

A Scoping Review of the Research Pertaining to Stigma in Individuals with Burn Injuries

Xiangyang Zhao^{1,a}, Jing Zhao^{2,b,*}, Chi Xue^{1,c}, Qin Zhou^{3,d,*}

¹The School of Nursing, Shaanxi University of Chinese Medicine, Xianyang, China, 712046

²Nursing Department, Xi'an Traditional Chinese Medicine Hospital, Xi'an, China, 710000

³Burn and Dermatology, First Affiliated Hospital of Air Force Medical University, Burn Center of the PLA, Xi'an, China, 710032

^a2805495225@qq.com, ^b18992810863@qq.com, ^c1985219018@qq.com, ^d948306480@qq.com

*Corresponding author

Abstract: This study aims to systematically review the conceptual connotation, measurement tools, influencing factors, and intervention strategies for stigma in burn patients, analyze the limitations of existing research, and provide directions for clinical practice and future studies. A computerized search was conducted in PubMed, Embase, Web of Science, Cochrane Library, CNKI, Wanfang Database, VIP Database, and SinoMed for relevant studies on stigma in burn patients. The search period spanned from the establishment of each database to July 1, 2025. The included literature was summarized and analyzed. A total of 960 articles were retrieved, with 31 ultimately included. Commonly used measurement tools include the Perceived Stigma Questionnaire (PSQ), Social Comfort Questionnaire (SCQ), and Social Impact Scale (SIS). Influencing factors involve individual characteristics, disease-related factors, psychological factors, and insufficient social support. Intervention strategies encompass multidimensional approaches based on theories such as Acceptance and Commitment Therapy (ACT) and multidisciplinary rehabilitation care. Current research on stigma in burn patients has limitations in the localization of measurement tools, exploration of mechanisms, and optimization of intervention programs. Future efforts should focus on the development of burn-specific scales, longitudinal causal studies, and high-quality evidence-based interventions to refine theoretical frameworks and guide clinical practice.

Keywords: Stigma; Burn Patients; Scoping Review

1. Introduction

Burn injury is a severe trauma with high disability rates, which not only causes skin and functional damage but also leads to long-term psychosocial adaptation issues^[1]. During the rehabilitation process, patients often face pressure from social evaluations due to changes in their appearance and functional impairments, which easily triggers stigma—an internal experience of shame and stigmatization arising from being devalued and discriminated against because of one's own condition^[2]. For burn patients, visible scars and deformities become markers of "difference", which are prone to attracting public attention, avoidance, and even rejection. These external negative attitudes are internalized by the individual, resulting in significant stigma^[3]. Stigma not only exacerbates anxiety, depression, and low self-esteem, leading to social avoidance and reduced treatment adherence, but also seriously hinders patients' reintegration into society^[4,5]. Currently, research on stigma among burn patients is still in its developmental stage. Compared with fields such as mental illnesses or HIV/AIDS, the systematic integration of research in this area is significantly insufficient. Existing studies are scattered across topics including measurement tools, influencing factors, and intervention strategies, and there is a lack of comprehensive reviews. Therefore, this study adopts a scoping review methodology to systematically synthesize domestic and international research on stigma in adult burn patients, clarify the conceptual connotation, assessment tools, influencing factors, and intervention measures, identify research gaps, and provide a foundation for future theoretical development and clinical interventions.

2. Materials and Methods

2.1 Defining Research Questions

What are the current research status and main categories regarding patients' stigma in burn cases? What tools are applicable for assessing patients' stigma in burn cases? What are the key risk factors affecting patients' stigma in burn cases? What are the current effective intervention strategies for reducing patients' stigma in burn cases?

2.2 Literature Search Strategy

English databases including PubMed, Embase, Web of Science, and the Cochrane Library, as well as Chinese databases including China National Knowledge Infrastructure (CNKI), Wanfang Database, VIP Database, and Chinese Biomedical Literature Database (CBM), were searched to screen studies related to stigma in burn patients. The search period covered from the establishment of each database to July 1, 2025. The search was conducted using a combination of MeSH terms (for English databases) and free-text words. The search terms were as follows: Burn-related terms: "burn", "burns", "burn injury", "burn injuries", "burn patient", "burn survivor". Stigma-related terms: "stigma", "stigmatization", "perceived stigma", "social stigma", "burn stigma", "illness stigma".

2.3 Inclusion and Exclusion Criteria for Literatures

The inclusion criteria were determined based on the PCC framework: Participants (P): Burn patients; Concept (C): Direct or related concepts involving stigma in burn patients; Context (C): Measurement tools for stigma, influencing factors, and intervention programs during the recovery period of burn patients. The exclusion criteria were: Duplicate publications or literatures with full texts unavailable; Conference proceedings or review articles; Case reports and commentaries.

