



Original Article

Establishment of the Traditional Chinese Medicine Nursing Assessment Form Based on the Delphi Method for Chronic Wounds



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Abstract

Background and objectives: The existing wound assessment tools, which are based on modern medical theory, limit the clinical application of traditional Chinese medicine (TCM) nursing. This research aimed to develop a scientific, standardized, and characteristic TCM nursing evaluation form for chronic wounds.

Methods: Based on a literature review and research group discussions, an initial draft of an expert consultation questionnaire, based on literature from the past five years (2017–2021) from databases such as CNKI, Wanfang, VIP, and SinoMed, was formulated. The authority of the experts was expressed using the authority coefficient, derived from self-evaluations, which is critical for ensuring the scientific validity and rationality of the indicator system. After three rounds of Delphi expert consultation, the TCM nursing assessment form for wound surfaces was finalized.

Results: The effective response rate for the three rounds of expert consultation questionnaires was 100%. The judgment coefficient was 0.85, the familiarity coefficient was 0.89, and the authority coefficient was 0.87. The coefficients of variation for the three rounds were 0.172, 0.044, and 0.013, respectively, while the Kendall's coefficients of concordance were 0.406, 0.269, and 0.502, respectively, with statistically significant differences ($p < 0.001$). The final TCM nursing assessment form for wound surfaces included four basic information items, two primary indicators, 17 secondary indicators, and 13 tertiary indicators.

Conclusions: The TCM nursing assessment form integrates TCM syndrome differentiation principles and provides a standardized tool for the assessment of chronic wounds.

Introduction

Chronic wounds represent a significant public health issue, affecting millions of people worldwide, leading to increased patient morbidity, reduced quality of life, and a significant rise in healthcare costs. With the increasing prevalence of conditions

such as diabetes, peripheral arterial disease, and chronic venous insufficiency, the burden of chronic wounds is expected to become increasingly heavy.¹ Effective management strategies are crucial for promoting wound healing, preventing infections, and reducing complications.² As the understanding of wound healing deepens and wound care becomes more specialized and standardized, there remains a lack of satisfactory wound assessment tools.³ In chronic wound care, evaluating the patient's overall health status and wound characteristics plays a central role in developing personalized treatment plans.⁴ Traditional Chinese medicine (TCM) has rich experience in wound management, emphasizing individualized assessment, holistic regulation, and promotion of the body's self-healing capabilities, offering advantages in treatment.⁵ TCM nursing assessments not only focus on local wound conditions but also integrate information about the patient's constitution, visceral function, and emotional factors, providing critical references for formulating comprehensive intervention measures. However, cur-

Keywords: Traditional Chinese medicine; TCM; TCM nursing assessment; Chronic wound; Syndrome differentiation; Delphi method.

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rent clinical wound assessment tools have several limitations. For instance, most tools are based on empirical or modern medical theories, failing to fully reflect the unique advantages of TCM's pattern differentiation and treatment, making it difficult to meet the needs of TCM-specific nursing. The diverse methods of TCM chronic wound care lack a unified evaluation system, leading to difficulties in quantifying therapeutic effects. Some tools focus solely on local wound characteristics (e.g., size, depth, exudate),⁶ neglecting a comprehensive consideration of the patient's overall syndrome (e.g., Qi and blood, Yin and Yang, cold-heat, deficiency-excess). Traditional assessment methods are highly subjective, lacking standardized descriptions of TCM-specific syndrome elements (e.g., wound color, necrotic tissue properties, surrounding skin condition), resulting in poor consistency in assessment outcomes. Existing tools primarily focus on monitoring physiological wound indicators,⁷⁻⁹ overlooking factors such as lifestyle and emotional state under the TCM principles of "harmony between man and nature" and "holistic concept", which limits the precision and comprehensiveness of pattern-based care.

