



The Meaning of Chronic Wounds in Patients in Long Term Care

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The Meaning of Chronic Wounds in Patients in Long Term Care

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Abstract

Background: Chronic wounds result in significant challenges that can affect quality of life (QoL). Though, there is limited research to describe the lived experience and meaning ascribed to living with a chronic wound in the older adult population using a qualitative approach.

Ultimately, by examining residents' lived experiences living with a wound in a skilled nursing facility, QoL in patients can be more fully characterized and clinical outcomes maximized.

Purpose: The purpose of this study was to understand older adults' lived experience with a chronic wound in a long-term care facility. **Method:** Adults aged 65 or older with chronic wounds were recruited from a long-term care unit and participated in individual semi-structured interviews. The researcher utilized Colaizzi's seven-step coding process to analyze the interview data and develop overarching themes. **Results:** Seven participants completed the study, including five females and two males with chronic wounds. Participant ages ranged from 65 to 92 years old. Wound etiology varied with three pressure injuries, two post-operative, one injury, and one secondary to chronic venous insufficiency. Four major themes and nine sub-themes emerged which help to characterize the participants' lived experiences. The four major themes were: lack of independence, confinement/limitations, interruptions, and emotional sequelae. **Conclusion:** Chronic wounds contribute to feelings of confinement and social isolation for residents in long-term care facilities. Improved mobility and independence may also increase their chances of returning home, subsequently decreasing feelings of confinement, and resulting in fewer interruptions in daily activities.

Keywords: chronic wounds, long-term care facility, older adult

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The Meaning of Chronic Wounds in Patients in Long Term Care

Chronic wounds result in significant challenges for patients, caregivers, and healthcare facilities (Hurd, 2013). The prevalence of chronic wounds is estimated to be at least 6.5 million people in the United States, and associated costs exceed \$25 billion annually (Gould and Fulton, 2016; Sen et al., 2009). Chronic wounds result in significant issues that affect quality of life (QoL), including pain, discharge, odor, and limited mobility (Augustin et al., 2017). Patients also may experience sleep disruption, body image changes, increased social isolation, and psychological disorders (Ren et al., 2020). Negative psychosocial and physical health issues can result from chronic wounds, including stress, anxiety, lack of sleep, isolation, and body image perception (Hopman et al., 2014).

According to Jaul (2010), there are many factors that can contribute to the development of a chronic wound, including skin changes that occur during the natural aging process, changes in the infrastructure of the skin resulting from chronic disease states, and malnutrition impacting the skin and immune system. Despite these factors, the effects of immobility contribute significantly to the outcome of the wound and increase the risk of wound development due to increased shearing forces, pressure, friction, and increased vulnerability of the skin when someone is immobile (Jaul, 2010). Gould and Fulton (2016) support the findings of risk that Jaul (2010) established, including the effects of aging on the skin and the effects of comorbidities increasing the older adult's risk for a wound.

A wound's ability to heal is not only affected by the physical environment; a patient's poor psychological status has been found to delay healing (Walburn et al., 2017). How older adults experience and feel about the wound healing process is also important, as the unanticipated clinical course of a chronic wound can result in feelings of frustration and

emotional upset (Jaul, 2010). The development of a wound in the older adult population is multifactorial and includes both intrinsic and extrinsic factors (Gould & Fulton, 2016). Existing research has established that psychological stress negatively affects wound healing and should also be addressed (Robinson et al., 2017).

There is limited research to describe the lived experience and meaning ascribed to living with a chronic wound in the older adult population. Existing studies in the literature examine this from the perspective of community-dwelling older adults; some focus only on lower extremity wounds. Other studies simply categorize the deficits rather than attempt to understand the patients' lived experiences. There appear to be no qualitative studies focusing specifically on the chronic wound experience from the view of those residing in long-term care or skilled nursing facilities. Research is needed in long-term care to fully understand older adults' experiences living with chronic wounds in this setting.

Problem Statement

Chronic wounds place a considerable burden on the patients who experience them and take a significant financial toll on the United States healthcare system (Olsson et al., 2019). Although previous research has focused on the efficacy of treatment interventions, wound dressings, and the wound's etiological presentation (Tollow, 2018), there is a lack of research addressing the qualitative meaning of living with a chronic wound for older adults, specifically in the long-term care setting.

Purpose Statement

The purpose of this phenomenological study was to understand older adults' lived experience with a chronic wound in a skilled nursing facility.

Research Question

This study addressed the following primary research question and sub-questions:

- What meaning do individuals in the older adult population living in skilled nursing facilities ascribe to living with a chronic wound?
 - How do older adults living with a chronic wound in a skilled nursing facility characterize their day-to-day functioning?
 - How do older adults living with a chronic wound in a skilled nursing facility perceive their quality of life?

Significance of the Study

This study's primary significance was to give residents the ability to speak to their experiences while living with a chronic wound. Understanding and validating the residents' experiences is important in wound healing (Dudfield, 2019). Ultimately, by examining residents' lived experiences in the skilled nursing facility, QoL in residents can be more fully characterized and, in turn, clinical outcomes maximized. Understanding the meaning residents ascribe to living with a chronic wound in a long-term care setting can help tailor interventions, treatments, and clinical approaches to ensure positive resident experiences, compassionate care, and improve outcomes.

Definition of Terms

- Chronic wound: Wounds that fail to heal within 4-8 weeks (van Rijswijk & Polansky, 1994)
- Older adult: An individual 65 years of age and older (Hurd, 2013)
- Skilled nursing facility/long term care facility: A group of institutions ranging from those that provide rehabilitation to those providing chronic care to the sick and elderly (Donelli & Vuotto, 2014)

- Quality of life (QoL): A general perception of wellbeing, happiness, and satisfaction by an individual (Woo et al., 2018)

Literature Review

Chronic wounds are a significant contributor to health care costs and have devastating effects on patients (Olsson et al., 2019). Wound care prevalence is a multibillion-dollar, worldwide issue affecting 6.5 million people in the United States alone (Sen et al., 2009). Two percent of people in the United States are living with a chronic wound (Jung et al., 2016).

Lower Extremity Wounds

Existing research on the effects of chronic wounds varies between wound type, resident demographics, and study population. However, most studies have only focused on lower extremity wounds (Cunha et al., 2017; Hopman et al., 2014; Roaldsen et al., 2011; Stewart et al., 2018; Tollow, 2018). Lower extremity wounds secondary to chronic venous insufficiency reach their peak prevalence between 60-80 years of age, making them a considerable issue for older adults (Stechmiller et al., 2019). Quality of life in those with chronic lower extremity wounds has also been a focus in the literature. A longitudinal study by Hopman et al. (2016) assessed chronic lower extremity wounds in community-dwelling older adults. They attempted to look at health-related QoL factors to aid in wound healing, including pain using the McGill pain scale, autonomy using the EuroQol 5-Dimension Instrument (EQ-5D), and QoL using the 12-Item Short Form Survey (SF-12). They determined chronic lower extremity wounds resulted in negative health-related QoL including impaired sleep, pain, limitations with mobility, and social isolation. Factors related to improved QoL included independence with mobility, decreased difficulty with activities of daily living, and fewer baseline comorbidities (Hopman et al., 2016).

Similarly, a study by Harlin et al. (2009) assessed QoL in community-dwelling individuals with chronic lower extremity wounds through the use of the health-related quality of life (HRQoL) tool. Patients reported feelings of overall frustration and difficulty with sleep, mobility, and anxiety – suggesting that chronic lower extremity wounds result in negative effects on quality of life (Harlin et al., 2009). It is apparent that QoL is negatively impacted in these patient populations, but what does that mean for the QoL and lived experience of those patients living with other etiologies and residing in long-term care facilities?

Many older adults have multiple medical comorbidities, medical complexities, and wounds from varying etiologies. Narrowing the research to only focus on lower extremity wounds can cause a deficit in the research regarding chronic wounds. In the skilled nursing population, a variety of wound types lead to severe debility, increased care, and burden to staff and families (White-Chu et al., 2011). For this reason, it is important to assess a variety of wound types in the older adult population in long-term care facilities; however, research on this is limited.

Community-dwelling older adults face different challenges to QoL than older adults living in skilled nursing facilities; however, the literature on lower extremity wounds has primarily focused on the community-dwelling older adult population and not those older adults residing in long-term care facilities. In one example, Hopman et al. (2014) examined associations between sociodemographic, clinical factors, and QoL in a group of community-dwelling people with a mean age of 65+/- 17 years. Results of the study found that those patients with chronic leg wounds demonstrated impaired QoL secondary to pain, impaired mobility, poor sleep, depression, limited work capacity, and social isolation. Similarly, the mixed methods approach by Cunha et al. (2017) also only included participants in a community setting, 28.4% of whom

were still working. Although the authors of these studies looked at the clinical limitations and QoL changes within this population, they failed to address the lived meaning and experiences the patient may have felt. They also narrowed their population of study to individuals in the community-dwelling population, potentially missing additional physical and psychological factors those living within a long-term care facility may experience. Understanding the lived experience of older adults in the skilled nursing environment with various chronic wounds can allow for improved outcomes, increased patient satisfaction, and a more patient-specific, tailored care plan.

