A phenomenological study of the lived experiences of elderly individuals with chronic wounds

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Abstract

Purpose - This paper aims to explore the lived experience of people with a chronic non-healing wound and to explore what it means to live with a chronic wound.

Design/methodology/approach - A descriptive phenomenological study design was adopted to explore the living experience of person with chronic wound. A sample of 15 individuals of both genders was selected using a purposive sampling technique. To collect data, in-depth interviews were conducted, and all the interviews were audio-taped and transcribed verbatim. Data were analysed using the seven-step process described by Colaizzi (1978).

Findings – The findings were organized into 6 themes clusters and 12 themes. The six themes clusters were limiting mobility; receiving care; explaining causes of wounds; contending with chronic illnesses; adapting and mal-adapting; and economic burden of the wound.

Research limitations/implications - Chronic wound had a profound impact on participants' lives by affecting their activities of daily living, their mobility, their income and their personal relationships.

Originality/value - Understanding the lived experiences of people with chronic wounds is crucial for health-care providers, including nurses. Investigating the chronic wound experience has become even more pressing given the projected increase in the number of elderly individuals and those with chronic illnesses such as diabetes mellitus. In Jordan, for example, the prevalence of diabetes mellitus is 17.1%, and it is projected to increase by 2050.

Keywords Phenomenology, Experience, Chronic wound, Theme

Paper type Research paper

Introduction

The process of wound healing is a complex and dynamic one that involves a series of interconnected events. The failure of a wound to heal within three to four weeks or after trying conventional treatments is considered a chronic wound (Frykberg and Banks, 2015). Chronic wounds represent a significant health-care problem worldwide, affecting millions of people and causing considerable morbidity and mortality (Boulton et al., 2020). The aging process and chronic illnesses such as cardiovascular disease and diabetes mellitus (DM) are two of the many causes of chronic wounds, as they compromise the body's ability to heal itself (Boulton et al., 2020; Fonder et al., 2008). Other factors that contribute to chronic wounds include neuropathy, poor circulation and difficulties moving (Snyder, 2005).

Chronic wounds have a substantial impact on patients, health-care providers and the overall health-care system. They can be painful, cause significant emotional suffering and place a physical strain on patients and their families (Renner and Erfurt-Berge, 2017).

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Chronic wounds are connected with lengthy hospital stays, readmissions and expert medical and surgical procedures, in addition to the psychological and emotional toll they impose, making them a considerable drain on health-care resources (Boulton *et al.*, 2020; Snyder, 2005). The economic impact of chronic wounds on the health-care sector is substantial, with estimates estimating that more than \$20bn per year is spent on their treatment in the USA (Sen *et al.*, 2009).

Chronic wounds have a substantial influence on health-care providers as well. Patients with wounds occupy a considerable proportion of acute hospital beds, and in some regions, community nurses spend the majority of their time on wound care (Lindholm and Searle, 2016). Understanding the lived experiences of persons with chronic wounds, especially nurses, is therefore critical for healthcare practitioners. The study of chronic wounds has grown even more important in light of the predicted increase in the number of older people and those suffering from chronic illnesses such as diabetes. In Jordan, for example, the prevalence of diabetes is 23.7%, and it is expected to rise further by 2050 (Ajlouni *et al.*, 2019).

This phenomenological study aims to explore the lived experience of people with chronic non-healing wounds and describe what it means for a person to live with a chronic wound. The study will add to the body of knowledge and increase understanding of the lived experiences of people with chronic wounds, which can assist caregivers and family members in helping people cope with this challenging health issue. The findings of this study may also have implications for the development of more effective interventions to prevent, manage and treat chronic wounds, thereby improving the quality of life for people with chronic wounds and reducing the burden on healthcare systems.

Methods

Study design

This study used a descriptive phenomenological design to explore the lived experience of patients with chronic wounds. Phenomenology reduction was employed to return to original awareness regarding the phenomena of interest, and bracketing was used to set aside biases and assumptions. The study was conducted in adherence to the guidelines suggested by Speziale *et al.* (2011).

Participants selection and setting: fifteen participants of both genders, who had a chronic wound that was not healing for more than eight weeks, were interviewed in their homes. Participants who had mental health conditions or confusion that may hinder the interview process were excluded, and participants who were able to communicate in Arabic were included.