2.4 Literature Screening and Data Extraction

Retrieved literatures were imported into EndNote software to remove duplicates. Two researchers conducted an initial screening by reading titles and abstracts in accordance with the inclusion and exclusion criteria. Literatures that passed the initial screening were further screened by reading their full texts. Data were extracted and verified; in case of disagreements, the final decision was made after discussion with a third researcher. Key extracted information included authors, year, study type, research topic, and study results. The extracted study types and measurement methods were summarized, and the influencing factors and intervention measures were classified and discussed.

3. Results

3.1 Literature Screening Results

A total of 960 Chinese and English literatures were retrieved. After removing duplicate literatures, 845 remained. A total of 132 articles were obtained after initial screening by reading titles and abstracts. After full-text reading, 101 articles were excluded due to inconsistent research content or unavailable full texts, and finally 31 articles were included. The flowchart of literature screening is shown in Figure 1, and the basic characteristics of the included articles are presented in Table 1.

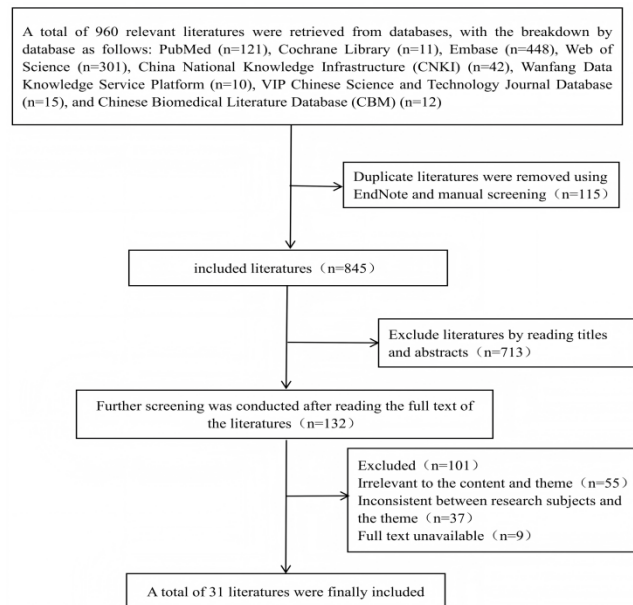


Figure 1: Literature Screening Flowchart.

Table 1: Characteristics of Included Articles.

Included Literature	Year	Study Type	Research Topic	Findings
Oliveira ^[6]	2020	Cross-sectional study	Correlation between perceived stigma, depressive symptoms, and self-esteem levels in burn patients.	Perceived stigma was positively correlated with depression and negatively correlated with self-esteem.
Müller ^[7]	2016	Scale validation	Application of the Perceived Stigma Questionnaire (PSQ) and Social Comfort Questionnaire (SCQ).	The German versions of PSQ/SCQ are suitable for assessing perceived stigma and social comfort in adult burn survivors.
Singh ^[8]	2025	Qualitative study	Manifestations and influencing factors of stigma in burn patients.	Influencing factors: insufficient resources, lack of guidelines, healthcare provider behaviors (lack of empathy), and social prejudice.
Ross ^[9]	2021	Retrospective study	Influencing factors of stigma in burn patients.	Influencing factors: head/neck/facial burns and limb amputation.
Freitas ^[10]	2017	Scale validation	Adaptation and validation of the Social Comfort Questionnaire (SCQ).	The Brazilian Portuguese version of the SCQ (BR-SCQ) is suitable for assessing social comfort in Brazilian burn patients.
Knudson-Cooper ^[11]	1981	Retrospective study	Investigation of stigma status and influencing factors in burn patients.	Influencing factors: burn severity (area, location, appearance impact, etc.), age (at time of burn), gender, time since burn.
Willemse ^[12]	2021	Scale validation	Psychometric evaluation and validation of the Dutch version of the PSQ.	The Dutch version of the PSQ is suitable for assessing stigma in burn patients.
Young ^[13]	1974	Qualitative study	Specific manifestations of stigma in burn patients.	Main manifestations: deviant behavior, environment, care characteristics. Intervention methods: establishing burn units, increasing nursing staff, optimizing environment, etc.
Lawrence ^[14]	2006	Scale development and validation	Development and validation of the Perceived Stigma Questionnaire (PSQ) and Social Comfort Questionnaire (SCQ).	PSQ and SCQ are suitable for assessing the social experiences (perceived stigma and social comfort) of burn survivors.
Lehna ^[15]	2013	Qualitative study	Intervention for stigma in pediatric burn patients.	Intervention methods: Acknowledge stigmatizing behaviors experienced by burned children; nurse practitioners should intervene early.
Freitas ^[16]	2014	Scale translation and validation	Translation and validation of the Perceived Stigma Questionnaire (PSQ).	The Perceived Stigma Questionnaire (PSQ) is suitable for measuring stigma in Brazilian burn patients.
Watson ^[17]	2022	Cross-sectional study	Association between stigma, burn-related quality	Stigma in burn patients reduces life satisfaction; resilience is an important protective factor,

