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Empathy in Wound Care: A Scoping Review of Its Role, Impact, and Barriers to Person-Centred Healing

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ABSTRACT

Empathy plays an important role in delivering healthcare, influencing both patient outcomes and satisfaction. However, its role, impact, and barriers to implementation in wound care remain underexplored. This scoping review aims to synthesise existing literature on empathy in wound care, highlighting its contributions to person-centred healing. Following the Joanna Briggs Institute methodology, a systematic search was conducted across multiple databases in English, French, German and Italian. Eighteen studies published between 1946 and 2024 met the inclusion criteria. The review identified empathy as a fundamental element in wound care, improving adherence to treatment, reducing psychological distress, and enhancing wound healing through physiological and psychological mechanisms. However, systemic challenges including time constraints, lack of training, and resource limitations hinder its consistent application in clinical practise. This review highlights the need for enhanced education, training, and systemic support to integrate empathy into wound care. Future research should focus on developing validated strategies to adopt empathetic care, ensuring a holistic approach to patient management.

1 | Introduction

The care of people with wounds requires a sophisticated, multi-dimensional approach due to the complexities and variety in clinical presentation and patient factors [1]. Of these, chronic wounds (CWs) including diabetes-related foot ulcers, pressure ulcers, and venous leg ulcers present the greatest challenge, owing to their complex pathophysiology and slow healing progress. These wounds are most often associated with chronic comorbidities such as diabetes mellitus, cardiovascular disease, autoimmune conditions, peripheral artery disease, and chronic venous insufficiency, thus requiring more sophisticated

treatment options [2]. These wounds may be more complex to manage and require more healthcare resources due to the multiple factors contributing to the underlying causes of chronicity. It is estimated that the prevalence of approximately 2.2 per 1000 people has CW [3], with Australian data estimating approximately 450 000 people at any given time are living with a CW [4, 5], demonstrating the burden of disease on the healthcare system. The costs of managing CW are also high globally. For example, the annual cost of treating acute and CW in the United Kingdom is calculated to be £8.3 billion [6], whilst in Australia it is approximately A\$3 billion [7]. These costs are mainly comprised of the direct medical expenses like hospitalisation,

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Summary

- Empathy is a critical clinical skill that enhances person-centered care in wound management, addressing both the physical and emotional needs of patients, especially those with chronic wounds.
- Empathetic care improves treatment adherence, reduces psychological distress, and promotes trust, leading to better wound healing outcomes and increased patient satisfaction.
- Organisational constraints such as time pressures, insufficient training, and resource limitations hinder the consistent application of empathy in clinical practise.
- Empathy facilitates the inclusion of psychological, social, and emotional dimensions into wound care, ensuring a more holistic approach to managing chronic wounds and improving quality of life for patients and their families.

specialist consultation, and wound care materials and the indirect costs like loss of productivity and informal carer's burden [8]. In addition to this financial burden, CWs have an adverse effect on the person's quality of life and lead to pain, limited movement and social isolation. This burden and complexity in the delivery of wound care calls for the establishment of efficient prevention programmes and holistic management to improve outcomes, all whilst reducing the financial burden to the health system.

Empathy is a critical component in acquiring comprehensive patient information, essential for accurate wound assessment, the development of individualised treatment plans and patient engagement. When patients perceive genuine understanding from healthcare providers, they are more likely to share details about their symptoms, routines, and challenges, facilitating the identification of key barriers to wound healing, such as nutrition, mobility, psychological health and social support [9–11].

However, to fully understand the role of empathy in healthcare, it is important to distinguish it from related concepts like sympathy and compassion, which, although often used interchangeably in healthcare literature, represent distinct constructs with different implications for patient care [12–14]. According to Sinclair et al. [15], sympathy is described as an unwanted, pity-based response to a distressing situation, characterised by a lack of understanding and self-preservation of the observer. Patients often perceive sympathy as superficial and unhelpful, leading to feelings of demoralisation and emotional distance [16]. In contrast, empathy is experienced as an effective response that acknowledges and attempts to understand an individual's suffering through emotional resonance, promoting a deeper connection between healthcare providers and patients [15]. Compassion enhances the key facets of empathy whilst adding distinct features of being motivated by altruism, proactive engagement, and small, supererogatory acts of kindness aimed at alleviating suffering [16, 17]. Unlike sympathy, empathy and compassion are beneficial in healthcare contexts, with compassion being the most preferred and impactful according to patient perspectives [15].

Empirical evidence indicates that empathetic wound care improves clinical outcomes through psychological and physiological mechanisms [18]. Psychologically, empathy fosters trust and emotional security, reducing anxiety and encouraging treatment adherence, especially important for CWs requiring prolonged care [19]. Physiologically, stress and emotional distress hinder immune function and tissue repair, making empathetic engagement vital in addressing both emotional and physical needs [11, 20, 21]. There are proposed physiological mechanisms behind empathetic care and the body's healing responses. Several studies have shown that reduced levels of stress can result in improved circulation, increased oxygenation of tissues, and a more adequate immune response, all major components in the process of wound repair [22–25].

Empathetic care enhances patient adherence to treatment plans and improves pain management by acknowledging patients' subjective experiences, thereby increasing satisfaction and reducing distress [9, 10]. Integrating empathy into clinical practise not only improves the quality of life for patients with CWs but also optimises healthcare resource use. Combining clinical competence with compassionate care effectively addresses the complex challenges of CW management in modern healthcare systems [9, 11]. Moreover, empathetic care is likely to result in increased shared decision-making between patients and clinicians. If a person feels valued and heard, they are more likely to take an active part in the discussion about their treatment options, preferences and goals. This collaborative approach not only respects the patient but also ensures that care plans are more appropriately designed to meet their specific needs and circumstances with better adherence and satisfaction with care [26]. Empathy, therefore, is much more than an emotional experience; it is a critical clinical skill that greatly enhances the effectiveness of wound care. In a broader caregiving framework supporting both mental health and physical recovery, empathy plays a crucial role in improving the quality of communication between patients and providers, alleviating stress, and encouraging patient engagement [27]. This clearly indicates the need to integrate empathetic approaches into the education and professional development of healthcare providers to bring about optimal outcomes in wound management and all other spectrums of care.