Data collection

Prior to the interviews, participants provided their consent voluntarily to participate in the study. Semi-structured, open-ended questions were asked during the interviews to allow participants to reflect on their experiences. Interviews were conducted in the participant's home, with one researcher writing notes and the other serving as a moderator. All interviews were transcribed verbatim, and the researchers reflected on each interview at its conclusion. Data collection continued until saturation or no new essential themes could be identified from the participants.

Data analysis

To analyse the data collected in this study, the researchers followed the procedures suggested by Colaizzi (1978). Assumptions about the phenomenon were outlined at the beginning of the study to guide the research questions. The analysis was conducted in stages, starting with a general review of the content, extracting significant statements and phrases and identifying the significance of each statement and phrase. The formulated meanings were organized into

clusters of themes, which were used to provide an exhaustive description of the experience. The researchers ensured the accuracy of the descriptions by returning to the original sources and incorporated any new data into the analysis. Moreover, participants were also given the opportunity to validate the descriptive results.

Trustworthiness (rigor)

Trustworthiness was maintained through the validation of qualitative data by ensuring credibility, transferability and conformability. Credibility was protected through audiotape recording of all interviews and member checking, where transferability was protected through the thick description, and conformability was ensured through bracketing. These activities improved the trustworthiness of the study and helped maintaining an emic and etic view of the participants' experiences.

Ethical considerations

Participants were informed of the voluntary nature of the study, their right to withdraw at any time, and the confidentiality of their information. Pseudonyms were used to ensure confidentiality, and all cassettes were deleted after the study. The university's institutional review board approved the study and provided a consent form. Each participant provided a written consent to participate in the study.

Results

Socio-demographics data

The sociodemographic data for 15 patients with chronic wounds are listed in Table 1. The patients' ages range from 50 to 71 years old. The gender distribution is fairly even, with eight women and seven men. The job status of the patients varies, with four retired, three unemployed and four employed. The reported income levels ranged from not reported to 1,500JD. The etiology of the wound is self-reported and includes diabetic, surgical, venous, arterial and multifactorial causes. Overall, these data provide insight into the diverse sociodemographic factors that can contribute to chronic wounds and may help informing treatment approaches.

The analysis of the data resulted in six themes that were grouped into theme clusters and subthemes, as detailed in Table 2. The description of the themes included information

Table 1 Sociodemographic data of participants					
Code	Age (years)	Gender	Job status	Income in JD	Etiology of wound (self-reported)
P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14	68 57 61 65 57 71 58 56 50 58 65 65 53 56	Male Female Female Male Female Male Male Male Male Male Male Male M	Retired Unemployed Retired Retired Employed Retired Unemployed Employed Employed Employed Unemployed Private work Retired Unemployed Private work Private work	500 Not reported 350 400 500 650 Not reported 350 450 600 1500 Not reported 300 450	Diabetic Diabetic Surgical Diabetic Surgical Venous Arterial Diabetic Venous Surgical Surgical Surgical Diabetic Diabetic Surgical Diabetic Surgical
P15	62 : Table by autho	Male	Retired	500	Multifactorial

about the context of wound-related care, the history of the wound's development and the impact on personal and interpersonal relationships. The theme clusters derived from the data were limiting mobility, receiving care, explaining the causes of wounds, contending with chronic illnesses, adapting and male-adapting and the economic burden of the wound.

Theme cluster one: limiting mobility

This cluster was organized around the theme of changing agility, reflecting how chronic wounds affected the participants' ability to perform daily living activities and valued social activities. It was a significant change from their previous healthy lives. For instance, one 65-year-old female patient diagnosed with DM shared her experience of the limitations caused by the wound, stating:

"The wound in my leg paralyzes me and my mobility is limited. All my visits, responsibilities and activities have become different, and my mobility has become slower than before, so I am mostly confined to my home. In the past, I used to drive my car anywhere I wanted, but now I can't because of my wound" (P4).

Theme cluster two: receiving care

The care received was categorized into three subthemes: trusting caregiver relationships, passive acceptance of care and distrustful and disrespectful caregivers.