TCM has a long history of understanding chronic wounds and possesses unique advantages in pattern-based care.¹⁰ TCM external treatment methods can be differentiated based on the pathogenesis and local wound conditions, typically categorized into patterns such as damp-heat toxin accumulation, qi and blood deficiency, and spleen-kidney Yang deficiency. Corresponding treatments, such as Rubber Myogenic Ointment, Compound Huangbai Liquid Coating, and Moist Burn Ointment, have been developed for different patterns.¹¹ Clinical evidence shows that TCM external treatments, such as herbal application, herbal soaking, and herbal encirclement techniques, play a significant role in treatment, markedly improving wound healing rates.¹² Given that existing assessment tools fail to highlight TCM's pattern differentiation characteristics, there is an urgent need to develop wound care assessment tools based on TCM theories, with pattern differentiation and treatment as the core. To address this gap, this study aimed to develop a TCM Wound Care Assessment Form for the scientific assessment of chronic wounds.

Materials and methods

Referring to relevant studies, the Delphi method was employed.¹³ Through three rounds of expert consultation, the TCM nursing assessment form for wound surfaces was developed based on expert consensus. This research was approved by the ethics committee of Beijing Hospital of Traditional Chinese Medicine, Capital Medical University (No. 2025BL04-029), and was conducted with the Declaration of Helsinki (as revised in 2024). Written informed consent was obtained from 30 patients in this study.

Establish the research group

First, a research group was established, consisting of 11 members, including six senior-title experts and five intermediate-title colleagues. The research group developed a professional consultation questionnaire (File S1), including an introduction, an indicator consultation table, and a basic information survey for experts (Supplemental file). Purposive sampling was used to establish expert inclusion criteria: (1) Bachelor's degree or higher with a senior or associate senior title; (2) over 10 years of experience in the wound care field or over five years in nursing management; (3) voluntary participation and ability to complete three rounds of consultation. Three rounds of consultation were conducted using paper-based questionnaires for distribution and collection.

In the first round of the Delphi consultation, 21 experienced TCM

medical and nursing experts were invited. The study's purpose and significance were explained, and suggestions for the TCM nursing assessment content for wound surfaces were solicited, leading to a preliminary form. In the second round, feedback and suggestions from the first round were compiled, emphasizing the unique characteristics and advantages of TCM wound surface nursing. In the third round, suggestions from the second round were analyzed, and the form was optimized, resulting in a finalized version.

Their main responsibilities included drafting the assessment form based on literature review, designing the expert consultation questionnaire, organizing and discussing expert feedback, revising the form based on expert opinions, and handling data organization and analysis.

Literature searching and the formulation of an initial draft

An initial draft of the TCM nursing assessment indicator system for wound surfaces was formulated. Literature from the past five years (2017–2021) was retrieved from databases such as CNKI, Wanfang, VIP, and SinoMed, focusing on core journal articles. Search terms included: ulcer, wound, diabetic foot, injury, osteomyelitis, exudate, secretion, skin lesion, periwound, surgery, post-operative, gangrene, necrosis, sickle sore, wound surface, perisore, carbuncle, gangrene, furuncle, and boil. Animal studies, pharmacological studies, and non-wound-related research were excluded. After deduplication, core journal screening, and manual selection, 1,311 articles were included. Through literature review and group discussion, an initial draft of the TCM nursing assessment form was proposed, including two primary indicators, 23 secondary indicators, and 12 tertiary indicators.

The experts' authority coefficient (Cr)

The authority of the experts was expressed using the Cr, derived from self-evaluations, which is critical for ensuring the scientific validity and rationality of the indicator system. The Cr was calculated as the average of the judgment coefficient (Ca) and the familiarity coefficient (Cs), i.e., $Cr = (Ca + Cs)/2$. A Cr value ≥ 0.7 is generally considered reliable. The Ca was assessed across four dimensions: practical experience, theoretical analysis, reference to domestic and foreign literature, and intuitive perception, with scores assigned as follows: practical experience (0.5, 0.4, 0.3), theoretical analysis (0.3, 0.2, 0.1), literature reference (0.1, 0.1, 0.1), and intuitive perception (0.1, 0.1, 0.1). Cs was divided into five levels: very familiar (1), fairly familiar (0.8), generally familiar (0.5), somewhat unfamiliar (0.2), and unfamiliar (0). The coordination among expert opinions, an important measure of consistency, was quantified using the coefficient of variation (CV), Kendall's coefficient of concordance (W), and its significance test.¹⁴ A smaller CV indicates higher coordination and consistency in opinions regarding importance, with a CV typically controlled below 0.35.¹⁵ Kendall's W ranges from 0 to 1, with higher values reflecting greater coordination.