			of life, resilience, and life satisfaction in burn patients.	buffering the negative emotional effects of stigma and reducing its detrimental impact on life satisfaction.
Wu ^[18]	2022	Cross-sectional study	Status and influencing factors of stigma and illness uncertainty in burn patients with exposed areas (face, neck, limbs).	Status: Burn patients with exposed areas have moderate levels of stigma, and stigma is significantly positively correlated with illness uncertainty. Influencing factors: illness uncertainty, itching, place of residence, age.
Boersma-van ^[19]	2024	Multicenter cohort study	Moderating role of gender in the relationship between perceived stigma and depressive symptoms in burn patients.	Women showed a more consistent direct association between number of surgeries and perceived stigma/depressive symptoms than men.
Hemmati ^[20]	2022	Mixed-methods study	Analyzing the dimensions of burn self-stigma (antecedents, attributes, consequences) and proposing a comprehensive operational definition.	Burn self-stigma is a multidimensional concept stemming from societal misconceptions about burns, manifesting as negative self-cognitions, emotions, and behavioral responses in survivors, ultimately significantly impacting individual, family, and social functioning.
Wu ^[21]	2023	Cross-sectional study	Relationship between stigma and self-esteem in burn patients and influencing factors.	Relationship: Burn patients have moderate levels of stigma and lower self-esteem, and the two are significantly positively correlated. Influencing factors: place of residence, itching symptoms, and self-esteem level.
Zhang ^[22]	2023	Cross-sectional study	Association between perceived stigma, resilience, and alexithymia in burn patients.	Perceived stigma, resilience, and alexithymia were significantly correlated in burn patients, and resilience partially mediated the relationship between stigma and alexithymia.
Willemse ^[23]	2023	Observational study	Relationship between stigma and fear of negative evaluation, with body image dissatisfaction and self-esteem in burn patients.	Burn severity, age, and gender affect body image and self-esteem in burn survivors through different pathways; body image dissatisfaction is an important mediator connecting psychosocial factors and self-esteem.
Lawrence ^[24]	2010	Scale validation	Validation of the Perceived Stigma Questionnaire (PSQ) and Social Comfort Questionnaire (SCQ).	PSQ and SCQ can be used for comparative studies across age groups.
Freitas ^[25]	2018	Scale validation	Validation of the Brazilian Portuguese version of the PSQ.	The Brazilian revised PSQ (PSQ-R) is suitable for assessing perceived stigma in Brazilian adult burn patients.
Wu ^[26]	2024	Cross-sectional study	Relationship between stigma, self-esteem, and disease-related factors in facial burn patients.	Facial burn patients have moderate levels of stigma and lower self-esteem; stigma was significantly positively correlated with self-esteem, and self-esteem was an independent risk factor for stigma.
Liu Xiuyan ^[27]	2025	Interventional study	Intervention for stigma in burn patients.	Intervention method: ACT-based psychological intervention.
Guo Jing ^[28]	2022	Randomized controlled trial	Intervention for stigma in burn patients.	Intervention method: Mindfulness-based psychological intervention based on Roy's Adaptation Model.
Yu Xue ^[29]	2023	Randomized controlled trial	Intervention for stigma in burn patients.	Intervention method: Psychological intervention based on the Theory of Hope and Disappointment.
Lan Xiaohong ^[30]	2023	Controlled clinical trial	Intervention for stigma in burn patients.	Intervention methods: Sunny Mindset Remodeling Intervention, psychological intervention.
Ren Hong ^[31]	2021	Randomized controlled trial	Intervention for stigma in burn patients.	Intervention method: Health education based on the Knowledge-Attitude-Practice (KAP) model combined with motivational nursing intervention.
Liu Feifei ^[32]	2022	Randomized controlled trial	Intervention for stigma in burn patients.	Intervention method: Acceptance and Commitment Therapy (ACT).
Li Yanfei ^[33]	2018	Cross-sectional study	Status and influencing factors of stigma in burn patients.	Influencing factors: degree of body image change, family acceptance of disability, burn area, employment status, occupation, family location.
Feng Xia ^[34]	2023	Randomized controlled trial	Intervention for stigma in burn patients.	Intervention method: Psychological nursing combined with health education.
Wang Qian ^[35]	2024	Randomized controlled trial	Intervention for stigma in burn patients.	Intervention method: Outcome-oriented diversified rehabilitation nursing.
Yao Miao ^[36]	2021	Cross-sectional study	Status and influencing factors of stigma in burn patients.	Influencing factors: Occupation, burn degree, level of family support, and perceived degree of image change.