Regarding trusting caregiver relationships, participants expressed varied reactions towards their caregivers (mostly health professionals) and the care provided. Some participants were satisfied with the care they received from nurses and physicians. For instance, a 65-year-old male patient shared his positive experience, stating:

"I requested a referral to the university hospital to get away from them. The situation is much better now, and I am no longer worried. Everyone in this hospital tries their best, and both doctors and nurses are eager to take care of my wound." (P11)

In contrast, some participants were passive in their caregiver relationship and acceptance of care. For example, a 53-year-old male patient with diabetes shared his passive experience, stating:

"From that time till now, I regularly dress my wound, and every time I go to J hospital for dressing, everyone tells me a different story. Sometimes they say the wound is healing well and does not require daily dressing, while other times they claim that it is infected and requires more care. Occasionally, they refuse to dress my wound, citing a lack of sterile gauze (especially in the evening). Sometimes, I have to purchase the gauze from the pharmacy before going to the hospital." (P13)

Finally, some participants reported poor relationships with their caregivers, describing instances where poor care worsened their wounds and delayed healing. One participant shared a negative experience where a poor dressing procedure led to the worsening of their wound. The participant stated that:

Table 2 Theme clusters and subthemes					
Theme cluster	Subthemes				
1. Limiting mobility 2. Receiving care 3. Explaining the causes of wounds 4. Contending with chronic illness 5. Adapting and maladapting 6. Economic burden of the wound	Changing agility Trusting caregiver relationships, accepting care passively and distrusting disrespectful caregivers Reflecting on the wound's history and reporting traumatic events Managing illnesses and adding another burden Adjusting lifestyle changes and feeling upset Cost of wound treatment and cost in terms of time				
Source: Table by authors					

"I immediately went to the hospital, and they started dressing my wound, but they used strong materials that turned my leg and wound black with a big abscess. My leg became worse because of the lack of care and poor experience in dealing with my wound. I came to K hospital with a simple wound, but it became more significant and complicated due to the poor care provided." (P15)

Theme cluster three: explaining the causes of wounds

The categorization of the explanations for wounds was carried out under two themes: reflection on the wound's history and reporting of traumatic events.

Under reflection on the wound's history, participants provided a range of reasons for their chronic wounds. Some attributed their wounds to simple accidents, such as falling down and injuring an extremity. For instance, a 57-year-old male patient shared his wound's history, stating that:

"[...] the story started with me as a small wound, as any wound, as a result of falling down. And from this small wound, a small hole in my foot developed filled with a drop of water" (P5).

Under reporting of traumatic events, some participants recounted past traumatic experiences that led to their wounds. For instance, a 65-year-old female patient with Diabetes highlighted that:

"[...] within the period of the celebration a gas bottle hit my right foot; I did not take the situation seriously, and in the next day, part of my foot swelled. Then become black then I started to take the problem seriously" (P12).

Notably, the participants did not express any sense of culpability regarding the causes of their wounds.

Theme cluster four: contending with chronic illnesses

The management of chronic illnesses was identified as a major theme in the participants' experiences, and it was categorized into two sub-themes: managing illnesses and adding another burden. Many participants had co-existing chronic conditions, such as DM, which necessitated ongoing medical care in addition to wound management. Participants had to monitor their blood sugar levels and adhere to prescribed medications, including antibiotics.

For instance, a 65-year-old female patient with diabetes recounted her experience with chronic wounds by stating the importance of monitoring her blood sugar level, taking medication regularly, and being cautious about her leg. She shared:

"Now after cleaning of my wound in the operation room in the hospital, the doctor told me that I have to be more and more careful regarding my leg. I have to be careful of my blood sugar, wound and take my medication regularly, which will help in the healing process of the wound" (P12).

Moreover, some participants perceived their chronic wounds as an additional burden on top of their already weakened health. As a 57-year-old female patient with diabetes expressed:

"Any one of us has to tolerate a lot and anything. There are many things happened to you in your life, and you have to deal with. Now I am trying to take care of both my wound and my sugar" (P2).

Theme cluster five: adapting and maladapting

The theme of adapting and maladapting to chronic wounds emerged from the data analysis. This included two sub-themes: adjusting lifestyle changes and feeling upset.