Indicator modifications

Based on the data analysis from the three rounds of expert consultation, combined with expert suggestions and literature review, adjustments were made to the secondary and tertiary indicators to optimize the form for clinical use and avoid overly cumbersome documentation. The specific adjustments are as follows:

Secondary indicator adjustments

1. Name, gender, and age were designated as record items.
2. Allergy history was revised to "topical medication allergy history".

Table 1. Basic information of experts (n = 21, %)

Item	Category	N (%)		Item	N (%)	
Occupation	Doctor	Nurse		Professional Role	Yes	No
	6 (28.6)	15 (71.4)		Professional Role	17 (81.0)	4 (19.0)
Education	Bachelor	Master	Doctorate	Committee Chair	Yes	No
	16 (76.2)	4 (19.0)	1 (4.8)	Committee Chair	5 (23.8)	16 (76.2)
Title	Intermediate	Associate	Senior	Specialist Nurse	Yes	No
	3 (14.3)	9 (42.9)	9 (42.9)	Specialist Nurse	5 (23.8)	16 (76.2)

- Items such as education level, smoking/alcohol history, TCM diagnosis, syndrome differentiation, Western diagnosis, vital signs, ADL score,¹⁶ and Braden pressure ulcer risk score,¹⁷ and Caprini thrombosis risk score were removed to simplify the form.
- Check-box options were added for ease of completion. For past medical history, options were expanded to: diabetes, hypoproteinemia, anemia, immune diseases, malignant tumors, and others. Blood glucose was split into two items—glycated hemoglobin and fasting blood glucose—with specific ranges provided: glycated hemoglobin (<7.0, 7.0–8.5, 8.5–9.5, >9.5), fasting blood glucose (<4.4, 4.4–7.0, 7.1–8.5, 8.6–10.0, 10.1–12, >12).
- Exudate culture options included: *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli*, *Acinetobacter baumannii*, *Enterobacter cloacae*, and others.
- NRS2002 nutrition score options were¹⁸: 0, 1–2, 3–5, >5.
- NRS pain score options were¹⁹: 0, 1–3, 4–6, 7–10.
- Transcutaneous oxygen pressure was added with options: <20, 20–40, >40, to enhance objective evaluation.
- Dietary preference was added to support targeted dietary nursing care, with options: rich/sweet, spicy/salty, raw/cold, fishy/stimulating, vegetarian, and others.
- Considering the practical value of the five tastes corresponding to the five organs and body parts in syndrome-differentiated nursing, “dietary preference” was revised to reflect this relationship, with options: sour, bitter, sweet, spicy, salty, and others.
- To further refine emotional states, “emotional preference” was added as a new secondary indicator, linking the five tastes, five emotions, and five body parts, with options: anger, joy, pensiveness, sadness, fear, and others.
- The “tunneling” indicator was removed to simplify the assessment process.

Tertiary indicator adjustments

Pain characteristics were expanded to: burning/pain with pressure refusal, stabbing/swelling pain, aching/dull/hidden pain. To better reflect overall health, “foreign body characteristics” was added, with options: blisters, blood blisters, and dry scabs.

Statistical methods

Data from the three rounds of expert questionnaires were collected using Microsoft Office Excel 2021. A database was created and imported into SPSS 26.0 for statistical analysis. Indicators such as standard deviation, mean, CV, and full-score frequency were used. The Delphi method was applied to calculate the experts’ participation rate, authority level, concentration of opinions, and degree of coordination for statistical analysis.

