

Research on Nursing Methods and Psychological Intervention for Scar Repair

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Abstract: Scar repair involves not only the application of medical techniques but also the consideration of the patient's psychological state. Through appropriate nursing measures, wound healing can be effectively promoted, complications can be reduced, and hypertrophic scarring can be prevented. Psychological intervention, by alleviating negative emotions such as anxiety and depression, improves patient compliance with treatment and enhances self-management abilities, thereby promoting recovery. Research indicates that the combination of nursing interventions and psychological counseling helps improve the overall recovery experience for patients, facilitating scar repair physiologically while also providing psychological support, thus enhancing the patient's quality of life. The multidisciplinary collaboration model offers a comprehensive treatment plan, further optimizing the scar repair process.

Keywords: Scar repair; Nursing methods; Psychological intervention; Patient recovery; Psychological counseling

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1. Introduction

Scars are a common natural healing phenomenon following skin trauma or surgery, and their appearance and functional impairment can significantly impact the physical and mental health of patients. Severe scars, in particular, may lead to changes in body shape and psychological distress. Therefore, nursing care and psychological intervention during the scar repair process are of utmost importance. Nursing methods play a key role in the treatment of scars, including wound management, scar prevention, and the prevention of complications. The patient's psychological state, especially their perception of the scar and emotional reactions, can also affect recovery outcomes. This paper will focus on exploring the nursing techniques and psychological interventions in scar repair, and how they work together to promote the overall recovery of patients.

2. Nursing methods in scar repair

2.1. Wound care and nursing

Wound care is the foundation of scar repair. Proper cleaning, disinfection, and dressing can effectively prevent infection, thereby reducing the risk of scar hypertrophy. The wound should be cleaned as soon as possible using a non-irritating antiseptic solution (such as saline or iodine tincture) to gently cleanse the wound surface, removing dirt and bacteria. Harsh disinfectants should be avoided to prevent skin irritation. After disinfection, the wound should be kept dry and covered with a sterile dressing to isolate it from external bacteria. Regular dressing changes not only help keep the wound clean but also allow for timely observation of wound healing. If infection or abnormalities are detected, appropriate measures should be taken immediately. The wound's ventilation is also crucial—excessive occlusion can cause moisture buildup, delaying the healing process. Adequate airflow helps dry the wound, promotes scab formation, and the development of new skin, thereby reducing scar formation.

2.2. Topical medications and therapies

Topical medications play a key role in scar repair, with common drugs including silicone gel, anti-itch ointments, and antibiotics. Silicone gel, as an external medication, forms a thin film that effectively locks in moisture, softens scar tissue, and promotes fibrosis, thereby reducing scar hypertrophy. Ointments such as corticosteroid creams can effectively reduce inflammation at the scar site and prevent excessive tissue growth. Physical therapies, such as laser treatment and ultrasound therapy, are widely used in scar repair. Laser treatment applies precise light beams to scar tissue, improving the scar's appearance and reducing pigmentation. Ultrasound therapy, through vibrations, promotes the absorption of scar tissue and enhances blood circulation, improving the quality of scar healing.

2.3. Postoperative care and prevention of complications

Postoperative care directly affects the scar repair outcome, especially in the early stages, where nursing interventions are crucial. First, avoiding friction and stretching of the scar can effectively reduce the risk of hypertrophic scarring. Postoperatively, patients should limit physical activity, particularly excessive stretching of the wound site, and avoid strenuous labor too soon. Secondly, infection prevention is an important task in postoperative care. Antibiotic therapy should be used to prevent infection while keeping the wound clean and dry. Lastly, for patients at high risk of developing hypertrophic scars (such as those with genetic predisposition), early preventive treatments, such as silicone dressings or pressure therapy, can be applied to reduce the likelihood of excessive scarring.

3. The role of psychological intervention in scar repair

3.1. Psychological assessment and intervention strategies

In the process of scar repair, the patient's psychological state is often overlooked, yet emotional issues such as anxiety, depression, and low self-esteem can affect recovery outcomes. Therefore, conducting a systematic psychological assessment is essential. The assessment includes a comprehensive evaluation of the patient's emotional state, cognitive biases, and social adaptation abilities, identifying potential psychological issues. Based on this evaluation, cognitive-behavioral therapy (CBT) can be used to help patients identify negative emotions and thought patterns and to improve their psychological state by adjusting cognitive structures. Supportive therapy provides emotional support, empathy, and encouragement, helping patients actively engage in the treatment process, boosting their confidence, alleviating anxiety and depression, and promoting recovery.

