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A Qualitative Study on the Perioperative Journey Map of Young and Middle-Aged Adults Undergoing Skin Grafting after Severe Burns

Chi Xue[1,a], Xiaoyan Duan[1,b,*], Xiangyang Zhao[1,c], Qin Zhou[2,d,*]

[1]The School of Nursing, Shaanxi University of Chinese Medicine, Xianyang, 712046, China
[2]Burn and Dermatology, First Affiliated Hospital of Air Force Medical University, Burn Center of the PLA, Xi'an, 710032, China
[a]1985219018@qq.com, [b]duanxiaoyan0622@163.com, [c]2805495225@qq.com, [d]948306480@qq.com
[*]Corresponding author

Abstract: *Based on the patient journey map, this study aimed to systematically identify the full-course experiences and multidimensional needs of young and middle-aged adults undergoing skin grafting after severe burns during the perioperative period, so as to provide evidence-based reference for constructing targeted perioperative support strategies and optimizing medical care service processes. A descriptive qualitative research method was adopted. From September 2025 to October 2025, 16 adult patients with severe burns who underwent skin grafting were selected from the Department of Burns of a Grade A tertiary hospital in Xi'an as research participants. Data were collected through semi-structured interviews, and content analysis method was used to sort out the data and construct the perioperative journey map. According to the perioperative timeline (preoperative preparation phase, surgical treatment phase, postoperative rehabilitation phase), the patients' experiences and needs were summarized from three dimensions (tasks, emotions, pain points), and the perioperative journey map of young and middle-aged adults undergoing skin grafting after severe burns was constructed. The journey map can dynamically present the changes in needs and pain points of young and middle-aged skin graft patients during the perioperative period. It provides a theoretical basis for clinically constructing a phased perioperative care system and helps to improve patients' treatment adherence and rehabilitation outcomes.*

Keywords: *young and middle-aged adults, severe burns, skin grafting, perioperative period, patient journey map, qualitative study*

1. Introduction

Burn injury, as the fourth leading injury-causing factor globally, its harmfulness and high incidence trend have become a major public health concern[1]. Based on data from the Global Burden of Disease Study 2019 (GBD 2019), Yakupu A et al. reported[2] that there were 8.955 million new burn cases worldwide, with the absolute number of cases still on the rise, and 111,000 burn-related deaths during the same period. Severe burns (deep second-degree or higher) often require skin grafting to repair wounds and restore physiological functions due to the destruction of the dermal layer and skin appendages and the loss of regenerative capacity, making it an irreplaceable method for improving the prognosis of severe burns[3]. As core bearers of social production and family responsibilities, young and middle-aged adults (18-45 years old) not only suffer from physical trauma after severe burns but also endure multiple crises caused by career disruption, economic pressure, and changes in appearance and function[4]. Moreover, as a critical phase for wound healing and functional recovery in skin graft patients, the perioperative period covers multiple links including preoperative assessment, surgical implementation, postoperative wound care, and early rehabilitation. Patients need to face a series of challenges such as surgical risks, pain management, skin graft site care, and functional training. Existing studies have shown[5,6] that young and middle-aged burn patients often experience problems such as a high incidence of anxiety and depression, fluctuations in rehabilitation training adherence, and social avoidance during the perioperative period. Essentially, this is because medical services have not fully adapted to the core demands of this group, including information needs, psychological support, and rehabilitation goals (return to work and social life). Traditional needs assessment mostly adopts cross-sectional surveys, which have limitations such as incomplete time coverage and single experience dimension, making it difficult to capture the dynamic

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changes in patients' needs during the perioperative period. As a visual research tool, the patient journey map[7], through the design of "timeline and experience dimensions", can systematically sort out patients' behavioral trajectories, emotional fluctuations, and demand characteristics throughout the medical service process. It has demonstrated unique advantages in the care of patients with diseases such as varicose veins of the lower extremities and diabetic foot ulcers, but research in the field of rehabilitation nursing for burn skin grafting remains blank[8,9]. This study aims to construct a perioperative journey map for young and middle-aged adults undergoing skin grafting after severe burns, conduct an in-depth analysis of patients' core experiences, pain point demands, and support needs at each stage, so as to provide a scientific basis for optimizing the perioperative medical care service model and assist patients in physical and mental rehabilitation and reconstruction of social functions.