Wounds and the Older Adult

Wounds, including arterial, venous, neuropathic, and pressure ulcers, account for serious morbidity, especially in older adults (Beitz & Goldberg, 2005). Older adults are at an increased risk for chronic wounds secondary to increased exposure to pathological factors that develop due to the aging process (Jaul, 2010). The risk of developing a pressure ulcer increases significantly for those over 70; most pressure ulcers (70%) occur in those over 70 years of age (Jaul, 2010). This increase could be attributed to the increased vulnerability to chronic disease older adults face with age as well as challenges resulting from the normal aging process (Jaul, 2010).

As the population ages and the age of mortality increases, so does the resource burden associated with managing wounds (Sprakes & Tyrer, 2010; Hopman et al., 2014). People are living longer with wounds that are slow or do not heal, which increases demand on healthcare resources, including staff and expenses to care for them (Gould and Fulton, 2016; Jaul, 2010). Both the financial burden and the physical impairments associated with chronic wounds make addressing this a priority in our health care system.

Categorizing Deficits

Several authors have categorized physical consequences and resulting psychosocial implications related to chronic wounds in the older adult population. Stechmiller et al. (2019) categorically analyzed their results and found most patients with chronic wounds experience pain, fatigue, leg swelling, and sleep disturbances. In a mixed-method study by Cunha et al. (2017), researchers attempted to look at how participants' lives changed after developing a chronic leg wound. They looked at older adults with a mean age of 76 years old and assessed QoL, the patient's comprehension of the disease, and the patient's related psychosocial feelings resulting from chronic leg ulcers and resulting life changes. The study determined life changes resulting from chronic leg ulcers included sadness, anger, depression, and loneliness in more than 30% of the participants. (Cunha et al., 2017). Although consolidating limitations and challenges into categorical groups may provide an understanding of the patient's physical and psychosocial deficits, it does not allow us to truly understand how the patient is experiencing these challenges. Simply putting their deficits into a category does not help us understand how they are living with this chronic wound, how this lived experience impacts them, and how it can help us adapt our interventions and aid in wound healing.

Qualitative Research Gap

Qualitative research focusing on wound care is particularly sparse, especially studies examining the older adult population. Specifically, when looking at older adults in skilled nursing facilities, there is a gap in the literature addressing the lived experience of older adults who are dealing with chronic wounds. Qualitative literature focusing on wound care is mainly centered on the physical effects on the patient, with a lack of review of the experience the patient feels and the psychological impact the wound may have on the patient as a whole (Tollow, 2018). Only one qualitative study within the last 15 years focused on individuals in the long-term

care setting living with chronic wounds. Specifically, Beitz & Goldberg (2005) assessed older adults' lived experience living with a chronic wound in either assisted living communities or long-term care facilities. The researchers assessed 16 participants, both men, and women, with various wound types, including arterial, venous, diabetic, pressure, and unknown etiologies. Beitz & Goldberg (2005) found clusters of themes that can impact the patient's QoL, including living with pain, both pain from wound treatments and from the wound itself, as well as the effects of losing mobility and changing agility (Beitz & Goldberg, 2005). Participants also expressed concerns surrounding receiving care, including trusting the caregiver, accepting care, and disliking wound-related care (Beitz & Goldberg, 2005). The authors also revealed findings related to living and aging, specifically, regarding the loss of a spouse, diminishing abilities, and reflecting on their life; whether it was a positive and healthy upbringing, or they were underprivileged growing up (Beitz & Goldberg, 2005).

Other themes included experiencing altered sleeping habits from pain and discomfort, changing eating patterns due to diminished appetite, and needing to eat well to promote wound healing. Some participants reflected on the cause of their wound, including reflection on chronic illnesses related to wounds or feeling guilty for sustaining an injury (Beitz & Goldberg, 2005). Other themes included feeling frustrated with the wound healing and treatment for wound healing, having to adjust and tolerate constant treatment interventions, all while attempting to stay positive and hopeful for improvements in the wound (Beitz & Goldberg, 2005). This study provides a basis for further research on a patient's lived experience with a chronic wound in skilled nursing facilities. It exposes the need to distinguish how the patient perceives these deficits and how they view themselves since the wound's development. The role the wound has played in the patient's lived experience and what this means to them also needs to be assessed.

The skilled nursing facility setting is an important focus for research as residents in skilled nursing facilities are the most vulnerable to chronic wounds (Spraker & Tyrer, 2010). Although the Beitz and Goldberg study included some participants from the long-term care population, it was not fully specific to this patient population.

The Impact of Research in Long Term Care Facilities

The lack of research on residents with chronic wounds within the skilled nursing setting is apparent. Skilled nursing facilities are a common destination when patients with chronic wounds are discharged from an acute care hospital. More than three million people enter a skilled nursing facility in the United States directly from an acute care hospital each year (Sorkin et al., 2018). The Centers for Medicare and Medicaid Services (CMS) is the governing body regulating skilled nursing facilities; CMS ensures quality standards, establishes guidelines, and monitors outcomes (Levine et al., 2005). Although research on the lived experience with chronic wounds is lacking in this setting, skilled nursing facilities are closely monitored by CMS. Related to wounds, CMS specifically monitors pressure injuries in long-term care settings, including prevention, risk assessment, and intervention from an interdisciplinary view (Levine et al., 2005). Although acquired pressure ulcers are a focus of CMS, chronic wounds of varying diagnoses are prevalent and result in a burden to the healthcare system in skilled nursing facilities (White-Chu et al., 2011). Research efforts must be focused on this setting as the burden of chronic wounds will continue to rise with the aging population and earlier development of chronic illnesses (Olsson et al., 2018).

It is evident that there is a lack of an in-depth understanding of residents' perspectives on their experience living with a chronic wound in the long-term care setting. The residents' perspectives, lived experiences, and the meaning the wound has on them in all realms are

important pieces in the overall care for these residents. Two widely utilized wound QoL assessment tools are the Wound QoL and the PU-QoL tool. These tools are designed to identify QoL issues in patients with chronic wounds. They assess some similar categories that Beitz and Goldberg (2005) identified in their research. For example, the Wound QoL tool asks the patient to identify from “not at all” to “very much” how they have been impacted in the last seven days in the areas of pain, odor, drainage, sleep, the burden to others, happiness, worry, fear, mobility, activities of daily living, and a financial burden (Augustin et al., 2017). Similarly, the PU-QoL tool attempts to capture the patient’s health assessment within the past seven days based on how much bother the wound has been for them from “not at all” to “a lot” (Gorecki et al., 2013). It assesses items such as pain, drainage, odor, sleep, mobility, activities of daily living, appearance, and social participation (Gorecki et al., 2013). Both tools attempt to quantify the impact a chronic wound has on a person’s QoL, but they have limitations. They do not identify setting-specific QoL implications, the meaning these experiences have on the patient, and how to incorporate these experiences into wound management and treatment.

Acknowledging and understanding how chronic wounds affect QoL can eventually lead to the discovery of more holistic interventions that improve healing outcomes. Research has demonstrated how a chronic wound can physically affect a patient; however, what does this mean for their self-image, perception of care, and life experience? These questions remain to be answered in the literature.

Method

Study Design

This qualitative study incorporated a phenomenological design to examine the meaning of living with chronic wounds for older adults living in a long-term care setting. A phenomenological approach allowed the researcher to identify the essence of the human experience about a phenomenon described by those that have experienced it (Creswell, 2018). Specifically, an existential phenomenology was utilized to determine the nature of the reality that encompassed the lived experience of those with chronic wounds (Phillips-Pula et al., 2011).

Participants

Participants in this study included older adults with chronic wounds residing in a long-term care facility. Inclusion criteria for this study consisted of individuals who were 65 years of age or older, as this has been identified as an at-risk population in long-term care (Sprakes, 2010). Participants must have had a wound of any etiology for more than 4 weeks, which denotes wound chronicity (Beitz & Goldberg, 2005, van Rijswijk & Polansky, 1994). Participants must have also been their own Healthcare Power of Attorney (HCPOA) and demonstrated the ability to understand the consent and study descriptors, as determined by the Global Deterioration Scale (GDS) with a value of 4 or less. This ensured participants were able to fully consent and participate in the research and interview process.