3.2 Concept of stigma

Stigma is characterized as an intrapersonal sensation of shame triggered by others' discrimination or misunderstanding during the course of illness^[37]. This psychological construct predisposes patients to detrimental emotional sequelae, including compromised self-identity, shameful affect, depressive symptoms, and feelings of inferiority, which in turn impede the rehabilitation trajectory^[38]. Conceptually, stigma is dichotomized into public stigma and self-stigma: Public stigma denotes the social avoidance and rejection commonly experienced by patients in long-term interpersonal interactions. Self-stigma refers to the shame-derived psychological state wherein chronically discriminated patients develop self-doubt^[39]. Both dimensions of stigma exert deleterious impacts on patients' quality of life and recovery, potentially leading to adverse clinical outcomes^[40]. Among burn survivors, stigma manifests prevalently. Owing to prolonged physical and psychological duress, familial caregivers frequently report observable expressions of fear, shame, and guilt, which are often externalized through stigmatizing verbalizations and behaviors. Burn patients, particularly those with facial/neck disfigurements or amputations, are at heightened risk of experiencing stigmatizing stares or mockery^[17].

3.3 Measurement Tools for Stigma

3.3.1 Perceived Stigmatization Questionnaire (PSQ)

The PSQ was developed by Lawrence^[14] to assess an individual's perception of others' behaviors directed toward themselves. This scale comprises 21 items, uses a 5-point Likert scale, and covers three dimensions: Confused Behaviors and Stares (8 items); Lack of Friendly Behaviors (8 reverse-scored items); Hostile Behaviors (5 items). The total score is calculated by summing all 21 items and then dividing by 21; equivalently, the scale score can be obtained by summing the scores of all items and dividing by the total number of items. The higher the PSQ score, the more severe the individual's perceived stigmatization. The questionnaire demonstrated good discriminant and convergent validity, and Cronbach's α of 0.93 for the total score indicated good internal consistency^[12].

3.3.2 Social Comfort Questionnaire (SCQ)

The SCQ was developed by Lawrence^[14] as a unidimensional instrument designed to assess individuals' comfort levels in social interactions. Comprising 8 items, the scale employs a 5-point Likert response format. Items 2, 3, and 7 are reverse-scored to ensure measurement consistency. SCQ scores are calculated by summing all item responses and dividing by 8, with higher scores indicating stronger social comfort. The scale demonstrates excellent internal consistency, with a Cronbach's α coefficient of 0.91^[14].

3.3.3 Social Impact Scale (SIS)

Developed by Fife^[41] and later translated into Chinese by Taiwanese scholar Pan^[42], the Social Impact Scale (SIS) consists of 24 items across four dimensions: social exclusion, economic discrimination, internalized shame, and social isolation. Using a 4-point Likert scale, respondents rate their agreement with each item. Total scores are derived by summing all item responses, yielding a range of 24–96 points. Stigma perception severity is categorized into three tiers: Mild stigma (20-39 points): Weak perceived stigma; Moderate stigma (40-59 points): Moderate stigmatization experiences; Significant stigma (60-80 points): Severe stigmatization impact. The scale exhibits robust psychometric properties, with Cronbach's α coefficients ranging from 0.85 to 0.90 and inter-dimensional correlation coefficients between 0.28 and 0.66^[42].

3.4 Influencing Factors of Stigma in Burn Patients

3.4.1 Individual Factors

Analysis of the included literatures revealed that individual factors influencing stigma in burn patients mainly include gender, age, place of residence, educational level, and occupation type. Multiple studies have shown that female patients tend to report higher levels of stigma^[6,18,21], which may be attributed to women's greater sensitivity to appearance and social evaluations. Age and residence in rural areas or non-provincial capital cities are also associated with higher stigma^[18,21], potentially due to these groups having less access to social support and medical resources. Additionally, low educational level and unstable occupations (e.g., farmers, self-employed individuals) are identified as risk factors for stigma^[33,36], which may be linked to economic pressure and social status.