2. Materials and Methods

2.1. Research Participants

Purposive sampling was adopted to select 16 young and middle-aged patients with severe burns who underwent skin grafting from the Department of Burns and Dermatologic Surgery between September and October 2025 as research participants. Inclusion criteria: Aged 18-45 years old; (2)Burn degree consistent with the criteria of Burn Classification (NCBI, 2023), i.e., deep second-degree or higher burns, with confirmed indication for skin grafting (autologous skin transplantation); (3)In the perioperative period (1 week before surgery to 4 weeks after surgery); (4)Possessing normal communication and expression abilities; (5)Voluntarily participating in the study and signing the informed consent form. Exclusion criteria: Complicated with severe underlying diseases (e.g., malignant tumors, immunodeficiency); (2) Having a history of mental and psychological disorders or cognitive impairment; (3)Unable to cooperate to complete at least one full interview. The sample size was determined based on data saturation, with a total of 16 patients enrolled, including 10 males and 6 females. Their ages ranged from 23 to 43 years old, with a mean ± standard deviation of (32.81 ±6.52) years. Regarding educational background, 6 patients had a bachelor's degree (the main group), 3 had a junior college degree, 4 had a high school degree, and 3 had a junior high school degree. For burn depth, 8 patients had deep second-degree burns (the main group), 5 had mixed-depth burns, and 3 had third-degree burns. Regarding medical expense payment methods, 5 patients had employee medical insurance, 4 had resident medical insurance, 4 had commercial insurance, and 3 paid for treatment themselves. This study was approved by the Hospital Ethics Committee (Approval No.: KY20242096-F-1).

2.2 Research Methods

Based on the construction method of patient journey maps[10,11,12], this study focused on establishing a perioperative journey map for young and middle-aged patients with severe burns undergoing skin grafting. Following the Consolidated Criteria for Reporting Qualitative Research (COREQ), data were collected through semi-structured interviews to conduct the study[13].

2.2.1 Research Team Establishment and Interview Outline Development

The research team consisted of 6 members, including 1 Head Nurse of Burns Surgery (responsible for research design and quality control), 2 Burns Specialist Nurses (responsible for interview implementation and clinical information interpretation), 1 Professor of Qualitative Research Methodology (responsible for guiding data analysis), and 2 Master's Students (responsible for data collection, transcription, and coding). All members received training on qualitative research methods and ethics to ensure the standardization of the research process. Referring to the construction standards of patient journey maps and relevant expert consensus on burn diagnosis and treatment, the perioperative period was divided into 3 main phases: preoperative preparation phase, surgical treatment phase, and postoperative rehabilitation phase. A preliminary interview outline framework was formulated, and expert consultation was conducted with 2 burns surgeons and 2 senior burns specialist nurses to optimize the expression and logical order of the outline. Pilot interviews were conducted with 2 patients who met the inclusion criteria, and the depth of questions and the popularity of language were adjusted according to feedback to finally form the formal interview outline. The specific content is as follows: (1)What diagnostic and treatment processes did you experience during the preoperative preparation phase/surgical treatment phase/postoperative rehabilitation phase? What were the memorable events? (2)What treatment- or rehabilitation-related tasks did you need to complete in each phase? What difficulties or conveniences did you encounter in the process? (3)What changes did you experience in your mood during

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each phase? What caused these emotional changes? (4)During the medical treatment and rehabilitation process, which aspects made you feel dissatisfied or troubled? (5)What kind of help or support did you need most in each phase? Did the support you currently receive meet your needs? (6)What roles did family members, medical staff, friends, or colleagues play in your perioperative care?

2.2.2 Data Collection Methods

A trusting relationship was established with patients before the interview, and the research purpose, interview duration, purpose of audio recording, and confidentiality principle were clearly explained, followed by signing the informed consent form. The interview timing was determined based on the patient's stable condition: interviews were conducted after surgery when the wound healed well and pain was tolerable. The interview location was a quiet ward, and each interview lasted 30-45 minutes, with audio recording throughout with the patient's consent. Participants were numbered P1 to P16, and each participant was interviewed once. The interview was terminated after data saturation was reached.

2.2.3 Data Collation and Analysis

Conventional content analysis was used for data collation and analysis, with the following specific steps: (1)Repeatedly reading transcribed texts and medical records to familiarize with the data; (2) Marking meaningful expressions; (3)Conducting preliminary classification of marked content and extracting initial concepts; (4)Classifying and merging initial concepts to form themes; (5)Selective coding: combining the research purpose and patient journey map framework to further integrate themes into core themes; (6)Sorting out the internal connections between themes in each phase, and constructing the journey map according to the "timeline (phases) - dimension axis (tasks, emotions, pain points)" until theme saturation was achieved.