Whilst the importance of empathy in the healthcare sector is widely recognised, its specific impact on wound care remains relatively unexplored. This clearly indicates the need for a deeper investigation into the nature of the relationship between empathy and clinical outcomes in wound care. To address this gap, the aim of this scoping review is to search and synthesise the existing literature to answer the following questions:

1. What is the role of empathy in wound care?
2. What is the impact of healthcare providers' empathy on healing outcomes and patient satisfaction in wound care?
3. What are the barriers to providing empathic wound care?

2 | Materials and Methods

This scoping review followed the Joanna Briggs Institute (JBI) methodology [28] to systematically map the types of available evidence on empathy in wound care. The review was reported in

accordance with the PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews) checklist to ensure transparency and completeness [29]. The protocol has previously been published [30]. The scoping review was registered with the Open Science Framework (OSF) (<https://doi.org/10.17605/OSF.IO/QZ3CH>).

2.1 | Search Methods

2.1.1 | Eligibility Criteria

To identify the concepts studied and create the eligibility criteria, the PCC (Population, Concept, Context) framework [28] was used:

Population: Literature on health professionals, patients, and caregivers involved in wound care was included.

Concept: The focus was on the role of empathy in wound care, exploring its impact on outcomes such as patient satisfaction, wound healing and quality of life. Additionally, barriers to delivering empathetic care in wound management were investigated.

Context: All settings where wound care is provided were included to broaden the scope of the review. These settings encompassed healthcare facilities, patient homes, and aged care environments, without imposing any geographical restrictions.

We included all full-text publications using quantitative, qualitative and mixed methods. Literature reviews, policies, protocols, and grey literature, including information on empathy in wound care, that provide commercially unbiased information, were included. These included conference abstracts, theses, electronic books, government reports, and clinical practise guidelines and policies. Commentaries, editorials, opinion papers, and studies that did not explore empathy in wound care were excluded. Publications in English, German, French, or Italian were also included in the analysis. Considering the broad interest in the role of empathy in healthcare, no time limit was imposed on search results.

2.1.2 | Search Strategy

The search strategy was developed in collaboration with a specialist reference librarian and was guided by the 2015 guidelines for the Peer Review of Electronic Search Strategies (PRESS) [31]. We used the PCC method [28] to identify relevant items for our search strategy. First, we identified initial keywords based on our knowledge of the field. Second, an exploratory search of the Medical Literature Analysis and Retrieval System Online (MEDLINE via PubMed), Cumulative Index to Nursing and Allied Health Literature (CINAHL) (EBSCO platform), Embase, Scopus, and APA PsycINFO databases was performed to identify keywords in the titles, abstracts, thesaurus (MeSH), or sub-headings. Third, all the identified keywords were combined to provide a complete search strategy (see Table 1). The research strategy, including all keywords, was adapted for each database using Boolean operators ‘AND’ and ‘OR’, truncation, wildcards, quotation marks and proximity searches.

TABLE 1 | Full search strategies.

Search MEDLINE	Search query
1	empathy.mp. or exp. Empathy/
2	exp Diabetic Foot/or exp. Wound Healing/or exp. “Wounds and Injuries”/ or exp. Pressure Ulcer/or wound care.mp.
3	1 AND 2
Search CINAHL Complete (via EBSCO)	Search query
1	(MM “Empathy”) OR “empathy” OR (MH “Caring+”) OR (MH “Compassion”)
2	(MH “Wound Care+”) OR “wound care” OR (MH “Surgical Wound Care+”) OR (MH “Wounds and Injuries+”) OR (MH “Fungating Wounds”) OR (MH “Wounds, Penetrating”) OR (MH “Wounds, Nonpenetrating+”) OR (MH “Wounds, Chronic”) OR (MH “Wounds, Stab”) OR (MH “Wound Care (Iowa NIC)+”) OR (MH “Wound Care (Saba CCC)+”)
3	1 AND 2
Search APA PsycINFO (via OVID)	Search query
1	TITLE-ABS-KEY (empathy)
2	TITLE-ABS-KEY (wound AND care)
3	(TITLE-ABS-KEY (empathy) AND TITLE-ABS-KEY (wound AND care))

Note: Full search strategies for MEDLINE, Embase, APA PsycINFO (via OVID) database (January 1st 1946 to September 30th 2024). Filters: none. Number of articles: Medline: 379; Embase: 713; APA PsychINFO: 2 (n_{tot} = 1094). Full search strategies for CINAHL Complete (via EBSCO) database (January 1st 1946 to September 30th 2024). Filters: none Number of articles: 452. Filters: none. Number of articles: 452. Full search strategies for Scopus database (January 1st 1946 to September 30th 2024). Filters: none. Number of articles: 136.

The searches were conducted on September 30th, 2024. The protocols were replaced with a completed study where possible. The citation lists of all selected sources of evidence were manually searched for additional articles. This also allowed the inclusion of newly published eligible literature. No ethics approval was required as we used data from publicly available platforms with no risk of participant identification.

2.1.3 | Data Charting Process and Data Items

Data included in the selected sources of evidence were independently extracted by two reviewers in Covidence software (Veritas Health Innovation, Melbourne, Australia).

Bibliographic records were collated in an EndNote X20 library, where duplicates were identified and removed. The remaining references were then imported into Covidence to facilitate systematic screening and data management.

A data extraction form was designed and piloted. Data from the included studies were extracted using Elicit [32], an artificial intelligence tool, and subsequently verified for accuracy and completeness by two reviewers (SP, AS). This process utilised an electronic data collection form developed collaboratively by SP, TM and PT. The information extracted encompassed study details (e.g., study ID, authors, year, journal), study methods (e.g., study aims, setting, design, outcome measures, data analysis methods), and results (e.g., descriptions of empathy). In cases where data was unclear or incomplete, the authors were contacted for clarification. Any discrepancies between the reviewers were resolved through discussion, and if necessary, a third reviewer (PT) was involved to ensure consensus.