Results

Expert participation

The consultation involved professionals from three fields: TCM clinical experts in wound care, nursing management experts, and wound care specialist nurses. A total of 21 experts from four hospitals in Beijing and Henan were invited to participate in three rounds. The average age of the experts was (49.57 ± 7.24) years, and their average working experience was (28.38 ± 8.01) years. Basic information about the experts is presented in Table 1.

In the three rounds of questionnaire surveys, 21 questionnaires were distributed and 21 valid responses were collected, achieving a 100% response rate. This reflected a high level of expert engagement.

The calculated results showed $Ca = 0.85$, $Cs = 0.89$, and $Cr = 0.87$, indicating a high level of expert authority in this consultation.

Expert opinion coordination

Kendall’s W ranges from 0 to 1, with higher values reflecting greater coordination. The CV and Kendall’s W values of the first round were 0.172 and 0.406, respectively. The details of the first-round expert consultation CV are shown in Table 2. For the following two rounds, they improved to 0.044 and 0.013 for CVs, and 0.269 and 0.502 for Kendall’s W values, respectively. The p -values from the chi-square tests for all three rounds were less than 0.01, indicating a high level of concentration and consistency in expert opinions.

Formation of the TCM nursing assessment form

After three rounds of in-depth expert consultation and careful discussion, a small-scale pre-test was conducted. Using convenience sampling, 30 patients with wound surfaces at Beijing Hospital of TCM, Capital Medical University, were selected. Written informed consent from all patients. Trained healthcare staff used the TCM wound surface nursing assessment form to evaluate the patients. Based on the pre-test results, an expert seminar was held to address issues such as unclear indicator descriptions, unreasonable scoring standards, and excessive completion time, leading to targeted revisions and improvements. The indicators included general information, history, diagnosis, vital signs, wound infection, score evaluation, and wound evaluation. The final TCM nursing assessment form for chronic wounds was established, as shown in Table 3.

Discussion

The TCM syndrome differentiation logic of the assessment form developed in this study is grounded in the classic TCM surgical theory of the “Three Methods of Tissue Regeneration”. To clearly illustrate the syndrome classification framework underlying our

Table 2. Expert consultation results

No.	Indicator	Mean $\pm$ SD	CV	Full-Score Frequency
1.1	Education Level	3.0476 $\pm$ 1.3956	0.4579	0.1905
1.2	Smoking/Alcohol History	3.619 $\pm$ 1.2836	0.3547	0.3333
1.3	Allergy History	4.1905 $\pm$ 0.8729	0.2083	0.4286
1.4	Past Medical History	3.9048 $\pm$ 1.0911	0.2794	0.3333
1.5	TCM Diagnosis	4.0952 $\pm$ 1.136	0.2774	0.4762
1.6	Syndrome Differentiation	4.0952 $\pm$ 1.136	0.2774	0.4762
1.7	Western Diagnosis	3.6667 $\pm$ 1.278	0.3486	0.3333
1.8	Vital Signs	4.381 $\pm$ 1.0713	0.2445	0.6667
1.9	Blood Glucose	4.7143 $\pm$ 0.7171	0.1521	0.8095
1.10	Infection Indicators	4.619 $\pm$ 0.9207	0.1993	0.7619
1.11	Exudate Culture	4.7143 $\pm$ 0.7171	0.1521	0.8095
1.12	ADL Score	3.2381 $\pm$ 1.3381	0.4132	0.2381
1.13	Braden Pressure Ulcer Risk Score	3.619 $\pm$ 1.2836	0.3547	0.3333
1.14	NRS2002 Nutrition Score	4.3333 $\pm$ 0.7958	0.1837	0.5238
1.15	VAS Pain Score	4.2857 $\pm$ 1.0556	0.2463	0.5714
1.16	Caprini Thrombosis Risk Score	4.0476 $\pm$ 1.0713	0.2647	0.4286
2.1	Time	4.7619 $\pm$ 0.7003	0.1471	0.8571
2.2	Location	4.9524 $\pm$ 0.2182	0.0441	0.9524
2.3	Area	5 $\pm$ 0	0	1
2.4	Depth	5 $\pm$ 0	0	1
2.5	Sinus Tract/Tunneling	4.8571 $\pm$ 0.6547	0.1348	0.9524
2.6	Necrosis/Granulation Ratio	4.8095 $\pm$ 0.6016	0.1251	0.9048
2.7.1	Exudate Amount	4.8571 $\pm$ 0.3586	0.0738	0.8571
2.7.2	Exudate Color	4.8571 $\pm$ 0.3586	0.0738	0.8571
2.7.3	Exudate Texture	4.8571 $\pm$ 0.3586	0.0738	0.8571
2.7.4	Exudate Odor	4.8571 $\pm$ 0.3586	0.0738	0.8571
2.7.5	Necrotic Tissue Color	4.9048 $\pm$ 0.3008	0.0613	0.9048
2.7.6	Necrotic Tissue Appearance	4.8571 $\pm$ 0.4781	0.0984	0.9048
2.7.7	Granulation Color	4.8571 $\pm$ 0.4781	0.0984	0.9048
2.7.8	Granulation Appearance	4.8571 $\pm$ 0.4781	0.0984	0.9048
2.7.9	Peri wound Color	4.9524 $\pm$ 0.2182	0.0441	0.9524
2.7.10	Peri wound Temperature	4.9524 $\pm$ 0.2182	0.0441	0.9524
2.7.11	Swelling	4.9524 $\pm$ 0.2182	0.0441	0.9524
2.7.12	Wound Edge	4.5714 $\pm$ 0.9783	0.214	0.8095