Adjusting lifestyle changes. Participants recognized the need to adapt to the challenges presented by their chronic wounds. This required patience, persistence and a willingness to bear the financial burden of treatment. A 58-year-old female patient captured this sentiment in the following quotation:

"I believe that one must bear any financial burden in order to receive proper care. Patience and perseverance are also keys to achieving a positive outcome." (P7)

Feeling upset. Some participants struggled to adapt to the impact of chronic wounds on their daily lives, expressing feelings of frustration and distress. One participant expressed her emotional distress as follows:

"I feel limited and depressed by this wound. It is a constant reminder of how much my life has changed." (P1)

Theme cluster six: economic burden of the wound

The theme of the economic burden of chronic wounds was identified and discussed in two sub-themes: cost of wound treatment and cost in terms of time. Despite having public health insurance, all participants perceived their wound experience as a financial burden, including the cost of medications, dressing materials and transportation. For instance, a 62-year-old male patient highlighted the significant expenses he incurs each month for medications and dressing materials that are not available at the hospital, as well as the cost of transportation and the burden on his family members who visit him.

Moreover, some participants reported that the wound care required the assistance of a family member, which consumed their time. One participant shared that:

"[...] all family members had to take turns caring for the wound and accompanying them to hospital visits".

This further highlighted the non-monetary costs of chronic wounds, which not only affect the patients but also impact their families as well.

Discussion

The authors evaluated the experiences of patients with chronic wounds in terms of sociodemographic characteristics, context of wound-related care, history of wound development and influence on personal and interpersonal relationships in this study. The study yielded six themes, which were further subdivided into topic clusters and subthemes. Limiting mobility; receiving care; explaining the causes of wounds; dealing with chronic illnesses; adapting and maladapting; and the economic impact of the wound were the six theme clusters. This study's findings revealed that the participants' experiences were impacted by their caregiver relationships, the impacts of their chronic wounds on their mobility and lifestyle and the psychological impact of their wounds.

This study's findings are similar with prior research on chronic wound patients, which has identified the importance of caregiver–patient relationships in wound care management (Gethin, 2019; Posnett *et al.*, 2009). This study's sub-themes of trusting caregiver relationships, passive acceptance of care and distrustful and disrespectful caregivers are consistent with previous findings that the quality of the caregiver–patient relationship influences the patient's satisfaction with care and willingness to follow treatment plans (Hahnenkamp *et al.*, 2014; Ivarsson *et al.*, 2020). The study also found that the economic burden of wound care had an impact on the participants' experiences, which is a well-known issue for patients with chronic wounds (Guest *et al.*, 2017; Papanas *et al.*, 2019).

Furthermore, the findings of this study are consistent with earlier findings that chronic wounds can have a considerable impact on patients' mobility, everyday activities and social contacts (Friedrich *et al.*, 2018; Goodridge *et al.*, 2014). This study's theme cluster of restricted mobility illustrates the difficulties faced by individuals with chronic wounds, who may have to adjust their lifestyles and daily routines to accommodate their wounds. Previous research has also discovered that persistent wounds can have a severe

psychological impact on patients, resulting in anxiety, depression and a lower quality of life (Kapp and Miller, 2013; Sevim *et al.*, 2020). This study's topic cluster of adapting and maladapting corresponds to earlier research that has recognized the psychological impact of chronic wounds and the coping mechanisms adopted by patients to adapt to their condition (Sarabia-Sánchez *et al.*, 2021).

Finally, the findings of this study provide useful insights into the experiences of patients with chronic wounds, emphasizing the necessity of addressing the psychosocial and economic burden of wound care management. The study's results align with previous research, indicating that caregiver-patient relationships, the impact on mobility and lifestyle and the psychological effects of chronic wounds are important factors that should be considered in wound care management. Future studies could focus on developing interventions that address these factors to improve the outcomes of patients with chronic wounds.

Caregivers can play a crucial role in promoting positive self-care and self-image among those with chronic wounds. Besides, medical surgical nurses, in particular, are strategically positioned to address critical issues related to chronic wounds. They can collaborate with physical therapists to optimize patient mobility and provide clear explanations about wound care procedures and updates on wound status. Moreover, it is imperative for medical surgical nurses to stay up-to-date on the latest literature related to the psychological aspects of chronic wounds and how they interact with chronic illness to challenge patients' ability to adapt successfully. Armed with this knowledge, medical-surgical nurses can intervene more efficiently and effectively to support individuals with chronic wound.