3. Results

3.1 Construction of the Patient Journey Map

The perioperative journey map for young and middle-aged patients with severe burns undergoing skin grafting consists of a horizontal axis (timeline) and a vertical axis (dimension axis). Based on the perioperative diagnostic and treatment processes and patients' rehabilitation progress, the horizontal axis is divided into three phases: preoperative preparation phase, surgical treatment phase, and postoperative rehabilitation phase. Built on the patients' core perioperative experiences, the vertical axis, through the analysis of data from 16 patients, systematically presents the patients' specific tasks, emotional fluctuations, and pain points during the perioperative period. Ultimately, the perioperative journey map for young and middle-aged patients with severe burns undergoing skin grafting was successfully constructed (Fig. 1).

3.2 Preoperative Preparation Phase

3.2.1 Tasks

(1) Cooperation with diagnostic evaluation: Completing wound examination, imaging examinations, laboratory tests, etc., and providing burn-related information.

P3: "The doctor needed to know the details of the burn. I also had to cooperate with various tests, like blood draws and X-rays, which made me feel quite anxious."P12: "After facial burns, the doctor repeatedly checked the depth of the wound. Every examination made me worry about poor results."

(2) Surgical decision-making and informed consent: Understanding the surgical plan, signing the surgical consent form, and weighing the risks and benefits of the surgery.

P6: "The doctor explained the differences between autologous skin transplantation and allogeneic skin transplantation. I hesitated for two days and finally chose autologous skin transplantation."P9: "The surgical consent form listed a bunch of risks— infection, bleeding, skin graft failure. The more I read, the more scared I got. I didn't dare to sign until the doctor explained patiently."

(3) Implementation of preoperative preparation: Completing skin preparation, fasting and water deprivation, control of underlying diseases, etc., as prescribed by the doctor.

P5: "Before the surgery, I had to shave the hair in the skin donor and recipient areas. The doctor said this could reduce the risk of infection." P15: "Before the surgery, the doctor told me to take

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antihypertensive drugs regularly and monitor my blood pressure to avoid blood pressure fluctuations during the surgery that might affect the mostasis."

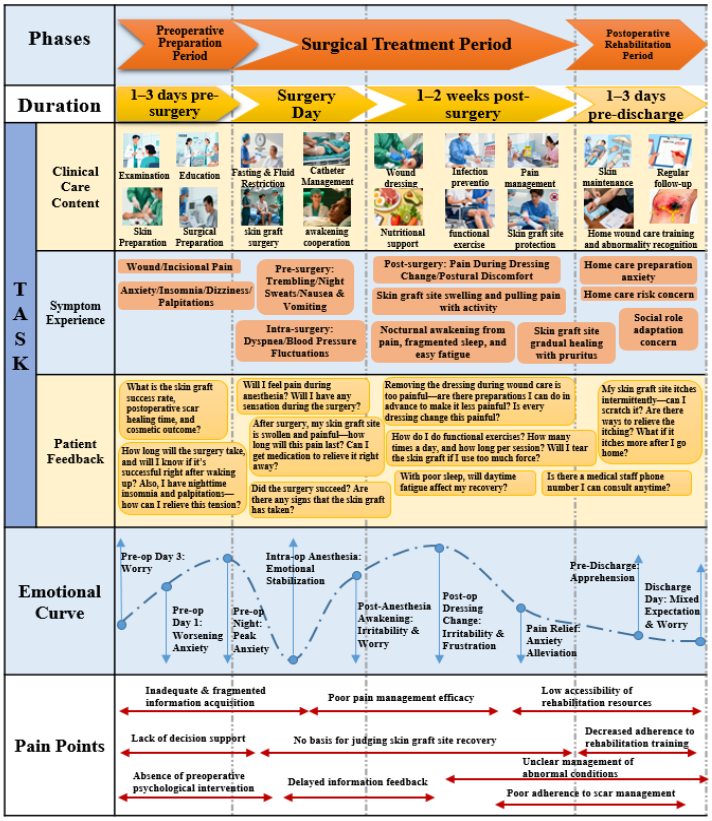

Fig. 1 Perioperative Journey Map of Young and Middle-Aged Adults Undergoing Skin Grafting After Severe Burns

3.2.2 Emotions

(1) Anxiety about surgical risks: Worrying about surgical failure, complications, etc.