3.4.2 Disease-Related Factors

Disease-related factors are important predictor variables of stigma. Burn location is particularly critical: burns on exposed areas such as the head, face, and neck significantly increase stigma^[9,18]. A larger burn surface area, accompanied by pruritus, pain, or deformities, also exacerbates patients' feelings of shame and avoidant behaviors^[21,33]. Furthermore, shorter time since the burn injury and a greater number of surgeries are associated with higher levels of stigma^[9].

3.4.3 Psychological Factors

Psychological factors serve as internal mediating and moderating variables of stigma. Low self-esteem shows a significant positive correlation with stigma^[6,21,26,27], indicating that patients with low self-worth are more likely to internalize negative social evaluations. Low psychological resilience and alexithymia (difficulty identifying and expressing emotions) also strengthen stigma^[22]. In addition, body image dissatisfaction and fear of negative evaluation are key pathways connecting external stigma to internal psychological distress^[19].

3.4.4 Social Factors

Social support and socioeconomic status are key external factors influencing stigma. Low social support—especially low subjective support and low utilization of support—is significantly associated with high stigma^[33,36]. Insufficient family support, high economic pressure, and a high proportion of out-of-pocket medical expenses also aggravate patients' stigma^[33,36]. Moreover, experiences of social exclusion and discrimination directly reinforce patients' feelings of marginalization^[18,21,33,36].

3.5 Measures and Intervention Strategies for Reducing Stigma in Burn Patients

Among the included literatures, all measures and intervention strategies for reducing stigma in burn patients were derived from domestic studies. Liu Xiuyan^[27] adopted a psychological intervention based on Acceptance and Commitment Therapy (ACT). Through six phases—acceptance, cognitive defusion, being present, self-as-context, values clarification, and committed action—this intervention helped patients face trauma squarely, reduce negative cognitions, and enhance self-efficacy, which significantly reduced stigma and improved quality of life. Similarly, Liu Feifei^[32] applied Acceptance and Commitment Therapy, using five steps (relationship building, acceptance, cognitive defusion, being present, and committed action) combined with knowledge dissemination via new media platforms. This approach also significantly reduced stigma and self-perceived burden. Both studies demonstrated the significant effectiveness of ACT in alleviating patients' stigma. Guo Jing^[28] implemented a mindfulness-based psychological intervention grounded in the Roy Adaptation Model. By integrating primary and secondary assessments to define nursing goals, and combining mindfulness training, communication guidance, and peer support, this intervention effectively enhanced psychological resilience and reduced stigma. Yu Xue^[29] based on the Hope and Disappointment Theory, conducted interventions in areas including management of the emotional shock phase, establishment of interpersonal relationships, setting of life goals, provision of self-care support, and enrichment of spiritual life. These interventions significantly reduced stigma while improving psychological resilience and acceptance of disability. Lan Xiaohong^[30] proposed a sunshine mindset reconstruction intervention. Through training of professional nursing teams, popularization of knowledge, and comprehensive mindset guidance (e.g., positive communication, family education, and exchange activities), this intervention strengthened patients' ability to regulate positive emotions and reduced stigma. Ren Hong^[31] combined health education based on the Knowledge-Attitude-Practice (KAP) concept with incentive-based nursing. Through three links—knowledge transmission, belief enhancement, and behavior change—supplemented by emotional, role-model, and verbal incentives, this approach effectively improved cognitive levels and psychological resilience, while reducing stigma. Feng Xia^[34] used psychological nursing combined with health education, including individual and group psychological counseling, family and role-model incentives, distraction techniques, and multimedia health education. This intervention effectively alleviated negative emotions and stigma, and improved hope levels and quality of life. Wang Qian^[35] implemented outcome-oriented diversified rehabilitation nursing. By establishing a multidisciplinary team, comprehensive interventions were conducted in aspects such as psychology, nutrition, wound care, health education, functional training, and post-discharge follow-up. These interventions significantly improved psychological resilience, appearance acceptance, and social support, while reducing stigma. Collectively, these intervention strategies exhibit the characteristics of being multidimensional, individualized, and systematic. They focus on psychological support, cognitive-behavioral adjustment, enhanced social support, and

integrated rehabilitation training, thereby providing effective pathways for reducing stigma in burn patients in clinical practice.