In accordance with the methodology adopted and considering the purpose of this scoping review, we did not critically appraise the included sources of evidence, nor did we conduct an analytical synthesis of the results [28, 29].

2.1.4 | Synthesis of Results

We utilised a systematic approach to collate and summarise the findings. Initially, relevant data from each included study were extracted using the piloted data extraction form. This included key information such as study characteristics (author, year, country, study design), population details (patient demographics, clinical settings), definitions and measures of empathy, and outcomes related to wound care (healing rates, patient satisfaction, quality of life). For each source, information was extracted on how health care providers utilised or could utilise the applications, their role in the development and evaluation processes, and the reported outcomes at the patient, nurse and healthcare system levels.

Once the data were extracted, they were categorised into thematic areas to facilitate a structured synthesis. These thematic areas encompassed the role of empathy in clinical interactions, the impact of empathy on patient outcomes, and barriers to expressing empathy in wound care. A narrative synthesis was then conducted to summarise the findings within each thematic area. This synthesis highlighted common themes, patterns, and divergences across all the included studies. Special attention was given to how empathy was conceptualised and measured, as well as the contextual factors influencing its practise in wound care.

Where applicable, quantitative data on outcomes related to empathetic care (such as wound healing rates and patient satisfaction scores) were integrated into the narrative synthesis. Descriptive statistics were used to summarise these data, and comparisons were made to identify trends and gaps. The synthesis also considered the context in which empathy was practised, including healthcare settings (hospitals, community care), cultural factors and healthcare provider roles. This contextual analysis aided in understanding the applicability and transferability of the results. These results were presented using tables

and diagrams to provide a descriptive and graphic overview, supporting the narrative synthesis and describing their relationship to the review questions.

2.1.5 | Protocol Changes

This scoping review adhered fully to the published protocol [30], with no modifications or deviations.

3 | Results

3.1 | Selection of Sources of Evidence

The search strategy initially identified 1682 sources of evidence, with 1672 remaining after the removal of duplicates. A total of 1508 sources (90.2%) were excluded based on their titles or abstracts. From the remaining 164 publications, 146 (89.0%) were excluded after a full-text screening. Ultimately, 18 sources of evidence met the eligibility criteria (see PRIMSA Flowchart: Figure 1).

3.2 | Characteristics of Sources of Evidence

Eighteen studies published between 1946 and 2024 met the inclusion criteria (see Table 2). Eleven were qualitative [33–43], two quantitative [44, 45], one mixed-methods study [46], one commentary [47] and three reviews/overviews [48–50]. Study settings varied widely, including trauma-surgical wards, diabetes clinics, outpatient departments and counsellor education programmes. Participants ranged from patients with CWs to nurses, podiatrists and healthcare providers. Most of them are based in Europe [35–39, 43–47], whilst the rest span from the Middle East, namely Iran [34, 41], to the Americas [33, 42, 48, 49], Australia [50] and Ukraine [40] (see Table 2).

3.3 | Synthesis of Results

All sources of evidence were included in this review to enable a comprehensive scoping of the existing literature to understand the role of empathy in wound care [33–50].

3.3.1 | The Role of Empathy in Wound Care

Empathy emerged as a central theme in enhancing patient care outcomes across multiple studies. Empathetic care during dressing changes was highly valued by older patients with venous leg ulcers, emphasising the importance of emotional support in wound management [35]. Wound, ostomy and continence nurses demonstrated how empathy is embedded in holistic wound care by balancing technical expertise with emotional sensitivity [33]. The management of malignant fungating wounds in oncology nursing further highlighted the essential role of empathy in addressing both physical and emotional challenges [42]. Moreover, the focus on meeting family support needs, particularly in conditions such as Epidermolysis Bullosa, revealed an additional critical dimension of empathetic care [50].