Given the nature of this type of study, a smaller sample size of 3-10 participants was sought and deemed sufficient to provide an in-depth analysis of this specific phenomenon (Creswell & Poth, 2018). Specifically, Malterud et al. (2015) described the use of information power to determine whether a study requires a larger or smaller sample size. Information power can be supported by the study aim, sample specificity, an established theory, and quality of the dialogue (Malterud et al., 2015). In this study, a narrow study aimed with specific research questions offered information power to support a smaller sample size. By utilizing inclusion

criteria to increase the specificity of the sample population, support of the selected sample size was increased. An established method of study, an existential phenomenological design, provided further support for the selected sample size. Finally, the study-specific interview guide, designed to elicit rich, in-depth responses, guided and supported clear communication between the researcher and the participants (Malterud et al., 2015).

Setting

The setting for the study was a 153-bed facility comprised of short-term rehabilitation and long-term care units. The facility offers a full spectrum of post-hospital stay healthcare services, including nursing care and rehabilitation services. Participants were selected from this facility based on the inclusion criteria to participate in this research study. Although the researcher is a contract employee in this facility, the researcher's primary role is in the short-term rehabilitation unit. The focus of this study took place in the long-term care units to help reduce bias from familiarity with the potential participants.

Procedures

Sampling and Recruitment

A purposeful sampling strategy was utilized to provide the researcher with individual perspectives and experiences relevant to the research question (Jameel et al., 2018). Specifically, a purposeful criterion sampling strategy was utilized to select participants that met the specified inclusion criteria (Palinkas et al., 2015). This was useful in this study because it allowed for information-rich cases that exhibited the phenomenon of interest.

Participant recruitment began after approval was received from the Institutional Review Board at the University of Indianapolis. The researcher identified potential participants via the use of an internal wound care list routinely provided by the facility wound care nurse. The

facility wound care nurse distributed a recruitment flyer (Appendix A) to potential participants to eliminate any potential coercion by the primary researcher. The recruitment flyer directed residents to contact the researcher via phone or via their nurse should they be interested in participating in the study. The recruitment flyer also described the purpose of the study and participation criteria. All residents that were interested in participating contacted the researcher via their nurse and a time was set to meet with them in their room to maintain privacy. Those that expressed interest met with the researcher during the designated time to screen for inclusion criteria; in doing so, the researcher took note of their age, wound chronicity, and GDS score to determine the level of dementia and the residents' level of cognitive ability.

Residents that met the inclusion criteria received details about the study in written form via the informed consent form (Appendix B). The researcher reviewed this form by describing the study's purpose and expectations for participation, including an audio-recorded interview with a scheduled follow-up session to review and confirm general findings. Participants were also made aware that their participation was entirely voluntary and that their care would not be impacted in any way, whether they decided to participate or not. The risks and benefits of participation were shared as well as methods utilized to maintain confidentiality. They were also told that they could withdraw from the study at any time. They were given the chance to ask questions of the researcher and express any concerns. Those who agreed to participate then had an interview time scheduled to take place at their convenience.

Informed Consent

At the beginning of the interview, the primary researcher reiterated key points on the informed consent form (see Recruitment) and allowed the participant to ask any questions that

they had. After that, signed consent was obtained using the informed consent form (Appendix B) was obtained from each participant before beginning the interview.

Data Collection

Data was collected via in-depth, individual semi-structured interviews. Participants were interviewed face-to-face in the resident's room to ensure comfort and privacy and encourage participant openness. A COVID-19 mitigation protocol, as outlined by the facility and Center for Disease Control (CDC), was followed to ensure participant and researcher safety. Interview questions were gleaned from a prepared, semi-structured interview guide focused on understanding participants' lived experiences and the meaning of living with chronic wounds (Appendix C). Throughout the interview process, participants had the opportunity to seek clarification and ask questions as needed. Interview questions began in a broad, open-ended manner to gain initial rapport with the participant and allow them to freely describe their experiences. The interview then progressed to an in-depth, intimate style, incorporating probing and follow-up questions to gain a deeper understanding of the meaning the wound had upon the participant physically and psychologically. Interviews ranged from 30 to 60 minutes in length. Upon the conclusion of the interview, participants were informed that the researcher would be contacting them either by phone or in-person meeting, per their choice, to review the interpretations of the study and ensure the researcher's interpretation of the participants' experiences were accurate.

Data Management & Analysis

Audio recordings of participant interviews were transcribed verbatim utilizing the audio-to-text service, Temi. Memoing was utilized during this time to allow the researcher to make notes about emerging themes as the data came together and to reflect on any thoughts, feelings,

or assumptions experienced during data collection and analysis. In this way, the process of memoing allowed the researcher to capture and preserve data that may prove significant later (Birks et al., 2008). Once an initial transcription was ready, the researcher reviewed it for accuracy and de-identified it. Completed transcripts were exported from Temi using a numerical code as a file name to ensure participant privacy. They were then uploaded to Dedoose (version 8.3.43), a qualitative data analysis software program, for confidential storage. Audio files were saved in password-protected cloud storage.

Based on the seven steps of phenomenological research by Paul Colaizzi as cited in Phillips-Pula et al. (2011) and Finlayson et al. (2018), the first step in conducting phenomenological research is for researchers to immerse themselves in the data to get a sense of the interview before breaking it into components. Accordingly, the researcher read the transcripts multiple times to develop a sense of storyline and a true understanding of the emerging themes and first impressions. Keeping the study's purpose and research question in mind helped link the data to the storyline (Stuckey, 2015). The second step after reading and re-reading participant transcripts is for the researcher to assess the data for words or phrases connected to the research question. The third step in the phenomenological analysis is to formulate meaning to the statements and provide broad categorization (Finlayson et al., 2018, Morrow et al., 2015). To carry out these second and third steps, the researcher and a second, independent coder with extensive experience in qualitative data analysis and dissemination, engaged in independent coding of a section of the first transcript. By utilizing a second coder, the researcher decreased the possibility that assumptions of the primary researcher drove the decision-making process. (Creswell & Poth, 2018). The researcher and the second coder then met to discuss their codes and come to a consensus about the components of a codebook. Both the researcher and the

second coder further used that foundation of a codebook to independently code another section of the transcript. The codebook consisted of participant data, parent and child codes, code definitions, locations of data within each transcript, and representative participant quotations. The finalized codebook was set up into Dedoose for further analysis.

The researcher used Dedoose to cluster common experiences for all participants, in keeping with step four of Colaizzi's process (Phillips-Pula et al., 2011). By clustering those experiences, themes can be developed to help demonstrate commonalities across cases (Ayres et al., 2003). The researcher then completed steps one through four with the other interview transcripts and engaged in the fifth step by using the previously identified clusters to generate overarching themes (Phillips-Pula et al., 2011). To do this, the researcher formulated an exhaustive description of clusters in the first four steps (Finlayson et al., 2018). The sixth step involves establishing a structure of the phenomenon (Morrow et al., 2015). To this end, the researcher developed a summary of the participant's experiences (Phillips-Pula, 2011). analyzed Finally, in step seven, the researcher conducted member checking by reaching out to the residents by their preferred method, either by phone or meeting them in their room at the long-term care facility, to have them review their own interview data for accuracy. Based on participant feedback, there were no changes to incorporate.

Rigor/Trustworthiness

Henderson and Rheault (2004) describe Guba's model of trustworthiness in qualitative research as having four components: credibility, transferability, dependability, confirmability. Credibility is the ability to establish confidence that the results are true and credible (Henderson & Rheault, 2004)., To ensure credibility, the researcher and a second, independent coder with extensive experience in qualitative data analysis and dissemination, were involved in coding,

analysis, and theme development to ensure trustworthiness (Creswell & Poth, 2018). Credibility was also increased by the utilization of memoing and engagement in member checking.

Dependability is to ensure that the findings are repeatable (Henderson & Rheault, 2004). To ensure the dependability of the study, a thorough description of the study methods and data analysis was clearly outlined (Forero et al., 2018). This ensured that the sample was indicative of the population of the study (Henderson & Rheault, 2004).

To ensure confirmability, the researcher utilized a second coder which decreased the possibility that assumptions drove the decision-making process. Confirmability is the extent that confidence would be confirmed or corroborated by other researchers and it includes reflexivity. Reflexivity is the process by which the researcher reflects on their biases, values, and background and how this affects their interpretations during their research (Creswell, 2018).

Transferability is the degree to which the results can be generalized or transferred to other contexts or settings. To ensure the transferability of the study, a detailed description of the participant characteristics and their context was provided, as well as selecting the participants by utilizing a purposive sampling strategy.