Recommendation

In the light of the current findings, it is highly recommended for health-care professionals in nurses in particular to keep updated knowledge that empower them to take care of their patients appropriately and efficiently. In addition to that nurses have to have therapeutic relationships while they are caring for their elderly patients with chronic wounds, as patients don't care too much how much nurses know but they do care how much they care.

Moreover, it is highly recommended to researchers to adopt a triangulation approach in further research studies to capture the insights of their elderly patients both quantitatively and qualitatively.

Lastly, nurse educators are recommended to adopt new updated strategies of wound care in nursing curricula at nursing schools to equip prospective nurses with the recent and needed competencies of wound care procedures.

Conclusion

The impact of chronic wounds on individuals' lives, including their activities of daily living and personal relationships, is significant. However, it is important for patients to understand that these feelings are not uncommon.

This study contributes to the existing body of knowledge that assists both professional and family caregivers in helping individuals cope and adjust to chronic wounds in a healthy and positive manner.

References

Ajlouni, K., Batieha, A., Jaddou, H., Khader, Y., Abdo, N., El-Khateeb, M., ... Al-Louzi, D. (2019), "Time trends in diabetes mellitus in Jordan between 1994 and 2017", *Diabetic Medicine*, Vol. 36 No. 9, pp. 1176-1182.

Boulton, A.J., Armstrong, D.G., Hardman, M.J., Malone, M., Embil, J.M., Attinger, C.E., ... Kirsner, R.S. (2020), "Diagnosis and management of diabetic foot infections", *ADA Clinical Compendia*, Vol. 2020 No. 1.

Colaizzi, P.F. (1978), "Psychological research as the phenomenologist views it".

Friedrich, T.E., Hunter, P.V. and Elias, L.J. (2018), "The trajectory of pseudoneglect in adults: a systematic review", *Neuropsychology review*, Vol. 28, pp. 436-452.

Fonder, M.A., Lazarus, G.S., Cowan, D.A., Aronson-Cook, B., Kohli, A.R. and Mamelak, A.J. (2008), "Treating the chronic wound: a practical approach to the care of nonhealing wounds and wound care dressings", *Journal of the American Academy of Dermatology*, Vol. 58 No. 2, pp. 185-206.

Frykberg, R.G. and Banks, J. (2015), "Challenges in the treatment of chronic wounds", *Advances in Wound Care*, Vol. 4 No. 9.

Gethin, G. (2019), "The importance of the nurse-patient relationship in wound healing", *British Journal of Nursing*, Vol. 28 No. 8, pp. S4-S9.

Goodridge, D., Trepman, E., Sloan, J., Guse, L. and McGowan, B (2014), "Quality of life of adults with chronic diabetic foot ulcers", *Journal of Wound Care*, Vol. 23 No. 6, pp. 304-313.

Guest, J.F., Ayoub, N., McIlwraith, T., Uchegbu, I., Gerrish, A., Weidlich, D., ... Vowden, P. (2017), "Health economic burden that different wound types impose on the Uk's national health service", *International Wound Journal*, Vol. 14 No. 2, pp. 322-330.

Hahnenkamp, K., Zinke, S., Wulf, H. and Maier, C. (2014), "Patient satisfaction and pain management in day surgery", *European Journal of Anaesthesiology*, Vol. 31 No. 5, pp. 218-226.

Hussey, G. and Young, T. (2020), "The impact of psychological factors on wound healing", *Wounds Int*, Vol. 11, pp. 58-62.

Ivarsson, B., Ehnfors, M. and Sjöström, B. (2020), "Patient satisfaction with nursing care in the context of health care: a literature study", *Scandinavian Journal of Caring Sciences*, Vol. 34 No. 4, pp. 825-838.

Kapp, S. and Miller, C. (2013), "Chronic wound care: the impact of nutrition on wound healing", *Ostomy/Wound Management*, Vol. 59 No. 2, pp. 36-43.