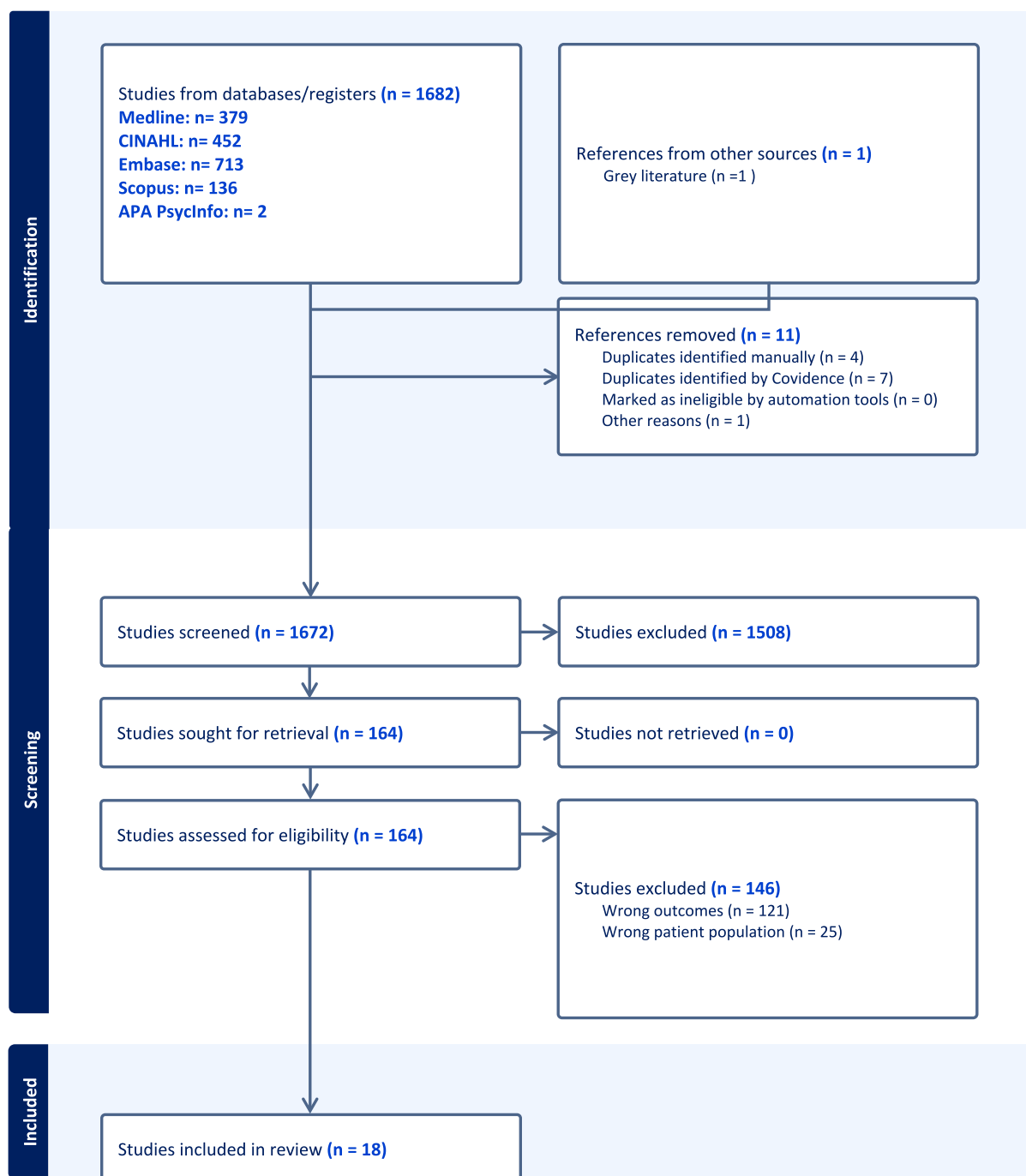


FIGURE 1 | PRISAM flow chart.

3.3.2 | Impact of Empathy on Healing Outcomes and Patient Satisfaction

The included studies consistently reveal a strong correlation between empathy and improved clinical outcomes, as well as higher levels of patient satisfaction. In trauma surgery, one study reported that patients who perceived their surgeons as empathetic experienced better subjective treatment outcomes [44]. Similarly, amongst intensive care unit (ICU) patients with pressure ulcers, empathy was shown to alleviate psychological distress and foster trust between patients and healthcare providers [41]. Another qualitative study demonstrated that diabetic foot ulcer patients experienced improved mental health and greater

engagement in their care when healthcare providers exhibited empathetic behaviour [34]. Furthermore, training podiatrists in motivational interviewing, a communication technique rooted in empathy, enhanced their ability to promote patient participation in self-care practises [46].

3.3.3 | Barriers to Providing Empathic Wound Care

Barriers to delivering empathetic care were a recurring theme across several included studies. Organisational constraints, such as heavy workloads, time pressures, and unsupportive care structures, were reported as significant obstacles to providing

TABLE 2 | Summary of included studies.

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Steinhausen et al. 2014, Germany	To examine whether trauma surgery patients' judgement of their treatment outcome is related to physician empathy behaviour.	- Setting: Trauma-surgical ward at a level one trauma center in Germany - Participants: Trauma patients aged 18–70, hospitalised for at least 5 days - Data Collection: Initial and follow-up questionnaires assessing treatment outcome and physician empathy - Analysis: Logistic regression and correlation analyses using SPSS software	The study is a cross-sectional analysis using logistic regression to examine the relationship between physician empathy and subjective evaluation of medical treatment outcomes amongst surgery patients, based on surveys conducted 6 weeks post-discharge.	Subjective evaluation of medical treatment outcome (SEMTO)	Statistical analyses were conducted using SPSS (Version 19). Methods included logistic regression to assess the correlation between physician empathy and SEMTO, Spearman correlation analyses to identify associations amongst variables, and Chi-square, Mann-Whitney-U, and t-tests to check for significant differences between groups. Different models in logistic regression included variables such as age, gender, high school education, living with a partner, length of stay in hospital, injury severity, existence of an extremity injury, mental disorder, and physician empathy.	- Physician empathy is a significant predictor of positive subjective evaluation of medical treatment outcomes in trauma surgery patients. - Higher ratings of surgeon empathy are associated with more positive patient evaluations of their treatment outcomes. - The quality of interaction between patients and surgeons, including emotional care, is crucial for higher patient-reported treatment success.
Sylvia et al. 2010, United States of America	To explore the meaning of being a wound, ostomy, and continence (WOC) nurse engaged in wound care practise	The study was conducted with 6 WOC nurses in various care settings, including acute, rehabilitation, clinic, hospital, and academia. Interviews were conducted either at the participants' places of employment or in neutral locations such as hotel rooms over a 12-month period.	The design is a qualitative study using a Heideggerian hermeneutic phenomenological approach with unstructured interviews to explore the lived experiences of WOC nurses.	Thematic understanding and description of the WOC nursing experience	Heideggerian hermeneutic phenomenologic framework; interpretive analysis involving immersion in the text, data transformation, and thematic analysis; use of the hermeneutic circle for repeated analysis; thematic analysis involving identifying phrases, defining concepts, and labelling them; confirmability through auditability, credibility, and fittingness; review by a nurse epidemiologist for bias.	- The study identified eight themes that describe the lived experiences of WOC nurses, that are the essence of practise, holistic approach, the dichotomy (nurse and patient), art of wound care, Growth in practise, allure of the challenge, acknowledging limits, teaching. - These themes provide a rich description of WOC nursing as a specialty that combines art and science in wound healing. - The findings contribute to defining the role and positioning of WOC nursing within the broader nursing field.