P4: "Just thinking about skin grafting on my face, I was afraid of surgical failure and necrosis of the grafted area, which would make me look even worse. "P11: "I heard from a fellow patient that someone had an infection after skin grafting and needed a second surgery. I was particularly afraid of encountering the same situation."

(2) Crisis of self-identity: Feeling inferior and depressed due to changes in appearance and function.

P2: " The skin scars are uneven. I can't wear shorts or skirts in summer. Thinking that I'll be like this forever makes me feel very inferior."P12: " After facial skin grafting, there will be obvious scars. I'm afraid that students will look at me with strange eyes, and I've lost confidence in my work."

(3) Anxiety caused by economic pressure: Worrying about excessive medical expenses affecting the family's finances.

P6: "I paid for the treatment myself. The first surgery has already cost more than 30,000 yuan. If the skin graft fails, I'll need a second surgery. I'm really afraid I can't afford it."P16: "The surgical and hospitalization fees have almost exhausted the family's savings. I have elderly parents to support and young children to raise. I really don't know what to do. The pressure is extremely high."

3.2.3 Pain Points

(1) Insufficient and fragmented information acquisition: Incomplete understanding of surgical procedures, postoperative recovery, scar management, etc., and overly professional explanations from medical staff.

P8: "The doctor said 'the survival rate of skin grafts mainly depends on blood supply,' but I didn't understand what blood supply means at all, and I didn't know if my condition had good blood supply."

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P13: "Different doctors had different opinions. Some said I could get out of bed one week after the surgery, while others said two weeks. I didn't know who to listen to."

(2) Lack of decision support: Facing the choice of surgical plans, lacking personalized guidance, and being interfered by relatives and friends' opinions.

P6: "My family wanted me to choose allogeneic skin, saying it wouldn't require skin harvesting and would cause less suffering, but the doctor recommended autologous skin. I couldn't make up my mind."

P9: "A friend said someone he knew had obvious scars after skin grafting and told me not to have the surgery. I was already hesitant, and his words made me even more tangled."

(3) Lack of preoperative psychological intervention: Anxiety not effectively alleviated, and difficulty in self-regulation.

P4: "I was anxious every day before the surgery and couldn't sleep at night. I told the nurse once, but she just comforted me, 'Don't worry.'"P12: "I couldn't help crying when thinking about the surgery and postoperative scars, and my mood got worse and worse. The medical staff were busy dealing with the wound and didn't have much time to pay attention to my feelings."

3.3 Surgical Treatment Phase

3.3.1 Tasks

(1) Cooperation on the day of surgery: Completing preoperative verification, anesthesia cooperation.

P5: "On the morning of the surgery, the nurse repeatedly verified my information and surgical site, and helped me establish an intravenous access. The anesthesiologist asked in detail about my allergy history."P11: "I didn't feel anything after anesthesia. When I woke up, I was already in the ward. The nurse told me to observe my breathing and whether there was bleeding in the grafted area, and to report any abnormalities in time."

(2) Cooperation with acute postoperative care: Monitoring vital signs, protecting the grafted area, and cooperating with pain assessment and management.

P6: "The grafted area was wrapped with gauze after the surgery. The nurse told me to keep the limb immobilized and not to move around. She also took my temperature and blood pressure regularly."P13: "The doctor said I needed to observe the exudation of the grafted area. If there was a lot of bleeding or an abnormal odor, I should inform them in time. I checked the gauze carefully every day."

(3) Management of basic physiological needs: Cooperating with diet, defecation, position care, etc.

P8: "I could only drink water and eat six hours after the surgery. The nurse brought me liquid food and taught me how to defecate in bed to avoid pressing the grafted area."P16: "After skin grafting, the nurse told me to maintain a semi-recumbent position and reduce activities. Although it was uncomfortable, I persisted for the survival of the skin graft."

3.3.2 Emotions

(1) Fear and intolerance of pain: Severe postoperative pain, fear of pain, and poor pain tolerance in some patients.

P6: "After the anesthetic wore off, both the grafted area and the donor area hurt severely. I couldn't help shaking and was particularly afraid that the pain would last forever."P9: "Changing the dressing required removing the gauze, which pulled the wound. It hurt so much that I cried. I felt very nervous and scared before each dressing change."