Member checking occurred after data analysis to ensure the credibility of the findings and accurate interpretation of the data (Creswell & Poth, 2018). This was done by contacting participants via their preferred method after the data was interpreted. The researcher's interpretation of the participants' experiences was reviewed to ensure accuracy. The researcher and a second, independent coder were involved in coding, analysis, and theme development to ensure trustworthiness. By utilizing a second coder, the researcher increased trustworthiness by validating the data for accuracy (Creswell & Poth, 2018).

Results

Seven participants completed the current study, all of whom met the inclusion criteria (Table 1). Of those participants, five were females, and two were males. Participant ages ranged from 65 to 92 years old. Scores on the global deterioration score for cognitive function ranged from no cognitive decline (1) to age-associated memory impairment (2). Wound etiology varied with three pressure injuries, two post-operative, one injury, and one secondary to chronic venous insufficiency. The locations of the wounds varied from the sacrum, chest, thighs, and lower extremities. Participants were identified by letter and number to protect their privacy. All interviews were conducted face-to-face and followed the facility COVID-19 protocol.

Twelve parent codes were identified in the data, including comorbidities, COVID-19, emotions, constant care, financial burden, interruptions, mental/spiritual health, relationships/support, treatment, mobility/limitations, perceptions of ability, and perceptions of care. Eight of those parent codes were further broken down to contain child codes, for a total of 46. Based upon the analysis of the parent and child codes, four major themes and nine sub-themes (Table 2) emerged, which helped to answer the research question. The four major themes were: lack of independence, confinement/limitations, interruptions, and emotional sequelae.

Theme 1: Lack of Independence

The first primary theme that resulted from the analysis of participant interviews was a lack of independence. Participants perceived a lack of independence resulting from reliance on and necessity to have staff and caregiver assistance. Participants also reported that they could not perform functional tasks at an independent level. Two sub-themes emerged from an overall perception of lack of independence: a lack of mobility and an inability to return home.

Lack of Mobility

A sub-theme that emerged related to lack of independence included a lack of mobility. A lack of mobility arose from restrictions residents faced from their wounds. For example, many residents were unable to reach their wounds to provide their wound care. Some had pain resulting from their wound that restricted their ability to move, and others had underlying weaknesses from being immobile that further limited their mobility. All participants reported needing an assistive device for support and physical assistance from staff. This was resultant from immobility attributed to their wound from factors such as drainage requiring their legs to be constantly elevated, pressure sores needing positional changes, and a lack of mobility due to wound-related edema and pain. For example, participant 4L stated: "I don't get around good." Participants reported the need for care to perform daily tasks such as bed mobility, transfers, and activities of daily living. For example, one participant reports she was unable to take a shower without assistance because she not only needed the physical help, but she had to have staff dress the wound before and after she bathed. Participant 1M stated: "If I take a shower, I had to make sure that it was covered so I could do what I had to do." Another participant described her thigh wound as impacting her ability to ambulate to the bathroom. Participant 5C stated: "I can't get up and walk into the bathroom because my legs rub together." Some participants even reported an inability to ambulate, requiring mechanical lifts to get out of bed and transfer to and from a chair. This was not only from wound-related pain but also from edema and weakness. Participant 4L stated: "I don't like being dependent on other people, but you accept it... It's awful, I can't do it myself...that lack of independence." An inability to function independently on a day-to-day basis was a theme throughout for all participants.

Inability to Return Home

Participants also described their lack of independence as an inability to return to their homes. Many lacked the support from others to care for their wounds. For example, participant 6C stated, “yeah, she tried,” when describing his wife attempting to care for his pressure injury at home. Participant 2H described difficulty with the recommended wound care products, “we didn't have the proper dressings available, so we were using incontinence pads.” Participant 3P described his sons’ unsuccessful attempt to heal his wound, “I have three boys, and they were taking turns and, and they kept those bandages on every day, every night.”

All participants had physically limiting conditions that impacted their ability to stay within their homes for care. They also reported difficulty in mobility resulting from the conditions that were limiting them physically, which made it difficult to remain within their home, resulting in admission into the long-term care facility. It was difficult to tease apart whether their wound itself or a combination of this and their physical conditions secondary to their co-morbidities were the primary factors. Comorbidities that reduce physical mobility predispose people to wounds while wound-related complications can reduce mobility, making these issues highly interrelated. The mobility deficits reported included an inability to ascend and descend stairs to safely enter and exit their homes. As participant 5C stated regarding her wound on her thigh limiting her ability to take steps as well as her obesity and weakness limiting her functionally, “I couldn’t get down the front steps. So, you’re trapped in your own home.” Similarly, participant 2H reported that “it was hard to get out of the house and do stuff; it was draining so heavily.” One participant described an inability to get into and out of a car for transportation due to pain in her lower leg wound and lower extremity weakness. Participant 1M reported:

I was afraid of sliding [out of the car], and then everybody's paranoid about taking me and it's just like, it's not worth it. You stay home. But it's not, you know, is that really where I'd like to be? I'd like to be out sometime, even if it was just for a ride.

One participant had a strong desire to be independent and attempted to return to her home. Her perception was that she would be able to care for herself and move around independently. She was unsuccessful, resulting in a need to call emergency medical services as she could not independently get out of her chair. Ultimately, she had to return to the facility. She did not solely relate her need to return to the facility due to the wound but a combination of physical limitations, limited mobility, and an inability to care for herself.

Participant 1M reported:

And in my mind, I said, oh, I just go home. I can get my lift chair. It didn't work... I was just sitting in an awkward position. I could not stand; my brain wasn't letting me do that. So, they called emergency medical services and they came in.

Theme 2: Confinement/Limitations

The second theme that arose from the analysis of participant interviews relates to the participants' reported feelings of confinement and the experience of limitations in day-to-day functioning related to their wound. This theme also included three sub-themes; medical co-morbidities, wound severity, and COVID-19. Participants recognized the effects of the wound on all aspects of their daily care. For example, covering the wound to be able to bathe, keeping their legs elevated to decrease drainage, wearing clothing that is conducive to bulky dressings, or staying confined to their room due to the perception of the risk of further infection were some examples of the effects of the wound on daily care. Participant 1M reported: "It was confining, you know, and if I take a shower, I had to make sure that it was covered so I could do what I had

to do.” Similarly, participant 2H reported: “As long as it was draining, they had thought it would be better if I don’t go out...and this kept me kind of confined to my room.” Another participant described being confined to his room due to his wound. Participant 3P stated: “I’m bedridden, and I’ve got a jar [negative pressure wound therapy canister] on one side and a jar [negative pressure wound therapy canister] on the other, and I can’t go anywhere.”

Medical Co-morbidities

Many reported that the wound itself was not the only contributing factor that resulted in limitations in day-to-day functioning and feelings of confinement. A combination of participant co-morbidities paired with the wound resulted in limitations in their mobility, function, and ability to participate in their daily self-care. All participants had medical comorbidities, as seen in the full list provided in Table 1. These co-morbidities included, but were not limited to, obesity, lymphedema, sepsis, neuropathy, atrial fibrillation, hypertension, congestive heart failure, and peripheral vascular disease. Among these, obesity, lymphedema, sepsis, neuropathy, and diabetes mellitus were perceived by the participants to be the most influential in their ongoing limitations related to the wound, as they were seen to delay healing and limit day-to-day functioning. For example, participant 4L stated: “I haven’t been showering in the shower because I was so afraid, I’ve had two falls.” This was further clarified with the participant during member checking; the participant referenced her obesity and neuropathy resulting in a history of falls. This limited her mobility due to a fear of falling and fear of re-injuring her wound. When discussing limitations to wound healing, participant 3P reported: “And my blood sugar wasn’t good. You know, I probably should have been on insulin earlier, maybe.” This was further clarified during member checking as to if his limitations in healing were attributed to his lack of managing his diabetes, and he confirmed this.

Obesity was related to feelings of limitation by many participants, both the obesity resulting in wounds as well as obesity limiting the participant physically. For example, participant 5C stated:

I would say probably my obesity is the big one because I retain water, and if I had taken care of myself, you know, when I wasn't retaining water, I would've never gotten those little blisters, which burst all the time.

Participant 1M reported that she is limited because of her size “and because of my size, you know, they don't want me falling on no floor.” She also reported feeling limited from her obesity. When asked if the wound was the limiting factor in leaving her room, she stated: “It's also my other issues that I have that inhibit me to do certain things.” Another participant, 2H, described an interaction before coming into the facility. She reported one doctor saw her for her wounds, but she felt that he did not further treat her due to her size. She felt that her lack of outpatient care limited her ability to stay in her home as further care was needed. She was admitted to the hospital for wound-related sepsis and then admitted to the skilled nursing facility for wound care.