(Continues)

TABLE 2 | (Continued)

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Coaston et al. 2022, United States of America	The aim of this paper is to describe how counsellor education programmes can integrate self-compassion into the curriculum to support personal and professional growth and foster self-care for counselling trainees, particularly those who identify as "wounded healers".	The setting is counsellor education programmes where the wounded healer framework and self-compassion are integrated into the curriculum through classroom exercises, course assignments, and programmatic efforts to promote wellness and self-care.	The design is a descriptive article that outlines the use of a wounded healer framework to integrate self-compassion and wellness into counsellor education through various interventions and exercises.	Wellness, self-care, and self-compassion	The paper is theoretical and does not describe empirical data analysis methods	- Integrating a wounded healer framework in counsellor education can shift counsellors away from dualistic thinking and enhance empathy. - Incorporating self-compassion into the curriculum helps manage stress, promote self-care, and reduce burnout amongst counsellors. - Adopting a wellness philosophy in counsellor education can prevent impairment and support overall wellness.
Aalaa et al. 2021, Iran	The aim of the study was to explore the views and expectations of patients with diabetes and diabetic foot ulcers (DFU) regarding the provision of DFU preventive and therapeutic care.	- Qualitative research design using Focus Group Discussions (FGD) - Conducted at the Diabetes and Metabolic Diseases Clinic of Tehran University of Medical Sciences (TUMS) - Participants were diabetic patients from primary and specialty care centers - Sessions held in a classroom within the clinic - Discussions recorded and notes taken for data collection - Moderated by an experienced researcher not part of the healthcare system	The study used a qualitative design involving focus group discussions with diabetic patients to explore their views on diabetic foot care.	Patients' views and expectations regarding DFU preventive and therapeutic care, including themes of defective education and ineffective communication, multi-faceted challenges of wound healing, and full support	Conventional content analysis with three phases: preparation (transcription and division into units of analysis), organisation (inductive process to select semantic units and assign open codes, classification into subthemes and themes), and analysis report (reporting themes, sub-themes, open codes, and key statements).	- Patients identified defective education and ineffective communication as major barriers in diabetic foot care and prevention. - Financial burdens and emotional stress were significant challenges in wound healing for diabetic foot ulcer patients. - Patients emphasised the need for full support, including empathy and patient-centered care from healthcare providers.
Snyder 2006, United Kingdom	An aim is not described	The paper is an academic overview of concepts/models and research related to caring for lower extremity wounds in the elderly, focusing on psychosocial issues. It does not describe a specific empirical study setting.	The paper is a theoretical and conceptual overview. It discusses psychosocial issues in wound management, particularly in the elderly, using qualitative analysis.	The paper is a theoretical and conceptual overview and does not measure specific outcomes	The paper does not discuss specific data analysis methods or interventions	- Venous ulcer disease is multifactorial, with significant psychosocial impacts on patients' quality of life. - Understanding psychological models is crucial for addressing the psychosocial effects of chronic illness in wound management. - Compliance issues are prevalent in wound care, necessitating a partnership approach between patients and clinicians.

(Continues)

TABLE 2 | (Continued)

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Ebbeskog et al. 2005, Sweden	The aim of the study was to describe the lived experiences of older patients with venous leg ulcers, during dressing changes as out-patients with a focus on their concerns about care interventions.	- Location: Metropolitan area of Sweden - Participants: Older individuals with venous leg ulcers - Data Collection: Research interviews conducted in participants' homes and at a clinic - Ethical Approval: Ethics Committee at Karolinska Institutet	The study design is qualitative, using interpretative phenomenological analysis to explore the lived experiences of older patients with venous leg ulcers during dressing changes.	Lived experiences of older patients with venous leg ulcers during dressing changes	Data were analysed using an interpretative phenomenological method developed by Benner, involving thematic analysis and identification of paradigm cases. The process included dividing interview texts into meaning units, interpreting and condensing these units, organising them into sub-themes, and formulating broader themes.	- Older patients with venous leg ulcers experience dressing changes as more than a medical procedure, emphasising the need for skilled, compassionate care. - Patients desire a multidimensional approach to wound care that includes both technical proficiency and attention to their personal experiences and dignity. - A lack of engagement from nursing staff can lead to feelings of objectification and distrust in the care process.
Ribu et al. 2004, Norway	To explore the nursing care experienced by patients with diabetes who have a foot and/or leg ulcer.	- Qualitative study with in-depth interviews. - Conducted in patients' homes. - Participants received district nursing care. - Interviews lasted 45 min to 2 h. - Data analysed using Kvale's thematic and meaning analysis. - Participants recruited by district nurses in a large municipality	Qualitative study using in-depth interviews and thematic analysis.	Patients' experiences and perceptions of nursing care	Kvale's thematic and meaning analysis	- Patients with diabetes and ulcers often become "expert patients" not following the treatment plan due to nurses uncertainty which they became able to identify due to. - Patient were treated by fragmented care, as a variety of nurses with a variety of competence and confidence treated them. - They could feel to have an impersonal nursing care, when they felt considered just as a number or an object. - Continuity and personal engagement from nurses are crucial for effective treatment and patient satisfaction. - Understanding the emotional and lifestyle impact of ulcers on patients is vital for successful treatment.

(Continues)

TABLE 2 | (Continued)

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Jongebloed-Westra et al. 2022, the Netherlands	The study aims to observe and analyse the application of motivational interviewing (MI) in consultations carried out by MI-trained and non-MI-trained podiatrists, and to explore the podiatrists' attitudes and experiences towards the use of MI.	- Mixed-methods study design. - Quantitative component: Audio recordings of clinical consultations scored with MITI. - Qualitative component: Semi-structured in-depth interviews with MI-trained podiatrists. - Participants: 18 MI-trained and 4 non-MI-trained podiatrists at Voetencentrum Wender, Netherlands. - Training: Three-day basic MI training, with one group receiving an additional booster session. - Part of a larger RCT. - Ethical approval obtained from relevant committees	The study is a mixed-methods design combining quantitative analysis of recorded consultations and qualitative interviews to explore the application and experiences of motivational interviewing by podiatrists.	MI-related communication skills: empathy, change talk, affirmation, simple reflections (assessed by MITI coding system)	Quantitative data analysis using IBM SPSS Statistics 27.0; qualitative data analysis using ATLAS.ti 8.4; Pearson chi-square tests for nominal data; Mann-Whitney U tests for ordinal and continuous variables; thematic analysis for qualitative data with interrater agreement calculation.	- MI-trained podiatrists maintained a solid beginner proficiency level in MI principles 6 to 22 months post-training. - MI-trained podiatrists performed significantly better than non-MI-trained podiatrists in partnership and cultivating change talk. - The training effectively improved specific MI-related skills, as reflected in both quantitative scores and qualitative feedback.
Pramod et al. 2024, United Kingdom	The study aim was to gain insights into the nursing professionals who deliver care to people with malignant fungating wounds (MFW) in the UK, including their treatment aims, the treatments used, their confidence in delivering care, and the barriers and facilitators they face.	- The study used an online anonymous questionnaire distributed to UK nurses involved in wound care for malignant fungating wounds. - Convenience sampling was employed, and data were collected over 4 weeks using QualtricsXM and analysed with SPSS. The study targeted various nursing specialties through social media and professional organisations.	The study used a cross-sectional survey design with an online anonymous questionnaire distributed to UK nurses involved in wound care for malignant fungating wounds, analysed using descriptive statistics.	Nursing practises in MFW care, treatment aims (wound odour, exudate, pain, bleeding, infection prevention), healthcare professionals' confidence, barriers and facilitators in MFW care	The data analysis methods included recording and summarising responses using QualtricsXM software, analysing data with SPSS Version 28.01.0, using descriptive statistics for numerical data, summarising binary and categorical variables as percentages, summarising continuous data with mean, standard deviation, and median with interquartile range, and analysing free text responses using a thematic approach.	- This is the first study to explore malignant fungating wound care practises in the UK. - A range of nurses are involved in care delivery with variations in the treatments used. - Lack of access to MFW care training, resources, and standardised guidelines may impede care delivery.