4. Discussion

4.1 Conceptual Definition of Stigma and Measurement Tools Still Require Cross-Cultural Adaptation and Development

Through a review of literatures related to stigma in burn patients, this study found that stigma, as a multidimensional psychosocial construct, encompasses two dimensions: public stigma and self-stigma, and its manifestations in the burn population are particularly complex. Currently, commonly used measurement tools such as the PSQ, SCQ, and SIS have good reliability and validity in Western cultural contexts, but their application in Chinese burn patients still faces issues of cultural adaptability. For instance, in the Brazilian version of the PSQ, some items needed to be removed to improve model fit^[25], indicating that the structural stability of this scale in non-Western contexts requires further verification. In contrast, the SIS scale, which includes dimensions more sensitive to social structure (e.g., social exclusion, economic discrimination), may be more suitable for the Chinese medical context where there are significant disparities in economic status and social support. In the future, further cross-cultural validation and revision of measurement tools should be conducted, and qualitative research should be integrated to better capture the connotation of local stigma.

4.2 Influencing Factors of Stigma in Burn Patients Exhibit Multilevel Interactivity

This study systematically identified four categories of factors influencing stigma in burn patients: individual characteristics, disease-related factors, psychological status, and social environment. Consistent with previous studies, being female, having a low educational level, residing in rural areas, suffering from head or facial burns, and lacking social support are important predictors of stigma^[18,21,33,36]. Notably, this study also found that psychological factors—such as low self-esteem, body image dissatisfaction, and alexithymia—play a key mediating role in the development of stigma^[21,22,23]. This is similar to the mechanism of stigma in patients with chronic diseases, suggesting that the psychological pathways of stigma may have cross-disease universality. However, compared with patients with cancer or mental illnesses, the stigma experienced by burn patients is more directly associated with visible physical injuries and social avoidance behaviors. This implies that interventions for burn patients should place greater emphasis on appearance acceptance and social reintegration. This finding emphasizes that future research should focus more on the interactive effects of psychological and social factors, rather than viewing the impact of a single variable in isolation.

4.3 Multidimensional Comprehensive Intervention Is an Effective Path to Reduce Stigma in Burn Patients

This study found that all interventions with reported effectiveness were derived from domestic studies, reflecting the active exploration of Chinese clinical practice in stigma intervention. These intervention strategies mainly include ACT, mindfulness training, guidance based on Hope Theory, sunshine mindset reconstruction, and KAP-based health education^[27,28,29,30,31,32,34,35]. A common feature of these strategies is the emphasis on the three-dimensional integration of cognitive-behavioral change, emotional regulation, and enhanced social support. Compared with international studies, domestic interventions pay more attention to family participation, group support, and multi-level health education, reflecting the localized characteristics of interventions in a collectivist cultural context. However, existing studies mostly focus on short-term effect evaluation, lacking long-term follow-up and mechanism verification. Additionally, intervention programs have not yet formed standardized modules, which limits their promotability. In the future, more randomized controlled trials (RCTs) and effectiveness studies should be promoted; scalable and personalized intervention programs should be developed in combination with digital medical technology; and theoretical construction and verification of intervention mechanisms should be strengthened.

5. Conclusion

This study systematically reviewed the concept, measurement tools, influencing factors, and intervention measures of stigma in burn patients. The results showed that moderate to severe levels of

stigma are prevalent in this population, and are more prominent among patients with head or facial burns, female patients, low-income patients, and those with insufficient social support. The development of stigma is jointly influenced by multiple factors, including individual characteristics, injury conditions, psychological status, and social environment. This study also systematically sorted out the adaptation status of stigma assessment tools in different cultural contexts, and summarized that a variety of psychosocial interventions—such as ACT, mindfulness intervention, Hope Theory-guided intervention, and KAP-based intervention—have significant effects in alleviating stigma. This study not only deepens the understanding of the mechanism underlying stigma in burn patients, but also provides theoretical and practical basis for formulating cross-culturally adaptable intervention strategies. It has important clinical value and social significance for promoting comprehensive rehabilitation of burn patients and improving their long-term quality of life.