I got extremely frustrated with him, and that was the last time I visited there because he said, I can't do anything more for you, you have to lose weight. That's the only way it's going to get healed, and they discharged me. I still had a humongous wound on my leg.

Wound Severity

Participants identified wound severity to be a factor in feelings of confinement/limitations. The severity of the wound with complaints of pain, for example, was a factor for many participants. Participant 5C stated: “that [the wound] was very, very painful.” Similarly, participant 2H reported: “I felt like dying. I was going through so much pain all the

time.” Limitations resulting from pain in the wound and during treatments were further clarified during member checking. Participants clarified that the pain resulted in a reluctance to leave their room due to the discomfort. These feelings of confinement can affect the participants' day-to-day functioning and perceptions of their quality of life. For example, participant 1M reported: “I just don’t go out into the hall.” Another participant (5C) described her quality of life (QoL) by stating: “You know, you sit around and think, why me and how am I going to get out of this? And why didn't I die? Should I die?” Participants also reported that excessive drainage, the need for multiple bandages resulting in a bulky appearance, and feeling self-conscious also resulted in feelings of isolation and confinement. Participant 4L reported about leaving her room with her wound: “I was very apprehensive.”

COVID-19 Restrictions

In addition to the impact the wound had on participants, many also shared concerns related to COVID-19 that further confounded the feeling of confinement produced by having a wound. Some participants also reported a lack of wanting to interact with other residents. Participant 1M stated: “My stuff is one thing, but, and I'm afraid if I go to that dining room, that's going to be an issue for me. And so, I'd just as soon stay here, especially at this stage of the game.” This statement was further clarified with the participant during member checking to gain a complete understanding of why she chose not to exit their room for meals. The participant further explained that it not only took a lot of assistance from staff to get her up and out of bed, but then there was an added risk for developing COVID-19 if they were interacting with other residents. The impact COVID-19 had on participants' mobility outside of their rooms was hard to tease apart from wound-related mobility restrictions. Both the wound and COVID-19 played a part in participants exiting their rooms and interacting within the facility.

Participants also reported feelings of confinement and limitations due to the COVID-19 pandemic and facility restrictions. This included the restrictions the facility had placed on visitors; visitors were not allowed into the building at the beginning of this study during the peak of the pandemic. In addition, limitations on outings were put in place due to the risk of COVID-19 in the community resulting in the facility only allowing medically necessary appointments. The facility itself also posed a risk to the residents, as the facility had residents and staff that tested positive for COVID-19. As a result, mitigation strategies were put in place. For example, if a resident needed to leave the facility for an appointment, they were required to wear appropriate personal protective equipment (PPE) and had to be placed in isolation upon returning for 10 days. During the duration of the study, the facility continued to limit visitors coming into the building.

Participants reported feeling socially isolated and restricted to their rooms for most of the day. It was difficult to differentiate if the primary limiting factor was the COVID-19 restrictions or a combination of this and the wound, as participants referred to both contributing to a feeling of social isolation. Some stated the wound itself limited their participation in activities and events outside of their room due to drainage, fear of infection, potential odor, and negative perceptions others may have of them. For example, participant 5C stated regarding the appearance of her wound, “When I see that, I can’t even think about the scarring that’s going to be on my leg.” Participant 1M stated: “I don’t know if it will ever be right.” Participant 2H also stated: “It was draining so heavily.” Participants also noted that the increased risk of COVID-19 infection was limiting them from wanting to leave their rooms. For example, participant 6C said: “You don't want to go out and about; you haven't had the urge to, because you got to wear that mask and worry about all that COVID stuff.” Thus, although it may not be the only factor,

COVID-19 played a role in contributing to participants' feelings of confinement and social isolation, negatively affecting QoL. Participants reported a fear of the COVID-19 virus as well as further infection to their existing wounds. For example, participant 1M stated: “I mean, it [wound] was wide open.”

Theme 3: Interruptions

The third theme depicts participant perceptions that chronic wounds caused interruptions in their normal routines. These interruptions to normal routines were further categorized into sub-themes. These sub-themes included: interruptions in time, interruptions in relationships with family, and interruptions in daily routines.

Interruption in Time

All participants felt a sense of interruption in time, whether from time taken out of their day for the care of their wound or a sense of time lost dealing with the entire healing process itself. Participant 1M stated: “It [the wound] does require a bit of attention.” Similarly, participant 2H stated: “It is intense, constant care.” Interruptions in time were also felt by participants related to their relationships with their families. For example, participant 2H reported: “I was missing out on stuff, doing activities with other people being stuck in my room so often.” This interruption may be attributed to a combination of the time it took to care for the wound and the COVID-19 facility restrictions. Given that participants attributed an interruption in time to both, it was difficult to differentiate the most influential factor.

Interruption in Relationships

Participants also reported not wanting to interrupt their family members to care for them. Many participants acknowledged that caring for their wounds takes a significant amount of time. They described that their families have other responsibilities, and they did not want to interrupt

those responsibilities. For example, participant 4L stated: “I mean, it's been a long time, I haven't seen that much of her cause she doesn't have the time.” This was further clarified during member checking to assess these concerns. Predominately, participants felt that their family members have other responsibilities, and they did not want to interrupt their other responsibilities to have them care for them. Another participant stated: “You get lazy after a while; you just don't want to interrupt your day, you know?”

Interruption in Daily Routine

There was a mixed report about how the wound interrupted the participants' daily routine. The majority of participants felt that the time it took to care for their wound interrupted their daily routine, placing an interruption in their normal day-to-day activities. For example, participant 1M stated: “for a while, they were wrapping it, to keep the bandage on, and then the wrapping would fall off, and the bandage would be open, and it's like, oh geez.” Similarly, participant 2H reported: “It just interrupts my daily life, to where the dressing just gets changed and then it has to be changed again.” However, one participant felt that caring for their wound was just part of their normal routine at this point. Participant 5C stated: “Yeah, it's just part of the routine.”

Theme 4: Emotional Sequelae

The fourth theme that emerged from the data relates to the participant's perceptions of the emotional consequences of living with a chronic wound. Many participants reported feelings of loneliness and depression. For example, participant 6C stated: “I feel, kind of low, I can't do much.” Similarly, participant 5C said: “I mean, I could just feel the depression pulling me right down.” Participants reported feeling down or depressed due to not being able to live at home. Participants also reported limitations their family members have, such as transportation issues

and family obligations limiting their ability to come in and see them, even for a window visit. One participant reported that her spouse was unable to visit due to his medical issues. Another participant said his wife still worked, which limited her ability to make time to visit. These factors played a role as to why a family member was not able to come to visit. Therefore, it could not solely be attributed to their wound or facility restrictions, as personal family matters also contributed to this.

In addition, many participants reported anxiety and worry related to their wound prognosis and interventions they may or may not have experienced. For example, one participant reported anxiety when she was faced with the decision about having surgery and opted not to have the procedure done due to fear. Participant 1M reported: “They told me one time that they would probably have to do plastic surgery on that leg, and I said, I don't think so, not these legs.” Another participant reported worry about his negative pressure wound therapy device. He worried about who would change it and when it would be changed. He also reported that, due to issues at the hospital when the negative pressure wound therapy was placed, he was more aware of the need for someone trained to manage it. Participant 3P stated regarding his wound vac care: “It only takes one little spot where the tape doesn’t seal and then the air leaks in there, and there are only certain people that know how to do that.” There were also reports of frustration with the length of time it has taken to heal their wounds, as well as not being able to care for the wound themselves at home and requiring admission to the facility. For example, participant 2H reported: “it was frustrating because everything would stop, it stopped getting smaller, and the drainage would continue.”

Despite the fear, worry, and anxiety many have faced, all participants reported improvements in their wounds, positivity about being in the facility, and the care they have received. Participant 5C reported:

It [the wound] is healing, but I cared for it for seven months and nothing was done. Now that I've been in here, they're very active at cleaning and dressing it and it's coming along well...I'm having a difficult time, but I've had tremendous help here. I really can't say enough about this place, it has been very, very good to me and I can get out of bed now.

While discussing the care they have received, participants had very positive reports. For example, participant 1M reported about her wound care: "they took very good care of it." Similarly, participant 3P stated: "they know their stuff."

All participants reported that the healing of their wounds could be attributed to the positive, knowledgeable, and constant care they are receiving at the facility. Participants also expressed a perception of relationship development while being in the facility. Receiving regular and daily care from the facility caregivers, staff, and therapists contributed to the development of new relationships. For example, participant 5C stated: "It gives you somebody else to talk to, and somebody else to see." Participant 1M said: "And there again, I've made very nice friends through all this, you know, through that stuff I can think, well, you know, this is kind of nice. I keep in touch with the nurses that I had at homecare." Participant 2H stated: "It increased my relationships actually because it brought more people into my life, the caregivers and the nurses that came into my life."