(Continues)

TABLE 2 | (Continued)

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Lagerin et al. 2017, Sweden	The study aim is to investigate district nurses' experiences of caring for leg ulcers in accordance with clinical guidelines.	- Qualitative study using grounded theory method. - Conducted at seven primary health care centers in Stockholm, Sweden. - Involved 30 district nurses with experience in leg ulcer care. - Data collected through semi-structured group interviews. - Study period from 2006 to 2015.	The study used a grounded theory design, involving group interviews with district nurses to explore their experiences with leg ulcer care in accordance with clinical guidelines.	Development of a theoretical model describing district nurses' strategies for adhering to clinical guidelines for leg ulcer care	Grounded Theory Method (GTM) with stages of open coding, focused coding, theoretical coding, and elaboration of the core process.	- District nurses face significant obstacles in adhering to clinical guidelines for leg ulcer care, including complex wound treatment, arduous conditions, and unsupportive organisational structures. - A theoretical model was developed illustrating how district nurses use compensating, motivating, and compromising strategies to overcome these obstacles. - Continued training and self-motivation are crucial for district nurses to manage prolonged wound treatment effectively.
Ireland et al. 2021, Australia	The study aim is to identify the support needs of parents of a child with Epidermolysis Bullosa (EB) and to assess the impact EB has on the family unit, irrespective of subtype or condition severity.	- Scoping review methodology guided by Arksey and O'Malley's framework. - Comprehensive literature search including qualitative, quantitative, and grey literature. - Systematic process following PRISMA-ScR guidelines. - Exclusion criteria: non-parent caregivers, overly medical/psychological focus. - Initial identification of 255 articles, reduced to 11 after screening. - Methods in included studies: qualitative (interviews), quantitative (questionnaires), mixed methods.	The design is a scoping review guided by the five-stage framework approach described by Arksey and O'Malley, with results reported following the PRISMA-ScR guidelines.	Support needs of parents (emotional, practical, social, physical, informational, psychological)	The paper is a scoping review and does not involve direct interventions or data analysis methods applied to participants	- Emotional needs are the most common support need for parents caring for a child with EB, highlighting significant emotional stress and challenges. - There is a lack of existing research on the support needs of parents with a child with EB, necessitating more attention to provide adequate care. - A novel parent support needs framework is proposed to guide future care provisions for families with a child with EB.

(Continues)

TABLE 2 | (Continued)

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Lindahl et al. 2008, Sweden	The aim of the study was to illuminate the meaning of caring for people with malodorous exuding ulcers.	- Convenience sample of 10 nurses with experience in caring for malodorous exuding ulcers. - Participants worked in primary health or hospital care in Sweden. - Data collected through narrative interviews conducted from late 2002 to early 2005. - Interviews conducted at locations chosen by participants. - Phenomenological-hermeneutic method used for data interpretation.	The study used a phenomenological-hermeneutic design influenced by Ricoeur involving narrative interviews conducted from late 2002 to early 2005.	The meaning of caring for people with malodorous exuding ulcers, focusing on the psychological and emotional experiences of nurses	Phenomenological-hermeneutic interpretation inspired by Ricoeur (1976), involving naive reading, structural analysis, and critical reading to form themes and sub-themes.	- Caring for patients with malodorous exuding ulcers presents significant emotional and professional challenges for nurses, requiring them to manage contamination and patient suffering. - Nurses need extended knowledge, skills, and multidisciplinary team support to alleviate both patient and personal suffering effectively. - Improved interprofessional cooperation and organisational support are essential to provide optimal care and prevent emotional desolation amongst nurses.
Fox et al. 2009, United Kingdom	The study aim is to explore how GPs experience personal illness and how this impacts their medical practise, as well as to provide insights that could inform medical education	- Semi-structured interviews with 17 GPs who experienced significant illness. - Data analysed using interpretative phenomenological analysis (IPA). - Maximum-variation sampling strategy for diverse participant selection. - Participants recruited from two primary care trusts (PCTs) in England. - Interviews conducted in settings chosen by participants (homes, practises, hospital). - Audio-recorded and transcribed interviews, analysed with NVivo software. - Ethical approval from Wiltshire NHS Research Ethics Committee.	The study used a qualitative design involving semi-structured interviews with general practitioners who had experienced significant illness, analysed through interpretative phenomenological analysis (IPA).	Empathy and empowerment	Interpretative Phenomenological Analysis (IPA) using NVivo software for data management and coding, with themes generated and organised into subcategories and overarching categories through team consensus.	- Personal illness experiences amongst GPs enhance their empathy towards patients, particularly those with similar conditions. - These experiences lead to changes in practise aimed at empowering patients by acknowledging their vulnerability and facilitating better communication. - The study suggests that these insights have implications for medical training, emphasising the importance of empathy and empowerment in doctor-patient relationships.