3.2. Emotional regulation and counseling methods

Emotional regulation is crucial for psychological intervention during scar repair. Talk therapy is an effective approach, as it establishes a trusting relationship with the patient, allowing them to express internal struggles, reduce psychological pressure, and release negative emotions. Additionally, group psychological support is a beneficial intervention method. By communicating with other patients and sharing treatment experiences, patients can feel social support, alleviating feelings of loneliness and helplessness. Emotional regulation training and relaxation techniques (such as deep breathing and meditation) can also help patients reduce anxiety, restore psychological balance, and promote self-healing.

3.3. Patient education and enhancement of self-management skills

Patient education is an important means of improving treatment compliance. Educating patients about the scar repair process and key considerations helps them set realistic expectations, reducing excessive or insufficient expectations of treatment outcomes, and thereby alleviating anxiety. Furthermore, educating patients on self-management, including wound care, medication usage, and psychological regulation, can enhance their sense of participation and control over the treatment process, improving compliance. Strengthening self-management skills not only helps patients better cooperate with treatment but also provides psychological support, promoting the simultaneous recovery of both physical and mental health.

4. Integrated application of nursing methods and psychological intervention

4.1. Advantages of integrated nursing and psychological intervention

The combination of nursing methods and psychological intervention can significantly enhance the overall effect of scar repair. Single nursing measures or psychological interventions may be limited to local treatment, whereas integrated nursing and psychological intervention can systematically promote both physiological and psychological recovery for the patient. Nursing methods primarily focus on wound management, medication treatment, and prevention of complications, while psychological intervention helps patients alleviate negative emotions such as anxiety and depression through emotional regulation, cognitive adjustment, and social support. The combination of both can enhance patient compliance, promote wound healing, alleviate the psychological distress caused by scars, improve the patient's quality of life, and accelerate overall recovery.

4.2. Development of personalized nursing and intervention plans

Developing personalized nursing and psychological intervention plans is crucial for different types of scar patients. Factors such as the patient's physical condition, the nature of the trauma, psychological state, and cultural background all influence the treatment outcomes. Therefore, nursing staff and psychological intervention experts need to conduct a precise assessment based on the patient's specific situation and design a treatment plan that suits their needs. For example, for patients with severe psychological distress, in addition to regular nursing care, enhanced psychological counseling should be provided, using cognitive-behavioral therapy to alleviate anxiety or depressive emotions. For patients with higher self-management capabilities, the focus can be on education and guidance to improve their autonomous nursing abilities, reduce dependence on medical interventions, and promote recovery.

4.3. The necessity of multidisciplinary team collaboration

The nursing and psychological intervention for scar repair requires the collaborative efforts of a multidisciplinary

team. Surgeons, nurses, psychotherapists, and other relevant professionals should work together to develop a comprehensive treatment plan based on the patient's specific needs. Surgeons are responsible for the medical treatment of scars and surgical procedures, nurses provide professional nursing services, including wound care and postoperative follow-up, while psychotherapists assess and intervene in the patient's psychological state and offer emotional support. Through close teamwork, both physiological and psychological support can be provided comprehensively, ensuring the maximization of treatment effectiveness, as well as improving patient satisfaction and treatment compliance.

5. Conclusion

Scar repair is a complex process that requires not only scientific nursing methods but also attention to the patient's psychological state. The combination of nursing methods and psychological intervention can significantly improve the outcomes of scar repair and promote the patient's overall recovery. Through the development of personalized nursing plans and multidisciplinary team collaboration, comprehensive support can be provided to patients, enhancing treatment compliance and reducing psychological distress. Future research and practice should place greater emphasis on bidirectional interventions for both physical and psychological aspects, further optimizing treatment plans and promoting the overall physical and mental health of patients.

Disclosure statement

The authors declare no conflict of interest.

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