Discussion

There is limited research to describe the lived experience and meaning ascribed to living with a chronic wound in the older adult population. Research focused on those living within

skilled nursing facilities with chronic wounds is particularly sparse. As such, the purpose of this existential-phenomenological study was to examine participants' lived experiences and increase the understanding of the meaning residents ascribe to living with a chronic wound in a long-term care setting. This study highlighted the need for research in long-term care to fully understand older adults' experiences living with chronic wounds in this setting.

Approval was received from the Institutional Review Board at the University of Indianapolis for this study prior to beginning recruitment activities. The study took place in a 153-bed, rehabilitation center, consisting of a short-term unit and a long-term care unit. Participants in this study included older adults with chronic wounds currently residing in the long-term care unit. Inclusion criteria for this study consisted of individuals who were 65 years of age or older. Participants had a wound of any etiology for more than 4 weeks. All participants were their own Healthcare Power of Attorney (HCPOA) and demonstrated the ability to understand the consent and study descriptors, as determined by the Global Deterioration Scale (GDS) with a value of 4 or less.

A factor that played a unique role in carrying out this research study was the global COVID-19 pandemic. The primary researcher received the COVID-19 vaccination, was tested weekly for COVID-19 at the request of the facility and maintained compliance with the facility and the Centers for Disease Control and Prevention COVID-19 guidelines. The effects of COVID-19 not only affected how the researcher accessed participants, but the participants also faced restrictions that fluctuated during the study due to changes within government regulations. For example, visitation restrictions were put into place, residents were not able to leave the facility for leisure, and residents were not able to venture into the halls for socialization. In the

end, the meaning of living with a chronic wound in a long-term care facility was informed by the experience of simultaneously living through the COVID-19 global pandemic.

In this study, four major themes and nine sub-themes emerged which reflected the meaning that residents living in a skilled nursing facility ascribed to living with chronic wounds (see Table 2). Overall, there was a lack of independence, feelings of confinement/limitation, interruptions to daily life, and emotional perceptions experienced by participants. Understanding these themes and how residents in skilled nursing facilities evaluate their quality of life (QoL) enables healthcare providers to improve clinical outcomes, including resident satisfaction.

Theme 1: Lack of Independence

Every participant living with a chronic wound in the current study reported a lack of independence, affecting their QoL. Both residents with and without wounds in long-term care facilities may face limitations in mobility and an inability to return home for various reasons. In keeping with this, individuals in this study, all of whom had chronic wounds and resided in a long-term care facility, reported a decrease in their level of independence. A study by Hopman et al. (2016), noted that independence with mobility was related to QoL in those living with chronic wounds in the community. Specifically, the authors explained that factors related to improved QoL included independence with mobility, decreased difficulty with activities of daily living, and fewer baseline comorbidities. Although the study by Hopman, et al. (2016) took place with community-dwelling older adults, the results are consistent with the findings of the current study, which focused on residents residing in long-term care facilities. The findings of this study support research on resident perceptions of independence, particularly that a lack of independence results in a negative perception of QoL (Hopman et al., 2016, Harlin et al., 2009). That is, participants reported a lack of independence, a lack of mobility, and an inability to return

home resulting in the need for constant care to care for the wound and also perform daily tasks such as bed mobility, transfers, and activities of daily living.

Participants in this study reported requiring assistance for mobility tasks. A study by Jaul (2010) demonstrated that the effects of immobility contributed significantly to wound outcomes and wound development due to increased shearing forces, pressure, friction, and increased vulnerability of the skin when someone is immobile. The risks of further breakdown and/or an inability of the wound to fully heal increases when a patient is immobile (Hopman et al., 2016, Jaul, 2010, Harlin et al., 2009, Beitz & Goldberg, 2005). A benefit to those residents in a long-term care facility is the access to the required assistance for mobility to help counteract the negative effects of immobility. Participants with a chronic wound in a long-term care facility have access to a level of care and assistance that community-dwelling people with wounds do not, and in this study, participants recognized the benefit of the assistance they received regarding wound healing. Those who need greater mobility assistance to promote wound healing may not receive the necessary care they need at home, leading to poorer healing outcomes. This highlights the value of a long-term care setting for those with chronic wounds and mobility restrictions. By increasing participant mobility, clinical outcomes can be improved by facilitating wound healing, fostering independence, and increasing resident perceptions of their level of independence in their day-to-day functioning.

Although participants had negative feelings about a lack of independence, all participants recognized that the assistance they received with mobility and caring for their wounds led to positive outcomes regarding wound healing. All participants described positive perceptions of their wound healing. There are factors related to residing in a long-term care facility that can positively affect wound healing including 24-hour care, assistance for mobility restrictions, and

expert wound care. These reflect unique, positive implications of residing in a long-term care facility not experienced by those in the community facing similar wounds.

Theme 2: Confinement/Limitations

In the current study, feelings of confinement/limitations resulted in a negative perception of one's QoL. Participants' feelings of confinement/limitations resulted from a combination of medical co-morbidities, wound severity, and COVID-19 factors. Existing research has demonstrated that chronic wound-related factors, including pain, discharge, odor, and limited mobility, significantly affect QoL (Augustin et al., 2017). In this current study, participants described that chronic wounds resulted in feelings of confinement affecting QoL secondary to limited participation in activities and events outside of their room. Similar to the findings of Augustin et al. (2017), this was due to drainage, fear of infection, potential odor, and the fear of negative perceptions others may have of them. The findings of this study determined individuals residing in a long-term care facility experience reduced QoL due to confinement-related issues, at least in part, due to wound-related factors.

Clinicians can foster improved QoL by focusing on factors that can be adjusted to improve residents' feelings of confinement/limitations. A variety of advanced wound dressings are available to mitigate the factors discussed previously that negatively affect quality of life. For example, dressings containing activated charcoal can neutralize wound odor, allowing residents the opportunity to socialize without embarrassment. Antibacterial dressings can further assist with reducing wound odor and the risk of infection. Advanced "super absorbent" dressings can manage a significant amount of drainage, prolonging wear time while preventing leakage from heavily draining wounds. All these options can reduce a resident's feeling of confinement due to

wound-related issues. Finally, silicone-based adhesives and the use of topical or oral medications can be used to reduce procedural-related wound pain, improving overall QoL.

As clinicians, there is an awareness of the numerous effects of the COVID-19 global pandemic on the healthcare environment. It must be recognized that the pandemic-related restrictions that were placed on residents in long-term care facilities also contributed to feelings of isolation and confinement in these residents. In the current study, it was impossible to identify which feelings of isolation and confinement were related to the wound, the pandemic-related restrictions, or a combination of both. More research is needed to better elucidate the impact of chronic wounds on this feeling of confinement. Further research should take place within long-term care facilities outside of a global pandemic.

Theme 3: Interruptions

Participants in this study described interruptions to their day-to-day lives as having to do with interruptions in time, interruptions in relationships, and interruptions in daily routine. Residents in long-term care facilities may face interruptions in their day due to therapy visits, medication passes, and other care activities. Participants in this study described further interruptions in their day-to-day lives related to wound and dressing changes. These interruptions are unique to residents in long-term care facilities with chronic wounds and are likely in addition to other interruptions. This theme has not been previously identified within the literature, perhaps due to limited research performed in this setting, and appears to be exclusive to those residents residing in long-term care facilities. Perhaps interruptions experienced by these residents are due to the amount of care they require, which is why they are in the long-term care facility in the first place. It could also be in part due to those in the community having more control over their schedule. For example, they can decide when to change their own dressing or have input into

when home health caregivers come to see them. Perhaps those in long-term care facilities feel a lack of control over their schedule in general. Clinicians need to be cognizant and understanding of the time it takes out of the resident's day, how it affects their already limited time with family and friends, and acknowledge the perceptions the resident may have on their lack of control in their day.

Skilled nursing facilities can assist with decreasing the perception of interruptions to residents' daily life and relationships by setting established routines for wound care treatments. In some facilities, including the current study facility, the timing of residents' wound care can fluctuate on a day-to-day basis, depending upon the schedule of the wound care nurse. Involving the resident in scheduling wound care treatment appointments could be an effective strategy to mitigate the feeling of unexpected interruptions to the residents' lives. When this is not possible, providing as much advanced notice of planned care is advised. The facility can also increase visitor support and be encouraging of family support. However, considering the restrictions COVID-19 placed upon the facility, other means of communication between the resident and their family such as virtual visits may be another viable option to consider.