ADL, activity of daily living; CV, coefficient of variation reflecting relative data variability; NRS, Nutritional Risk Screening; SD, standard deviation representing data dispersion; TCM, traditional Chinese medicine; VAS, Visual Analogue Scale for subjective pain assessment.

form and its correspondence with treatment principles and herbal formulas for clinical application, we have summarized the key points of pattern differentiation based on this theory, as shown in Table 4. Based on clinical practice and literature, this study established TCM diagnostic criteria for chronic wounds, including damp-heat pattern, blood stasis pattern, and Yang deficiency pattern. Furthermore, it refined the manifestations and nursing meth-

ods of each type.

Chronic skin ulcers are a common clinical condition. In 2015, Dowsett *et al.*²⁰ proposed the “Wound Assessment Triangle” framework to assess patients holistically and involve them in wound management. As early as 3,000 years ago, the *Huangdi Neijing* (Yellow Emperor’s Inner Classic) introduced the concept of syndrome differentiation and treatment. Clinical nurses should

Table 3. TCM Wound Surface Nursing Assessment Form

TCM Wound Surface Nursing Assessment Form (Assessment Date and Time: _____)					
Item	Options/Content				
Name					
Gender					
Age					
Topical Medication					
Allergy History					
Past Medical History	☐ Diabetes ☐ Hypoproteinemia ☐ Anemia ☐ Immune Disease ☐ Malignant Tumor ☐ Other				
Glycated Hemoglobin	☐ <7.0 ☐ 7.0-8.5 ☐ 8.5-9.5 ☐ >9.5				
Fasting Blood Glucose	☐ <4.4 ☐ 4.4-7.0 ☐ 7.1-8.5 ☐ 8.6-10.0 ☐ 10.1-12 ☐ >12				
Transcutaneous Oxygen Pressure	☐ <20 ☐ 20-40 ☐ >40				
Exudate Culture	☐ <i>Staphylococcus aureus</i> ☐ <i>Pseudomonas aeruginosa</i> ☐ <i>Escherichia coli</i> ☐ <i>Acinetobacter baumannii</i> ☐ <i>Enterobacter cloacae</i> ☐ Other				
NRS2002 Nutrition Score	☐ 0 ☐ 1-2 ☐ 3-5 ☐ >5				
NRS Pain Score	☐ 0 ☐ 1-3 ☐ 4-6 ☐ 7-10				
Emotional Preference	☐ Anger ☐ Joy ☐ Pensiveness ☐ Sadness ☐ Fear ☐ Other				
Dietary Preference	☐ Sour ☐ Bitter ☐ Sweet ☐ Spicy ☐ Salty ☐ Other				
Wound Surface Assessment	Initial Time				
	Location				
	Length × Width × Depth				
	Sinus Tract	☐ None ☐ Present			
	Granulation Amount (%)	☐ Small ☐ Medium ☐ Large ☐ Very Large ☐ Complete			
	Necrotic Tissue Amount (%)	☐ Small ☐ Medium ☐ Large ☐ Very Large ☐ Complete			
	Assessment Item	Content	Damp-Heat Pattern	Blood Stasis Pattern	Yang Deficiency Pattern
	Exudate	Amount	☐ Large	☐ Small	☐ Medium/small
		Color	☐ Yellow/white(gray)/bright/turbid	☐ No	☐ No
		Texture	☐ Thick	☐ Rare	☐ Rare/Powder/water
		Odor	☐ Stinky/foul odor	☐ Tasteless	☐ Light fishy smell
	Necrotic Tissue	Color	☐ Yellow/white	☐ yellow/white	☐ gray/black
		Texture	☐ Loose/easy to pull off	☐ Dense/Dry	☐ Kerch/tightly adhered