(2) Worry about skin graft survival: Paying close attention to the condition of the grafted area and worrying about necrosis, infection, etc.

P4: "I stared at the gauze on the grafted area every day, fearing excessive bleeding or exudation. When the doctor made rounds, I quickly asked, 'Is the skin alive?' I didn't feel at ease until the doctor said 'the blood supply is very good.'"P12: "I heard that the first three days after skin grafting are a critical period. I couldn't sleep at all during these three days, always worrying about problems at night."

(3) Helplessness and dependence: Limited physical activity after surgery, inability to take care of oneself, and dependence on medical staff and family members for care.

P2: "I couldn't get out of bed after skin grafting on both lower extremities. Eating, drinking, and

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turning over all relied on my family and nurses. I felt useless and very frustrated."P15: "After the surgery, I felt dizzy and weak, and didn't even have the strength to speak. I could only passively accept care, not knowing when this kind of life would end."

3.3.3 Pain Points

(1) Poor pain management effect: Delayed pain assessment and insufficiently targeted analgesic plans.

P6: "I'm very sensitive to pain, but the painkillers prescribed by the doctor didn't work well. I couldn't stand the pain during dressing changes, and the doctor adjusted the medication only after I told him."

P9: "The nurse only asked me if I was in pain regularly, but didn't adjust the analgesic plan in a timely manner according to my situation. Sometimes the pain was severe, but no one cared."

(2) Difficulty in protecting the grafted area: Discomfort from limb immobilization, difficulty in maintaining immobility for a long time, and fear of accidental damage to the grafted area.

P13: "After skin grafting on the upper extremity, I had to keep it in an extended position. After a long time, my arm felt sore and numb, and I couldn't help but want to move, but I was afraid of damaging the skin graft. I was very tangled."P16: "My child is still young. Sometimes he accidentally touches my neck grafted area. Every time, I get scared and my heart beats fast, fearing that the skin graft will die."

(3) Delayed information feedback: Medical staff are busy and cannot timely inform the patient of the skin graft survival status, which aggravates anxiety.

P4: "The doctor didn't make rounds on the second day after the surgery. I was worried about the skin graft condition and went to the nurse several times, but the nurse couldn't explain clearly. It wasn't until the third day that the doctor told me 'the skin is alive.'"P12: "I wanted to know the specific condition of the grafted area, but the doctor was in a hurry every time he made rounds and only said 'it's fine' without detailed explanation. I still felt uneasy."

3.4 Postoperative Rehabilitation Phase

3.4.1 Tasks

(1) Wound care and observation: Performing home wound cleaning and dressing changes, observing wound healing, and preventing infection.

P6: "I clean the wound with disinfectant every day, then apply ointment and bandage it. I also observe for redness and exudation, and return to the hospital for follow-up in time if there are any abnormalities."

P13: "The donor area healed slowly. I checked it carefully every day for signs of infection and took care of it according to the doctor's instructions."

(2) Functional rehabilitation training: Conducting joint movement and muscle contraction training to prevent scar contracture and dysfunction.

P9: "After skin grafting, joint movement was limited. The rehabilitation doctor taught me to do stretching and bending exercises for 15 minutes every day. Although it hurt, I persisted in practicing every day to restore function."P16: "After skin grafting, I needed to do rehabilitation training. It was particularly painful at first, and I was sweating profusely after practicing for a while, but I gritted my teeth and persisted."

(3) Scar management: Wearing pressure garments, applying anti-scar drugs, and observing scar changes.

P4: "The doctor said I needed to wear a pressure garment after the surgery. Although it was very stuffy in summer, I persisted in wearing it to reduce scar hyperplasia."P12: "I apply anti-scar ointment to my facial scars every morning and evening, and massage them for 10 minutes each time, hoping the scars will fade."

(4) Preparation for social adaptation: Adjusting mentality and preparing to return to work and social life.

P3: "I'm almost recovered. I started thinking about how to explain my scars to my colleagues and whether I can work normally as before."P8: "I'm preparing to return to work. I communicated with my leader in advance about my situation, hoping to adjust my work content to avoid overwork and sun exposure."

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3.4.2 Emotions

(1) Fluctuations in rehabilitation confidence: Easily feeling frustrated when functional recovery is slow or scar hyperplasia is obvious; confidence increases when seeing rehabilitation progress.