Theme 4: Emotional Sequelae

In the current study, many participants reported feelings of loneliness, depression, or feeling down due to living with a chronic wound. This is similar to the results of a study by Cunha et al. (2017) in which it was determined that life changes resulting from chronic leg ulcers included sadness, anger, depression, and loneliness in more than 30% of their community-dwelling participants. Even though residents in this study lived in a long-term care facility, the participants had similar perceptions as those living within the community.

Further, many participants reported anxiety and worry related to their wounds. This is also supported in the literature, as existing research has established that psychological stress negatively affects wound healing and, thus, should be addressed (Robinson et al., 2017). A study by Hopman et al. (2014), determined that QoL in participants in community-dwelling settings was affected by feelings of frustration, mobility, and anxiety. Although the current study was conducted with adults in a long-term care facility, the findings support that wounds result in perceived negative effects on QoL.

A wound's ability to heal is not only affected by the physical environment but also a patient's poor psychological status (Walburn et al., 2017). These stressors were evident when looking at participants' perceptions of QoL. This study's results revealed that residents' perceptions of their QoL, including the domains of mobility, independence, and feelings of confinement, were negatively affected by their chronic wounds. As such, a combination of residents' feelings of depression and feelings of social isolation could negatively impact their wound healing. This study's results are also supported in a study by Hopman et al. (2016) in which it was determined that chronic lower extremity wounds resulted in negative health-related QoL due to pain, social isolation, and mobility limitations. Although the Hopman et al. (2016) study occurred in the community-dwelling adult population, comparisons can be made to this study as the results are similar despite the difference in the participant population setting. The COVID-19 global pandemic also needs to be considered as it could have magnified the issue of social isolation with the participants in this study.

The emotions identified in the current study align with themes developed by Beitz & Goldberg (2005). The researchers in the Beitz & Goldberg (2005) study identified chronic wound factors that impact a patient's QoL in community and long-term care settings, including

the effects of losing mobility, changing agility, and living with pain from both wound treatments and the wound itself. Similarly, this study found negative factors in QoL due to immobility and wound-related pain.

In contrast to the Beitz & Goldberg (2005) study, participants in this study reported positive perceptions of their wound healing and a sense of support from the staff at the facility. Participants felt their caregivers were knowledgeable, and new, positive relationships developed between facility staff and participants. Beitz & Goldberg (2005) found that participants had concerns surrounding receiving care, including trusting the caregiver and accepting care. This was not a finding in the current study. In contrast, positive perceptions were expressed by participants in the current study. This may be attributed to the fact that residents in long-term care facilities recognize their needs and the impact that their wounds have on their care needs. Also, another significant factor could be the amount of time that residents have to develop relationships with their caregivers, as residents in long-term care facilities have caregivers available 24 hours per day. Further, those within the community may have family members completing their care, whereas, in a long-term care facility, care is performed by a skilled provider. This may explain the differences in trust developed between participants in this study and their providers compared to the participants in the Beitz & Goldberg (2005) study. Because this study is limited to one facility, further research is indicated in a variety of skilled nursing facilities to examine perceptions of care and the lived experience of older adults living with a chronic wound.

A resident's emotional state should be routinely assessed due to the emotional factors related to having a chronic wound. This is also supported in the literature, as existing research has established that psychological stress negatively affects wound healing and should be

addressed (Robinson et al., 2017). It is recommended that clinicians utilize tools such as wound-related QoL measures to determine a resident's emotional health and to determine if a further referral is indicated to the proper support systems, such as a social worker or psychologist.

Limitations

A potential limitation of this study is the risk of researcher bias and perception of coercion during recruitment, as the researcher was employed at the facility in which the study took place. Attempts to decrease this risk were made. As the researcher worked occasionally in the short-term rehabilitation unit of this facility, the focus of this study took place in the long-term care units to help reduce bias from familiarity with the potential participants. The distribution of the recruitment flyer to residents by the wound care nurse instead of the researcher was also utilized to decrease coercion.

Also, to decrease potential bias, the researcher utilized a second, independent coder with extensive experience in qualitative data analysis and dissemination. In doing so, the researcher helped minimize the role that the researcher's assumptions may have played in her interpretation of the results (Creswell & Poth, 2018). Finally, the use of memoing ensured that the researcher was able to capture and keep track of personal thoughts and assumptions and, thus, limit researcher bias throughout data analysis (Henderson & Rheault, 2004).

Another potential limitation within this study was the effects of the COVID-19 global pandemic. As results were compared to prior literature, the COVID-19 global pandemic was a new factor within this study that had not previously been a factor in the existing literature. Attempts were made to focus on wound-related factors, but the influence of the pandemic-related restrictions impacted the participants' lived experiences and perceptions.

Future Research

There is a lack of qualitative research assessing patients' lived experiences with chronic wounds, specifically in the long-term care setting. The findings of this study contribute to this limited area of research. However, the findings of this study were limited to one facility located in a rural area. Given this, there is a need for further qualitative research with a more diverse sample to gain a broader perspective on the impact of living with a chronic wound. For example, including participants with diversity in characteristics such as short-term versus long-term facility status would allow for a combination of residents staying short-term and long-term and may lead to a difference in perspective. Variations within facility locations would also enhance the diversity of the sample, for example, residents within rural versus metropolitan settings.

Based on the study results, the researchers provided specific suggestions for how clinicians in skilled nursing facilities can improve residents' wound healing and overall QoL. These suggestions included monitoring resident QoL and emotional state and eliciting more mobility within these individuals. It was further recommended that long-term care facilities decrease interruptions to residents' daily life and relationships by setting established routines for wound care treatments. Further research is needed to determine how these changes may impact residents' perceptions, wound healing, and overall QoL.

The COVID-19 pandemic placed additional stressors, changes in routines, and limitations upon residents in long-term care facilities. The effects of COVID-19 could not be exclusively separated from some of the findings in this study. Given this, additional research, not in the context of a global pandemic, is needed to assess the specific impacts of chronic wounds.

Summary

Chronic wounds result in a lack of independence, feelings of confinement/limitations, interruptions in day-to-day activities, and emotional sequelae with residents in long-term care

facilities. While all these factors affect residents in long-term care facilities, they can also affect those in the community living with chronic wounds. Thus, the importance of addressing these factors can provide a benefit to all patients with wounds.

Further, chronic wounds lead to feelings of confinement and social isolation for residents in long-term care facilities. This was also amplified by the COVID-19 pandemic. Although changes can be elicited to the wound-related confinement and social isolation barriers, the effects of the COVID-19 pandemic on resident emotional perceptions and social isolation, with or without wound involvement, should be further studied. A lack of mobility can be both a result of having a wound and/or a precipitating factor in wound development. Non-wound-related comorbidities may also play a role in decreased mobility, complicating the ability to attribute this theme solely to the wound. Regardless, care in skilled nursing facilities should focus on increasing resident mobility to mitigate the negative effects seen with immobility with all residents, as improved mobility can improve wound healing. Improved independence and mobility may also increase their chances of returning home, subsequently decreasing feelings of confinement and resulting in fewer interruptions in day-to-day activity.

Perhaps the most meaningful difference between residents residing in long-term care facilities and those community-dwelling older adults was the perception of positive care felt by those in the long-term care facility. All participants reported positive, knowledgeable, and constant care received while in the long-term care facility. These findings can aid in decreasing the negative stigma long-term care facilities face and shed light on the level of care long-term care facilities provide individuals with chronic wounds.

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Participant Characteristics

Table 1

Participant Characteristics

Gender	Age	Wound Etiology	GDS Score	Co-Morbidities
Female	73	Injury	1	Lymphedema Obesity Atrial Fibrillation Depression Anxiety Hypertension Congestive Heart Failure Chronic Venous Insufficiency
Female	65	Chronic Venous Insufficiency	1	Lymphedema Obesity Atrial Fibrillation Chronic Obstructive Pulmonary Disease Diabetes Mellitus Anxiety Hypertension Bipolar Disorder
Male	92	Post-Op Surgical	1	Hypertension Infection Diabetes Mellitus Atrial Flutter Peripheral Vascular Disease Coronary Artery Disease
Female	87	Pressure Injury	1	Congestive Heart Failure Atrial Fibrillation Hypertension Edema Fluid Overload Diabetes Mellitus
Female	70	Post-Op Surgical and Chronic Venous Insufficiency	1	Sepsis Obesity Atrial Fibrillation Hypertension Chronic Kidney Disease Congestive Heart Failure Edema
Male	72	Pressure Injury	2	Sepsis Cerebral Vascular Accident with hemiparesis Chronic Kidney Disease Peripheral Vascular Disease Coronary Artery Disease Atrial Fibrillation Diabetes Mellitus Myocardial Infarction
Female	88	Pressure Injury	2	Degenerative Disc Disease Malnutrition

Table 2*Theme Table*

Theme	Definition	Sub-Themes
Lack of Independence	<ul style="list-style-type: none"> • Participants reporting difficulty, inability or limited independence in day-to-day tasks 	<ul style="list-style-type: none"> • Lack of mobility • Inability to return home
Confinement/Limitations	<ul style="list-style-type: none"> • Participants reporting feelings of confinement, limitations with activities, or feelings of isolation 	<ul style="list-style-type: none"> • Medical comorbidities • Wound severity • COVID-19
Interruptions	<ul style="list-style-type: none"> • Participants reporting feelings of disruption or interruption in their day-to-day lives 	<ul style="list-style-type: none"> • Interruption in time • Interruption in relationships • Interruption in daily routine
Emotional Sequelae	<ul style="list-style-type: none"> • Participants reporting emotions related to their wound, wound treatment, and/or day-to-day lives 	

Appendix A: Recruitment Flyer

Do you have a wound?