	Granulation Tissue	Color	☐ Red/dirty	☐ Dark red/dark/purple	☐ Pale/light
		Texture	☐ Fresh/ Swelling shiny	☐ Hard texture upon touch /fibrosis	☐ Edema
	Periwound	Color	☐ Red/ flushing	☐ Purple Dark/Black	☐ White/light
		Temperature	☐ Heat	☐ Normal/heat	☐ Cool/Slightly Hot
		Swelling	☐ Yes	☐ Yes/No	☐ No
		Wound Edge	☐ No seal	☐ Seal	☐ Seal
	Foreign body	Characteristics	☐ Blister	☐ Blood blister	☐ Dry scabs
	Pain	Characteristics	☐ Burning pain/pain refusal to press	☐ Painful pain/swelling	☐ Sore/dull/dull pain

Exudate amount is measured by the number of soaked gauze layers: none, trace (<4 layers), small (4–8 layers), medium (8–16 layers), large (≥16 layers). One small medical gauze square has 8 layers, fully soaked ≈ 5 mL. Necrotic tissue and granulation tissue are measured by the percentage of the wound surface area: small (<25%), medium (25–50%, excluding 50%), large (50–75%), very large (>75%), and complete (100%). Pattern assessment: A pattern is confirmed if 70% of its features (at least 9 items) are met; otherwise, it is considered a combined pattern. NRS, Nutritional Risk Screening; TCM, traditional Chinese medicine.

Table 4. TCM syndrome differentiation for chronic wounds based on the “Three Methods of Tissue Regeneration” theory

Damp-Heat Pattern	Blood Stasis Pattern	Yang Deficiency Pattern
Necrosis	Stasis	Deficiency
Necrosis Removal & Tissue Regeneration	Blood Activation & Tissue Regeneration	Yang Restoration & Tissue Regeneration
Zhuhong Formula	Purple Gangrene Formula	Yang Restoration & Tissue Regeneration Formula
Ingredients: 15g Jinghong Powder, 5g Cinnabar, Vaseline	Ingredients: Dragon’s Blood, Calomel, Red Powder, Amber Powder, Frankincense Powder (9.38g each), Borneol (0.94g), Calcined Pearl Powder (0.94g), Beeswax (31.25g), Sesame Oil (125g)	Ingredients: Cinnamon, Processed Ginger, Ginseng Rootlet, White Peony, Angelica (9.38g each), White Mustard Seed, Mugwort (31.25g each), White Atractylodes, Astragalus (15.63g each)
Features: Dark wound surface, persistent necrotic tissue, foul odor, intermittent pain/itching, pus coating or seepage, hard periwound edges, warm and burning swelling	Features: Chronic ulceration, minimal or persistent necrotic tissue with difficulty forming new tissue, purple-dark contracted edges, rigid swelling, minimal or dry exudate, dark periwound skin, heavy or numb pain	Features: Dull brown dirty wound surface, flat shape, no new granulation, thin, clear, or powdery exudate, pale-dark periwound skin, aching or twitching pain in cold
Effects: Remove necrosis, promote tissue regeneration, activate blood, resolve stasis	Effects: Activate blood, promote tissue regeneration, encourage pus formation	Effects: Restore Yang, promote tissue regeneration, support Qi, nourish blood