(Continues)

TABLE 2 | (Continued)

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Wanner, 2021, Ukraine	The main aim of the study is to analyse the religiously infused talk therapy provided by military chaplains to soldiers as they transition to civilian life, with the goal of transforming soldiers into high-functioning, religiously committed, patriotic, moral citizens.	- Ethnographic research conducted in Ukraine. - Focus on religious practises and their expansion into public domains since the war. - Part of a larger project started in 2014. - In-depth interviews with six military chaplains (Orthodox Christian and Byzantine Catholic) in 2018 and 2019. - Comparative interviews with healthcare providers, a psychiatrist, psychologists, and volunteers at a psychiatric hospital. - Therapeutic encounters are dyadic and private. - Restricted access to military hospitals for the researcher	The design of the study is a qualitative ethnographic research involving in-depth interviews with military chaplains and other stakeholders to analyse the role of religiously infused talk therapy in the transition of soldiers to civilian life.	Transformation into high-functioning, religiously committed, patriotic, moral citizens; remaking a sense of moral personhood; establishing purpose; addressing existential questions; learning to listen to one's conscience	The data analysis methods involve ethnographic research, including multiple in-depth interviews with military chaplains and healthcare providers, focusing on discursive tactics and topics of inquiry during clergy-soldier interactions. The analysis is qualitative, relying on after-the-fact retelling of conversations and discussions.	- Military chaplains provide religiously infused talk therapy to aid soldiers' transition to civilian life, emphasising empathic care beyond physical healing. - State-sponsored chaplains use religion therapeutically to transform soldiers into committed, moral citizens, integrating religious practises into secular institutions. - The integration of military chaplains reflects a shift from medical models, highlighting their trusted role in addressing social tensions and promoting social healing.
Akbari, et al. 2023, Iran	To elucidate the psychological perceptions of patients with bedsores regarding the nursing care they received in the intensive care unit.	- Setting: Cardiac intensive care units of Shahid Chamran Cardiac Hospital in Isfahan, Iran - Participants: 10 patients with heart disease. - Data Collection: Semi-structured in-depth interviews conducted from August 2019 to March 2020 - Data Analysis: Qualitative content analysis using an inductive approach. - Tools: MaxQDA 10 software for data management. - Trustworthiness: Ensured through diverse participant selection and member checking	Descriptive qualitative study using phenomenological approach and content analysis based on semi-structured interviews.	Psychological perceptions of nursing care, including missed or delayed nursing care, empathetic care, and patient trust and hope	Data were analysed using conventional qualitative content analysis based on a method proposed by Graneheim and Lundman. An inductive method was used, involving steps such as determining the content of the analysis, defining units of analysis, performing initial coding, classifying codes into subclasses, and forming subcategories and main categories. Data management and analysis were facilitated using MaxQDA 10 software.	- The study identified three main categories affecting the psychological understanding of nursing care: missed or delayed nursing care, empathetic care, and patient trust and hope. - Patients with pressure ulcers expect comprehensive attention to their wounds, which is crucial for their psychological well-being. - Empathy, visibility, trust, and hope are essential psychological issues for these patients, necessitating comprehensive emotional support.

(Continues)

TABLE 2 | (Continued)

Authors, Year of publication, Country	Aim	Setting	Design	Outcome	Data analysis methods	Key findings that relate to the scoping review questions
Jeffrey, 2016, United Kingdom	This paper is a commentary on the importance of empathy in clinical care and does not report on any specific study or intervention	The paper is commentary and doesn't describe a study setting)	The paper is commentary and aimed at stimulating debate about empathy in clinical practise.	The paper is commentary and doesn't discuss an intervention with measurable outcomes)	The paper is commentary and doesn't discuss data analysis methods or interventions	- There is a current empathy deficit in clinical care, which is a significant concern. - The paper advocates for a balanced approach to empathy, avoiding both detachment and emotional overwhelm. - A broad view of empathy, integrating emotional and cognitive elements, is essential for effective medical practise.
Firmino et al. 2014, Brazil	To analyse the accounts of nurses who undertake the dressing of fungating wounds in women with breast cancer, and to outline contributions to the nursing care.	- Qualitative research using Focus Group interviews. - Conducted in a federal public hospital in Rio de Janeiro specialising in breast cancer treatment. - Data collected using a semi-structured script during a single 60-min session in a private room. - Participants were nurses with at least 6 months of experience in dressing fungating wounds, working in the outpatient department's dressings room.	The study is a qualitative research design using focus group interviews and content analysis.	Nurses' experiences and perceptions in caring for women with breast cancer and fungating wounds	Bardin's technique of categorisation, involving pre-analysis, exploration of material, and treatment and interpretation of results.	- Nurses experience satisfaction, autonomy, challenges, and professional frustrations in caring for women with malignant fungating wounds. - They face difficulties in managing symptoms, particularly controlling odour, and seek better collaboration with medical teams. - Specialised training in Oncology Nursing and compassionate care, including therapeutic groups, are essential for improving nursing practises.
Hollinworth et al. 2002, United Kingdom	The study aim was to determine if teaching counselling skills to nurses caring for patients with wounds could enable them to better support their patients holistically.	- Purposive sampling of 50 qualified nurses who care for patients with wounds. - Participants represented both acute and community settings. - Data collection involved research diaries for 3 weeks before and after a 1.5-h counselling skills workshop. - Focus groups were conducted 2–3 weeks after diary completion to validate findings. - Participants included nurses from acute and community hospitals, practise nurses, community nurses, and those in hospices and nursing homes.	The study used a qualitative design involving purposive sampling of nurses, who participated in a workshop and recorded their experiences in research diaries before and after the intervention, followed by focus group discussions for data validation.	Understanding and provision of psychological support for patients with wounds	1.5-h workshop based on a modified version of Egan's three-stage model for counselling skills. All participants received this intervention. The intervention was conducted once, followed by 3 weeks of diary writing before and after the workshop, and focus group interviews 2–3 weeks later.	- After attending a counselling skills workshop, some nurses showed a significant improvement in understanding and providing psychological support to patients with wounds. - Not all nurses were able or willing to integrate counselling skills into their practise, indicating variability in adoption. - Research diaries and reflective tools effectively explored how nurses provide holistic care, revealing both successes and challenges.

empathetic and guideline-adherent care [37]. Fragmented care systems and a lack of continuity, where patients were treated by multiple providers, led to impersonal and inconsistent treatment experiences, particularly amongst patients with diabetic ulcers [36].