We would like to hear about your experience!



Study Conducted By:

Lisa Borrero, PhD
Rochelle Bourassa, DPT

University of Indianapolis
1400 E. Hanna Ave.
Indianapolis, IN 46227

This research has been approved by the University of Indianapolis Institutional Review Board (IRB). Approval date 6/28/2021 Approval number 01460.

- Are you older than 65 years old?
- Have you had a wound for more than 30 days?
- Would you like to share your experience with others?

We would like to learn from you! This confidential research study, conducted by researchers at the University of Indianapolis, focuses on what it is like for people to live with a chronic wound. By studying this, we can help tailor interventions, treatments, and clinical approaches to ensure positive patient experiences, compassionate care, and improve outcomes. Your participation involves a private, individual interview lasting 45-60 min with a follow-up review lasting 30 min.



Are you interested in sharing your experience about living with a chronic wound?

Contact:

**Rochelle Bourassa at
(989) 751-5950 or ask your nurse to speak with her.**

Appendix B: Informed Consent

KEY INFORMATION FOR POTENTIAL RESEARCH PARTICIPANTS

The University of Indianapolis is requesting your participation in a research study to understand and validate the patients' lived experience while living with a chronic wound in a long-term care facility. Your consent to participate in this study is voluntary and consent can be withdrawn at any point in the research process. Your care will not be impacted in any way should you chose to participate or not. The study consists of a recorded in-person interview, maintaining COVID-19 mitigation protocol. Interviews will take approximately 45-60 minutes and your identity will remain completely confidential. A brief follow-up meeting of approximately 30 minutes will clarify and discuss the researcher's interpretations of the themes drawn from the initial interview. Participants will not directly benefit from participation and no risks or discomforts have been identified for potential participants.

CONSENT TO PARTICIPATE IN RESEARCH STUDY

The Meaning of Chronic Wounds in Patients in Long Term Care

Study Principal Investigator (PI): Dr. Lisa Borrero

UIndy Email: borrerol@uindy.edu

UIndy Telephone: (317) 791-5944

Lisa Borrero, Ph.D., and Rochelle Bourassa, DPT, CLT-LANA, CWS at the University of Indianapolis (UIndy) are conducting a research study.

You were selected as a possible participant in this study because you are an older adult with a chronic wound currently residing in a long-term care facility. Your participation in this research study is voluntary.

Why is this study being done?

The purpose of this qualitative research study is to understand older adults' lived experience with a chronic wound in a skilled nursing facility. This study's primary significance is to give patients the ability to speak to their experiences while living with a chronic wound. Understanding and validating the patients' experiences is important in wound healing. Ultimately, by examining patients' lived experiences in the skilled nursing facility, quality of life in patients can be more fully understood and, in turn, maximize clinical outcomes. Understanding the meaning of living with a chronic wound in a long-term care setting for patients can help tailor interventions, treatments, and clinical approaches to ensure positive patient experiences, compassionate care, and improve outcomes.

What will happen if I take part in this research study?

If you volunteer to participate in this study, the researcher will ask you to do the following:

- Participate in a 45-60 minute interview with the researcher, which will be audio recorded.
 - Interview questions will be open ended and will allow for a semi structured discussion of the participant's experiences and feelings.
- Participate in a follow up meeting to clarify and discuss the researcher's interpretations of the themes drawn from the initial interview.
- Consent for the researcher, Dr. Bourassa to access your medical record solely for purposes related to the research study to determine wound details, chronicity, history, and etiology.

How long will I be in the research study?

Participation will take a total of about 45-60 minutes for the initial interview. Additional time for follow-up discussion at a later date will take approximately 30 minutes to confirm and clarify the researcher's interpretation of the information shared during the initial interviews.

Are there any potential risks or discomforts that I can expect from this study?

Although there are no anticipated risks for participation in this study, you may feel emotional or experience psychological distress when considering some of the interview questions. However, you may skip any interview questions or terminate the interview at any time, for any reason.

Are there any potential benefits if I participate?

Although there is no direct benefit to participating, you may feel a sense of value related to your ability to share your thoughts and perceptions related to living with a chronic wound in a long-term care setting.

The results of the research may provide a better understanding about the meaning of living with a chronic wound in a long-term care setting, which in turn, could help tailor interventions, treatments, and clinical approaches to ensure positive patient experiences, compassionate care, and improve outcomes in the future.

Will information about me and my participation be kept confidential?

The results of this study may be published in a scholarly book or journal, presented at professional conferences or used for teaching purposes. However, only aggregate data will be used. Personal identifiers will not be used in any publication, presentation or teaching materials.

The written interview transcript will be de-identified and stored confidentially in a password-protected, data analysis software program in numerical format, to ensure confidentiality.

Will the data from my study be used in the future for other studies?

It is possible that de-identified data from this study could be used for future research or shared with other researchers for use in studies, without additional informed consent. De-identified means that any codes and personal information that could identify you will be removed before the data is shared.

What are my rights if I take part in this study?

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.
- Whatever decision you make, there will be no penalty to you, and no loss of benefits to which you were otherwise entitled.
- You may refuse to answer any question/s that you do not want to answer and still remain in the study.

Who can I contact if I have questions about this study?

- **The Research Team:**

If you have any questions, comments or concerns about the research, you can talk to the one of the researchers. Please contact:

Dr. Lisa Borrero (principal investigator) - (317) 791-5944 –

borrerol@uindy.edu

Dr. Rochelle Bourassa – (989) 751-5950 – ferre1rm@cmich.edu

- **The Director of the Human Research Protections Program (HRPP):**
- If you have questions about your rights as a research participant, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the Director of the Human Research Protections Program, by either emailing hrpp@uindy.edu or calling 1 (317) 781-5774 or 1 (800) 232-8634 ext. 5774.
- ***You will be given a copy of this information to keep for your records.***
- **SIGNATURE:** I confirm that I understand the purpose of the research and the study procedures. I understand that the interview will be recorded, and that Dr. Bourassa will access my medical records to obtain information relevant to the study. I understand that I may ask questions at any time and can withdraw my participation without prejudice. I have read this consent form. My signature below indicates my informed consent.

Printed Name of Participant

Participant Signature

Date

Printed Name of Person Obtaining Consent

Signature

Date

Appendix C: Interview Guide

Thank you for your willingness to be interviewed today. As you know, this interview is taking place as part of my doctoral project in the Doctor of Health Science program at the University of Indianapolis. The purpose of my research is to understand what life is like for older adults living in skilled nursing facilities who have a chronic wound. The interview will last approximately 45-60 minutes. Everything you tell me will remain confidential. If you have any questions or concerns throughout the interview, please feel free to ask. You may skip any question(s) you do not feel comfortable answering; you can also stop the interview at any time. Do you have any questions before we begin? Are you comfortable starting the interview now?

Now that we are ready to start, I will begin the audio recording.

1. Tell me what you know about your wound.
 - a. How and when did your wound develop?
 - b. What types of treatments have you received for the care of your wound?
2. Tell me about what it's like living with your wound.
 - a. Tell me a little about what your emotions have been like during the time that you have had your wound?
 - i. Tell me a little bit about your friendships and other relationships.
 - b. Tell me what it's like for you to get around.
 - i. Tell me about your interaction in the facility. Are you participating in activities?
 - ii. Describe your typical day.
3. Tell me about any challenges you have faced resulting from your wound.
 - a. Are you able to be involved in the care of your wound? Why or why not?

- b. Do you feel your wound is being managed properly? Why or why not?
4. Tell me about what successes you have had with your wound care and healing process.
 - a. What helped make that successful?
5. Is there anything else that you would like to share before we end the interview?

I would like to thank you again for your time and participation in this interview. After I review your interview, I will be following up with you to be sure that my interpretation meets what you were saying. Feel free to contact me at any time if you have any questions.