding author upon reasonable request and with appropriate ethical approval.

#### **Authors' contributions**

The conception and design of this study were developed by Sri Murthi Lestari and Suriadi. Sri Murthi Lestari was responsible for selecting participants, gathering information and medication data from medical records, conducting data analysis and interpretation, and drafting the initial manuscript. Manuscript preparation and supervision were carried out collaboratively by Sri Murthi Lestari, Suriadi, Lidia Hastuti, Supriadi, and Wida Kuswida Bhakti. All authors reviewed and approved the final version of the manuscript.

#### **Conflict of Interest**

Sri Murthi Lestari, Suriadi, Lidia Hastuti, Supriadi and Wida Kuswida Bhakti declare the study does not overlap with or interfere with any other ongoing research projects or previously conducted studies by other researchers.

#### **REFERENCES**

- Aeni, N. (2021). Pandemi COVID-19: Dampak Kesehatan, Ekonomi, & Sosial. *Jurnal Litbang: Media Informasi Penelitian, Pengembangan Dan IPTEK*, 17(1), 17–34. <https://doi.org/10.33658/jl.v17i1.249>
- Apriani. (2023). Overview of Gestational Diabetes in Pregnant Women at Cihideung Public Health Center. *Doctoral Dissertation, Universitas Bakti Tunas Husada Tasikmalaya*.
- Harissya, Z., MALINI, H., & OKTARINA, E. (2022). Pengalaman Psikologis Pasien Diabetes Melitus Dengan Dfu (Diabetic Foot Ulcer) Pasca Amputasi. *Jurnal Ners*, 7(1), 32–39. <https://doi.org/10.31004/jn.v7i1.9223>
- Kawuryan. (2018). *Social Characteristics of Type 2 Diabetes Mellitus Patients with Diabetic Foot Wounds*.
- Kitson, A., Chirico, A., Gaggioli, A., & Riecke, B. E. (2020). A Review on Research and Evaluation Methods for Investigating Self-Transcendence. *Frontiers in Psychology*, 11(November), 1–27. <https://doi.org/10.3389/fpsyg.2020.547687>

- Ministry Indonesia, M. of H. of the R. of. (2018). *Basic Health Research (Riskesdas) 2018: Main Results*.
- Putri, E., Alini, & Indrawati. (2020). The Relationship between Family Support and Spiritual Needs with the Anxiety Level of Chronic Kidney Failure Patients Undergoing Hemodialysis Therapy at Bangkinang Regional Hospital. *Jurnal Ners Universitas Pahlawan*, 4(2), 47–55. <http://journal.universitaspahlawan.ac.id/index.php/ners>
- Rustini, et al. (n.d.). Intensive Care Services: ICU & OK. In P. S. P. Indonesia (Ed.), 2023.
- Sudiarti, U. &. (2020). The Relationship Between Family Support and Stress Levels of Undergraduate Nursing Students in Writing Their Theses at Pahlawan Tuanku Tambusai University in 2020. *Jurnal Ners*, 4(2), 64–72.
- Waode, A. A., Laode, Y. M., & Sri, R. B. (2020). Hubungan Antara Tingkat Pengetahuan Dengan Gaya Hidup Pada Penderita Diabetes Melitus. *Jurnal Penelitian Perawat Profesional*, 2, 105–114.