References

- [1] Chen PJ, Huang CW, Lin HL, et al. Depression, postburn disability & quality of life: The moderating roles of burn specific coping strategies[J]. *Burns*. 2023 Dec;49(8):1886-1892.
- [2] Wu Wei. Impact of nursing intervention on emotional and self-esteem in patients with moderate-area burns [J]. *Journal of Practical Gynecology Endocrinology (Electronic Edition)*, 2016,3(10):31-32.
- [3] Lawrence JW, Fauerbach JA, Heinberg L, et al. Visible vs hidden scars and their relation to body esteem[J]. *J Burn Care Rehabil*. 2004 Jan-Feb;25(1):25-32.
- [4] Lee GH, Lee SA, No SK, et al. Factors contributing to the development of perceived stigma in people with newly diagnosed epilepsy: A one-year longitudinal study[J]. *Epilepsy Behav*. 2016 Jan;54:1-6.
- [5] Gonzalez BD, Jacobsen PB. Depression in lung cancer patients: the role of perceived stigma[J]. *Psychooncology*. 2012 Mar;21(3):239-46.
- [6] de Oliveira Freitas N, Pitta NC, Dantas RAS, et al. Comparison of the perceived stigmatization measures between the general population and burn survivors in Brazil[J]. *Burns*. 2020 Mar;46(2):416-422.
- [7] Müller A, Smits D, Claes L, et al. Validation of the German version of the Perceived Stigmatization Questionnaire/Social Comfort Questionnaire in adult burn survivors[J]. *Burns*. 2016 Jun;42(4):790-796.
- [8] Singh P, Jagnoor J, Khurram MF, et al. Stigma and discrimination in healthcare: Challenges faced by burn patients in India[J]. *Burns*. 2025 Aug;51(6):107566.
- [9] Ross E, Crijns TJ, Ring D, et al. Social factors and injury characteristics associated with the development of perceived injury stigma among burn survivors[J]. *Burns*. 2021 May;47(3):692-697.
- [10] Freitas NO, Forero CG, Alonso J, et al. Cross-cultural adaptation and validation of the Social Comfort Questionnaire for Brazilian adult survivors of burns[J]. *Qual Life Res*. 2017 Jan;26(1):205-211.
- [11] Knudson-Cooper MS. Adjustment to visible stigma: the case of the severely burned[J]. *Soc Sci Med Med Anthropol*. 1981 Jan;15B(1):31-44.
- [12] Willemse H, Geenen R, Van Loey NE. Reliability and structural validity of the Dutch version of Perceived Stigmatization Questionnaire in adults with burns[J]. *Burns*. 2021 Sep;47(6):1381-1388.
- [13] Young KA. Stigmatization of burn patients[J]. *AORN J*. 1974 Nov;20(5):802-808.
- [14] Lawrence JW, Fauerbach JA, Heinberg LJ, et al. The reliability and validity of the Perceived Stigmatization Questionnaire (PSQ) and the Social Comfort Questionnaire (SCQ) among an adult burn survivor sample[J]. *Psychol Assess*. 2006 Mar;18(1):106-111.
- [15] Lehna C. Stigma perspective of siblings of children with a major childhood burn injury[J]. *J Am Assoc Nurse Pract*. 2013 Oct;25(10):557-562.
- [16] Freitas Nde O, Caltran MP, Dantas RA, et al. Tradução e adaptação transcultural do Perceived Stigmatization Questionnaire para vítimas de queimaduras no Brasil [Translation and cultural adaptation of the Perceived Stigmatization Questionnaire for burn victims in Brazil][J]. *Rev Esc Enferm USP*. 2014 Feb;48(1):25-33. Portuguese.
- [17] Watson JD, Perrin PB. Relations among Stigma, Quality of Life, Resilience, and Life Satisfaction in Individuals with Burn Injuries[J]. *Eur Burn J*. 2022 Feb 15;3(1):145-155.
- [18] Wu X, Hu Y, Hu A. Stigma and illness uncertainty among patients with visible burn scars: A cross-sectional study[J]. *Burns*. 2022 Aug;48(5):1190-1197.
- [19] Boersma-van Dam E, Spronk I, Hofland HWC, et al. Gender differences in relation to stigmatization and depressive symptoms after burns[J]. *Burns*. 2024 Aug;50(6):1662-1670.
- [20] Hemmati Maslampak M, Ajoudani F, Lotfi M, et al. Burn self-stigma: A hybrid concept analysis[J].

Burns. 2022 Sep;48(6):1405-1416.

[21] Wu X, Hu Y, Hu A. Living With Stigma and Low Self-esteem Among Individuals With Burn Injuries: A Cross-sectional Study[J]. *J Burn Care Res*. 2023 May 2;44(3):573-579.

[22] Zhang J, Ding L, Wu Y, et al. Perceived stigma in burn survivors: Associations with resourcefulness and alexithymia[J]. *Burns*. 2023 Sep;49(6):1448-1456.

[23] Willemse H, Geenen R, Egberts MR, et al. Perceived stigmatization and fear of negative evaluation: Two distinct pathways to body image dissatisfaction and self-esteem in burn survivors[J]. *Psychol Health*. 2023 Apr;38(4):445-458.

[24] Lawrence JW, Rosenberg L, Rimmer RB, et al. Perceived stigmatization and social comfort: validating the constructs and their measurement among pediatric burn survivors[J]. *Rehabil Psychol*. 2010 Nov;55(4):360-371.