TCM, traditional Chinese medicine.

emphasize a combination of holistic and localized syndrome differentiation, focusing on the individual, balancing Yin and Yang, and adapting to the three causes.²¹

The TCM theory of the “three methods of generating muscles” was first proposed by the Yuan Dynasty physician Qi Dezhi. He systematically expounded the three methods of generating muscle in *Surgical Essence*, namely, removing decay and generating muscle, simmering pus and growing flesh, and supplementing deficiency and generating muscle, which have become an important theoretical basis for the treatment of ulcers and injuries in TCM surgery. In the theoretical system of TCM, chronic sores are regarded as external manifestations of an imbalance in the internal environment of the human body. Based on the holistic concept of TCM and the principles of syndrome differentiation and treatment, Zhu Y has summarized the relevant experience inheriting the ideas of the older generation of Yanjing surgical experts,²² identified three common patterns in the ulceration and post-ulceration stages:

1. Damp-Heat with Yin Deficiency: characterized by pus formation and corruption, abundant Qi, blood, and body fluids, with a strong body resisting declining evil—a Yang-pattern ulcer.
2. Spleen-Kidney Yang Deficiency: characterized by tendon withering and bone damage, depletion of Qi, blood, and body fluids, with strong evil overpowering a declining body—a Yin-pattern ulcer.
3. Qi Deficiency and Blood Stasis: characterized by stasis, insufficient Qi, blood, and body fluids, with a struggle between good and evil—a mixed Yin-Yang pattern ulcer.

This study developed the TCM nursing assessment form based on the characteristics of “damp-heat, blood stasis, and Yang deficiency” wound surfaces, combined with patients’ overall dietary habits and emotional traits. This form enriches the theoretical system of TCM nursing, addressing the previous weakness in outcome evaluation and providing new perspectives and methods for TCM chronic wound nursing research.

Drawing on the academic ideas of Yanjing surgical masters,

we summarized the “Three Methods of Tissue Regeneration” for treating chronic ulcers based on nearly a century of clinical validation and refinement.²³ These methods recognize three pathological processes in ulcers, with different treatment principles of removing necrosis, resolving stasis, and tonifying deficiency. Wounds at different stages exhibit distinct clinical features, such as wound and exudate color and texture, influenced by nutrition and underlying diseases. Dynamic assessment before treatment was necessary to determine the pattern and stage, guiding the selection of appropriate methods and medications.

Limitations

The consulted experts were mainly from hospitals in Beijing and Henan, with limited geographic coverage, which may restrict the form’s applicability and representativeness nationwide. Future studies could expand the experts’ geographic diversity, sample size, and the involved centers. A formal Standard Operating Procedure is also needed to ensure consistency, reproducibility, and practical uptake.

Conclusions

This scale integrates TCM syndrome differentiation principles and provides a standardized tool for chronic wound conditions to develop targeted nursing plans and adjust interventions.

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Conflict of interest

The authors have no conflict of interest related to this publication.

Author contributions

Conceptualization, writing original draft (LY), methodology (XX), data curation (SC, RX, CS), formal analysis (CW, GW, SA, SX), review & editing, funding acquisition (SW), supervision, and project administration (XP). All authors have approved the final version and publication of the manuscript.

Ethical statement

This research was approved by the ethics committee of Beijing Hospital of Traditional Chinese Medicine, Capital Medical University (No. 2025BL04-029), and was conducted with the Declaration of Helsinki (as revised in 2024). Written informed consent was obtained from 30 patients in this study.

Data sharing statement

The data used in support of the findings of this study are available from the corresponding author at ysys2001@yeah.net upon request.

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