Training deficiencies were another prominent barrier. Many healthcare providers lacked sufficient education in addressing the emotional and psychological dimensions of wound care, which hindered their ability to meet the holistic needs of patients. Even when training was provided, its integration into routine clinical practise varied significantly [43]. Emotional fatigue and professional frustration further exacerbated these challenges, particularly in managing complex wounds, such as malignant fungating wounds [38, 42].

Financial and resource limitations also restricted the delivery of empathetic care. Limited access to training programmes, standardised guidelines, and adequate resources impeded providers' ability to deliver high-quality care [34, 45]. The emotional toll on healthcare providers managing socially and clinically complex cases, as highlighted in studies like Wanner [40], emphasised the need for enhanced organisational support, better resource allocation, and interprofessional collaboration to enable more consistent and empathetic wound care.

4 | Discussion

This scoping review sought to scope the existing literature on the role of empathy in wound care, examining its significance, impact on patient outcomes, and barriers to its implementation. Given the complex and multidimensional nature of wound care and management, empathy emerges as a crucial element in ensuring holistic and person-centred care [1].

The literature search for this review spanned over seven decades (1946–2024), demonstrating the intention to capture all relevant literature. However, the studies that met the inclusion criteria were published only within the last two decades. Most of the included sources of evidence come from qualitative research, focusing on patient experiences and healthcare providers' perspectives, with the majority of healthcare providers being nurses. Whilst this provides valuable insight into subjective experiences, there is a gap regarding perspectives from allied health professionals, such as physiotherapists, podiatrists and occupational therapists.

Empathy plays an important role in wound care, addressing the multifaceted needs of patients who often experience chronic pain, limited mobility and social isolation [1, 51]. This scoping review highlights the importance of empathetic care, particularly in complex conditions such as venous leg ulcers and malignant fungating wounds. Emotional support during dressing changes and holistic wound management practises exemplify how empathy bridges the gap between technical clinical expertise and person-centered care [2, 52]. Furthermore, empathetic interactions extend beyond addressing physical needs to involve family support, as seen in conditions like Epidermolysis Bullosa. Such approaches emphasise that wound care requires not only clinical proficiency but also emotional

sensitivity to improve the overall patient experience. The relationship between empathy and positive patient outcomes is well-established in the broader healthcare context and is increasingly recognised in wound care. Empathy raises trust and emotional security, critical factors in enhancing treatment adherence and reducing psychological distress [9, 11]. Stress and emotional distress, which can hinder immune function and tissue repair, are mitigated through empathetic engagement, thereby promoting better wound healing outcomes [19, 53]. Additionally, evidence demonstrates that empathy is linked to improved patient satisfaction, as patients feel valued and understood, encouraging active participation in their care plans [26, 54, 55]. Techniques such as motivational interviewing [56], which emphasise empathetic communication, further demonstrate the potential of empathy to enhance patient engagement in self-care practises.

This scoping review demonstrates that despite its proven benefits, several systemic and individual barriers hinder the consistent application of empathetic care in wound management. Organisational constraints, such as time pressures, staff shortages, and inadequate training, frequently prevent healthcare providers from delivering high-quality empathetic care [26, 57]. The lack of formal education on the psychological and emotional aspects of wound care further limits providers' ability to address holistic patient needs [11, 58]. Additionally, fragmented care systems, where patients are treated by multiple providers, contribute to inconsistent and impersonal care, particularly for chronic conditions like diabetic foot ulcers [59].

Financial and resource limitations impair these challenges, as healthcare systems often prioritise efficiency over personalised care. The emotional charge on providers managing complex wounds, such as malignant fungating wounds, underpins the need for better organisational support and interprofessional collaboration [4]. Addressing these barriers requires systemic changes, including enhanced training programmes, improved resource allocation, and policies that prioritise empathetic care as a cornerstone of clinical practise.

4.1 | Strengths and Limitations

This scoping review provides a comprehensive synthesis of literature on empathy in wound care, highlighting its impact on patient outcomes and identifying barriers to implementation. Although the search strategy covered literature from 1946 to 2024, all included study designs were published within the last two decades. A rigorous search strategy enhances the review's credibility [28, 60]. Additionally, it identifies key research gaps, particularly regarding the physiological mechanisms linking empathy to wound healing and systemic barriers like time constraints and training deficiencies, paving the way for future policy and research initiatives.

A key limitation is the lack of a systematic methodological quality assessment, a standard constraint in scoping reviews [28, 60]. This limits the ability to provide definitive clinical recommendations. The heterogeneity in study designs and outcomes makes direct comparisons challenging, reducing the standardisation of findings. Language restrictions (English, Italian, German

and French) may have excluded relevant non-Western studies, potentially introducing selection bias. Additionally, the predominantly Western sample limits generalisability, necessitating broader international research. Inclusion of literature reviews also posed risks of study duplication, though efforts were made to minimise overlap. Whilst a systematic search was conducted, some papers may have been accidentally omitted.

5 | Conclusions

Empathy is critical in the delivery of quality healthcare, and this extends to wound care. Understanding the feelings and emotions of the people who have wounds, and how living with a wound impacts their daily life, is a basic pre-requisite for empathetic care. Care of people with wounds should be holistic and person-centred, extending beyond the wound itself to the whole person. This way, empathy helps to alleviate the psychological stress of patients and facilitate the process of treatment. The empathy, to a greater extent, rests on the improved ways of communication, such as person-centred communication, the hallmarks of which are trust and shared decision-making, as well as the fact that empathy is happening between the healthcare provider and the patient. Furthermore, the health system evolves to a more humanistic health system that makes patients' existence reliant on adherence to treatment, recovery and quality of life.

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Ethics Statement

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The authors have nothing to report.

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