[25] Freitas NO, Forero CG, Caltran MP, et al. Validation of the Perceived Stigmatization Questionnaire for Brazilian adult burn patients[J]. *PLoS One*. 2018 Jan 30;13(1):e0190747.

[26] Wu X, Hu Y, Li Y, et al. Stigma and self-esteem in facial burn patients: A correlation study[J]. *Burns*. 2024 Jun;50(5):1341-1348.

[27] Liu Xiuyan, Qi Hong, Gao Min. Psychological Interventions Based on ACT on Patients' Embarrassment and Quality of Life in Burn Cases [J]. *Contemporary Nurses (Early Edition)*, 2025,32(3):91-95.

[28] Guo Jing, Di Haiping, Zhu Mengying, et al. The Impact of Mindfulness Psychotherapy Based on Roy's Adaptation Model on Psychological Resilience and Embarrassment to Illness in Young and Middle-Aged Patients with Burn Scarring [J]. *Journal of Clinical Psychosomatic Disorders*, 2022,28(5):90-92,114.

[29] Yu Xue, Zhao Feilong, Gong Qingxiang. The Impact of Psychological Intervention Based on the Theory of Hope and Disappointment on the Psychological State of Burn Patients [J]. *China Aesthetic Medicine*, 2023,32(4):173-176.

[30] Lan Xiaohong, Yang Xinlei, Li Xiaotang. The Impact of Sunshine Mindset Reshaping Intervention on Emotional Regulation Strategies and Body Shame in Patients with Facial Burn Scarring [J]. *Medical Theory and Practice*, 2023,36(22):3939-3940,3891.

[31] Ren Hong and Ma Miaomiao. The Impact of Health Education Combined with Motivational Nursing Interventions Based on the Knowledge-Belief-Practice (KBP) Framework on Psychological Resilience and Body Shame in Patients with Extensive Burns [J]. *Clinical Medicine Research and Practice*, 2021,6(1):148-150.

[32] Liu Feifei, Gao Ling, Hou Bei, et al. Application of Acceptance and Commitment Therapy in Young Patients with Facial Burns [J]. *Qilu Journal of Nursing*, 2022,28(22):36-38.

[33] Li Yanfei, Gao Hua, Wang Mingxue, et al. A Study on the Current Status and Influencing Factors of Patients' Sense of Shame in Burn Cases [J]. *Qilu Journal of Nursing*, 2018,24(11):13-16.

[34] Feng Xia, Hu Yanwei, Cao Meiyang. Psychological Nursing Combined with Health Education for Patients with Extensive Burns and Scalds [J]. *Psychological Monthly*, 2023,18(5):144-146.

[35] Wang Qian, Zhao Chunyue, Zhao Xiaozhuo. The Impact of Outcome-Oriented Diversified Rehabilitation Nursing on Wound Healing and Aesthetic Acceptance in Patients with Extensive Burns [J]. *China Journal of Cosmetic Medicine*, 2024,33(2):162-166.

[36] Yao Miao, Liu Xiaohui, Ma Hui zhen, et al. Research on the Current Status and Influencing Factors of Inferiority Complex in Patients with Moderate to Severe Burns [J]. *Contemporary Nurse (Lower Monthly Issue)*, 2021,28(10):23-27.

[37] Thomsen T, Esbensen BA, Samuelsen S, et al. Brief preoperative smoking cessation counselling in relation to breast cancer surgery: a qualitative study[J]. *Eur J Oncol Nurs*. 2009 Dec;13(5):344-349.

[38] Doumit MA, Huijter HA, Kelley JH, et al. Coping with breast cancer: a phenomenological study[J]. *Cancer Nurs*. 2010 Mar-Apr;33(2):E33-39.

[39] Gao Lan, Cao Xiuzhen, Zhang Ying, et al. Cancer Patient's Shame Web of Science Database Literature Quantitative Analysis [J]. *China Journal of Mental Health*, 2018,32(6):484-489.

[40] Wang Xin and Gao Jie. Research Advances on Assessment Tools and Current Status of Cancer Patients' Sense of Shame [J]. *Journal of Nursing Education*, 2019,34(4):314-318.

[41] Fife BL, Wright ER. The dimensionality of stigma: a comparison of its impact on the self of persons with HIV/AIDS and cancer[J]. *J Health Soc Behav*. 2000 Mar;41(1):50-67.

[42] Pan AW, Chung LI, Fife BL, et al. Evaluation of the psychometrics of the Social Impact Scale: a measure of stigmatization[J]. *Int J Rehabil Res*. 2007;30(3):235-238.