P9: "After rehabilitation training, there was still no significant improvement in joint mobility. I felt a little discouraged."P5: "After persistently wearing the pressure garment, the scar flattened and the joint movement became more flexible. I felt that as long as I persisted, things would get better and better."

(2) Social avoidance and inferiority: Unwilling to participate in social activities due to scarring and changes in appearance, and worrying about others' strange looks.

P2: "The scars on both lower extremities are very obvious. I dare not wear shorts in summer and don't want to attend friend gatherings, for fear that others will stare at my scars. I feel very inferior."P12: "Although the facial scar has faded a little, it's still visible. I wear a mask every time I go out and dare not take it off."

(3) Burnout from long-term care: Physical and mental exhaustion from long-term adherence to rehabilitation training and scar management.

P6: "I have to change dressings, apply ointment, and do rehabilitation training every day. Day after day, I feel very tired. Sometimes I really want to give up, but I'm afraid it will affect the rehabilitation effect."P13: "Taking care of myself takes a lot of time and energy. I have no time to take care of family matters, which makes me feel very stressed and my mood is getting worse and worse."

3.4.3 Pain Points

(1) Low accessibility of rehabilitation resources: Lack of professional rehabilitation guidance in the community, long distance and high cost of follow-up visits.

P3: "My home is far from the hospital. Traveling back and forth is very tiring. The community hospital doesn't have burn rehabilitation guidance. I can only call the doctor when I have questions."P7: "I don't know if I'm doing the rehabilitation training movements correctly. Sometimes my joints feel stiffer after training."

(2) Decreased adherence to rehabilitation training: intolerable pain during training and insignificant training effects.

P9: "The rehabilitation training was too painful. Every time I practiced, I cried. After practicing for a period of time without seeing obvious effects, I didn't want to practice anymore."P16: "Sometimes I didn't have time to do rehabilitation training and gradually slacked off."

(3) Poor adherence to scar management: Discomfort from wearing pressure garments (stuffy, itchy) and slow effect of anti-scar drugs leading to difficulty in persistence.

P4: "Wearing the pressure garment was sometimes stuffy and itchy. I wanted to take it off sometimes and couldn't persist."P12: "After applying the anti-scar ointment, the scar fading effect was not obvious. I thought the medicine was useless."

(4) Neglect of self-health: Overly focusing on wound and functional recovery while ignoring other health issues.

P6: "Sometimes I forgot to take my antihypertensive drugs and only remembered when I felt dizzy. I'm really afraid it will affect other parts of my body."P8: "During rehabilitation, I always stayed up late thinking about rehabilitation methods. Lack of sleep led to decreased immunity."

4. Discussion

4.1 The Patient Journey Map Can Dynamically Capture the Perioperative Needs of Young and Middle-Aged Burn Patients Undergoing Skin Grafting

By constructing a perioperative journey map for young and middle-aged patients with severe burns undergoing skin grafting, this study systematically presented the full-course experiences of patients from preoperative preparation to postoperative rehabilitation through a dual framework of "timeline-dimension axis," making up for the limitations of traditional cross-sectional surveys in needs assessment. Most existing studies on the needs of burn patients focus on a single phase or dimension, such as preoperative anxiety[14] or postoperative pain management[15], which fail to reflect the dynamic changes

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in needs during the diagnostic and treatment process. As a visual tool, the patient journey map has the advantage of integrating multidimensional information including "behavioral tasks-emotional fluctuations-pain point demands-satisfactory experiences" to form a continuous demand trajectory. In this study, the discovery of cross-phased pain points such as "insufficient and fragmented information acquisition" in the preoperative period, "poor pain management effect" in the surgical treatment period, and "low accessibility of rehabilitation resources" in the postoperative period relied on the dynamic tracking characteristics of this tool, confirming its applicability in the field of burn skin graft nursing. A study[9] by Wu YX et al. on elderly patients with diabetic foot ulcers also showed that the journey map can accurately locate the specific care needs of different disease groups. This study, however, focuses on the unique demands of young and middle-aged groups, providing new empirical support for the application of this tool in trauma patients of specific age groups. This result suggests that clinical nursing service models can formulate more targeted intervention strategies based on the phased demand characteristics presented by the journey map.