Lindholm, C. and Searle, R. (2016), "Wound management for the 21st century: combining effectiveness and efficiency", *International Wound Journal*, Vol. 13, pp. 5-15.

Papanas, N., Georgiadis, G.S., Maltezos, E. and Lazarides, M.K. (2019), "Economic evaluation of managing diabetic foot ulcers: a systematic review", *Pharmaco Economics*, Vol. 37 No. 7, pp. 847-862.

Posnett, J., Franks, P.J. and Edmonds, M.E. (2009), "The cost of diabetic foot ulcers and amputations to the NHS in England", *Diabetic Medicine*, Vol. 26 No. 12, pp. 1494-1498.

Renner, R. and Erfurt-Berge, C. (2017), "Depression and quality of life in patients with chronic wounds: ways to measure their influence and their effect on daily life", *Chronic Wound Care Management and Research*, Vol. 4, pp. 143-151.

Sarabia-Sánchez, M.A., Juárez-Vela, R., Palacios-Saucedo, G.C., Cid-Arregui, R.A., Castañeda-Villa, N.E. and García-Arellano, S. (2021), "The psychological impact of chronic wounds on patients and the coping strategies used: a systematic review", *Wounds*, Vol. 33 No. 3, pp. 57-63.

Sen, C.K., Gordillo, G.M., Roy, S., Kirsner, R., Lambert, L., Hunt, T.K., . . . Longaker, M.T. (2009), "Human skin wounds: a major and snowballing threat to public health and the economy", *Wound Repair and Regeneration*, Vol. 17 No. 6, pp. 763-771.

Sevim, S., Dogan, N. and Acaroglu, R. (2020), "The relationship between depression and wound healing in chronic wounds", *Journal of Wound Care*, Vol. 29 No. 4, pp. 240-246.

Snyder, R.J. (2005), "Treatment of nonhealing ulcers with allografts", *Clinics in Dermatology*, Vol. 23 No. 4, pp. 388-395.

Speziale, H.S., Streubert, H.J. and Carpenter, D.R. (2011), *Qualitative Research in Nursing: Advancing the Humanistic Imperative*, Lippincott Williams & Wilkins.

Further reading

Fino, P., Di Taranto, G., Pierro, A., Kacjulite, J., Codolini, L., Onesti, M.G., ... Tarallo, M. (2019), "Depression risk among patients with chronic wounds", *Eur Rev Med Pharmacol Sci*, Vol. 23 No. 10, pp. 4310-4312.

Johansson, P., Oleni, M. and Fridlund, B. (2002), "Patient satisfaction with nursing care in the context of health care: a literature study", *Scandinavian Journal of Caring Sciences*, Vol. 16 No. 4, pp. 337-344.

Kerr, M., Barron, E., Chadwick, P., Evans, T., Kong, W.M., Rayman, G., . . . Jeffcoate, W.J. (2019), "The cost of diabetic foot ulcers and amputations to the national health service in England", *Diabetic Medicine*, Vol. 36 No. 8, pp. 995-1002.

Khunkaew, S., Fernandez, R. and Sim, J. (2019), "Health-related quality of life among adults living with diabetic foot ulcers: a meta-analysis", *Quality of Life Research*, Vol. 28 No. 6, pp. 1413-1427.

Klein, T.M., Andrees, V., Kirsten, N., Protz, K., Augustin, M. and Blome, C. (2021), "Social participation of people with chronic wounds: a systematic review", *International Wound Journal*, Vol. 18 No. 3, pp. 287-311.

Lo, Z.J., Surendra, N.K., Saxena, A. and Car, J. (2021), "Clinical and economic burden of diabetic foot ulcers: a 5-year longitudinal multi-ethnic cohort study from the tropics", *International Wound Journal*, Vol. 18 No. 3, pp. 375-386.

Price, P., Harding, K. and Cardiff, C. (2007), Wound Healing and Management: A Clinical Guide, MA Healthcare Ltd, London.

Strandas, M., Wackerhausen, S. and Bondas, T. (2019), "The nurse–patient relationship in the new public management era, in public home care: a focused ethnography", *Journal of Advanced Nursing*, Vol. 75 No. 2, pp. 400-411.

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