4.2 Intrinsic Correlation between the Characteristics of Young and Middle-Aged Groups and the Specificity of Perioperative Needs in Burn Skin Grafting

The study found that due to the group characteristics of "main labor force," "strong social needs," and "sensitive self-identity," young and middle-aged patients with severe burns undergoing skin grafting exhibit significant specificity in their perioperative needs, which is closely related to their core role in the social structure. As the main bearers of family economy and social production, one of the most prominent pain points of young and middle-aged patients before surgery is "anxiety caused by economic pressure," and they pay high attention to "preparation for return to work" after surgery. This is consistent with the research conclusion of Katsu et al. [4]—working-age adults have a strong willingness to return to employment after burns but face multiple barriers such as physical dysfunction and occupational discrimination. At the social and self-identity level, the incidence of "social avoidance" and "inferiority emotions" in young and middle-aged patients after surgery is significantly higher than that in other age groups, which is closely related to the high attention of individuals in this stage to appearance and social evaluation. Patients with burns on exposed parts such as the face and hands have more prominent crises of self-identity, such as mentioning "fear of being more ugly if skin graft fails" and worrying about "students looking at me with strange eyes." This phenomenon is consistent with the pathogenesis of body image disturbance after burns[16]. Most existing studies focus on the overall psychological state of burn patients, while this study captured the emotional evolution trajectory of "preoperative self-identity crisis-intraoperative helplessness and dependence-postoperative social avoidance" through the journey map, revealing the dynamic changes of psychological needs with the progression of the disease and providing targets for phased psychological interventions. In addition, the strong demand for "social integration" of young and middle-aged patients requires clinical care to not only focus on physical rehabilitation but also extend to social support and occupational adaptation, which is highly consistent with the core goals of existing burn rehabilitation nursing[17].

4.3 Implications for Constructing a Perioperative Care System for Burn Skin Grafting

Through the journey map, this study found that young and middle-aged skin graft patients experience multiple resource losses during the perioperative period, including physical function (limited limb movement, pain), economic (medical expenses, loss of working time), social (social avoidance, interpersonal isolation), and psychological (anxiety, low self-identity) aspects. The core of effective care support lies in resource supplementation and loss buffering. The research results provide a basis for constructing a phased care system of "information support-psychological intervention-skill training-social integration." At the level of information support, preoperative patients lack cognitive resources, manifested as insufficient and fragmented information acquisition. Both existing studies[18] and this study have confirmed that structured disease information can reduce surgical anxiety and improve treatment adherence. Therefore, before surgery, systematic information on surgical procedures, risk prevention and control, and postoperative rehabilitation should be provided through popularized manuals, case videos, and one-on-one consultations. At the level of psychological intervention, young and middle-aged patients have prominent anxiety and depression that persist throughout the perioperative period. A continuous intervention model of "preoperative emotional counseling-intraoperative pain empathy-postoperative self-identity reconstruction" needs to be established. Techniques such as mindfulness-based stress reduction (MBSR) [19] and cognitive behavioral therapy (CBT)[20] should be introduced, and psychological resources should be supplemented by family and peer support such as family companionship and communication with fellow patients. At the level of skill training and social

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integration, problems such as low accessibility of postoperative rehabilitation resources and decreased training adherence are prominent, requiring the construction of a "hospital-community-family" rehabilitation support network. Schoenbrunner et al. emphasized[21] that early standardized rehabilitation training after surgery is crucial for avoiding scar contracture and restoring function, while the lack of community rehabilitation resources affects the effect of home-based training. Therefore, it is necessary to strengthen the training of community burn rehabilitation specialist nurses and optimize the accessibility of rehabilitation resources through online guidance and regular follow-up. Meanwhile, in collaboration with social institutions, social skills training and occupational adaptation assessment services should be carried out to help patients rebuild social and occupational resources, ultimately achieving physical and mental rehabilitation and reconstruction of social functions.

5. Conclusion

Through semi-structured interviews, this study obtained the perioperative experiences and core needs of young and middle-aged patients with severe burns undergoing skin grafting, constructed a perioperative journey map, and identified intervention entry points. However, this study adopted a descriptive qualitative research method, and patients' retrospective self-reports may lead to expression bias; in addition, the interviewees were recruited from only one Grade A tertiary hospital, which limits the representativeness of the research results. Future research should use digital technologies to conduct multi-center dynamic follow-up interviews, explore the evolutionary rules of patients' needs, promote full-cycle perioperative care, and improve the quality of patients' physical and mental rehabilitation outcomes and social function reconstruction.

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