Roles and Functions of Occupational Therapy in Burn Care Delivery

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This paper describes the role of occupational therapy in the delivery of burn care and reaffirms the profession’s commitment to provide quality care to patients with burn injuries.

This roles and functions paper reflects the recommended practice in this area but is not binding. Occupational therapy personnel need to be informed about organization codes and policies; federal, state and local laws; and professional licenses and regulations. Any of these codes or regulations may negate or revise the content of this paper.

Historical Perspective

Occupational therapy personnel have been involved in the care and treatment of burn patients for many years. Their focus has included preventing contractions, minimizing scar rate, improving the performance of skills, and promoting independence for re-entry into society. They have worked as members of the burn care team to help the burn patient achieve the optimal level of function consistent with the individual’s desires, capacities, and abilities.

Philosophical Base of Occupational Therapy

Occupational therapy personnel believe that prevention and remediation of dysfunction can occur through the use of occupations (activities, tasks) that have purpose and meaning to the individual. In treatment, the occupational therapy personnel encourage and support the burn patient’s efforts to perform the daily tasks of living and to regain skills in productive and leisure pursuits. For people to return as early as possible to active participation in their life roles, occupational therapists also use orthoses, positioning aids, and pressure garments to minimize deformity.

Occupational Therapy Education and Qualifications

The occupational therapy personnel’s academic and clinical education includes courses in the biological, behavioral, and medical sciences. This diversified base serves as a foundation for understanding problems that may develop in skills which are needed for physical daily living, work, and play. Such education and training prepares occupational therapy personnel to select appropriate therapeutic media and modalities which facilitate the restoration and maintenance of physical, mental, and social skills for patients with burn injuries. Course work and clinical experience of particular importance in burn care include medical and surgical rehabilitation, task and function analysis, and the knowledge and use of exercise physiology for increasing range of motion, strength, and endurance. Principles and techniques for splinting, positioning, and controlling edema, pain, and inflammation are also learned. The use of activities and techniques to facilitate psychosocial adjustment, which is an important aspect of burn care, make up a significant portion of occupational therapy education. The selection of optional fieldwork placements in burn care facilities enhances the academic course work and better prepares the therapy personnel for work with burn patients. Occupational therapy personnel who have graduated from an accredited or approved curriculum and have passed the AOTA Certification Examination are qualified to participate as members of the burn care team. Therapists working with complex burn cases should have advanced education, which may be gained in professional education courses or by clinical training.

Screening and Referral

Screening is conducted to determine the need for occupational therapy in each patient’s case. The occupational therapist screens the patient by interview, observation, administration of screening tests, and medical record. Screening is often done in collaboration with other members of the burn care team and sometimes occurs in the emergency room. Patients with burns in the acute care stage are screened to identify the presence of, or potential for, problems such as edema, decreased range of motion, graft damage, abnormal sensation, contractures, muscle and joint malalignment, and psychological adjustment. Patients in the later stages of healing are screened for problems such as hypersensitivity, decreased range of motion, contractures, hypertrophic scarring, inability
to perform physical daily living skills, difficulties pursuing vocational interests, and psychological adjustment. Screening may occur before or after a referral is made, and the specific process will vary from setting to setting.

Referrals may be made by any member of the health care team within limits of existing regulations. State licensure laws, accrediting agency regulations, reimbursement regulations, and policies of individual institutions may require a physician referral for assessment or treatment or both.

**Assessment**

The timeliness of the initial evaluation is critical for effective treatment planning for patients with burn injuries. This assessment process may be initiated during the patient’s admission to the unit or as an outpatient. Assessment measures focus on sensorimotor, cognitive, and psychosocial performance levels. Depending on the severity of the injury and the wound healing stage, the assessment will also emphasize the level of performance in self-care, work, play, and leisure tasks. A major role of an occupational therapist is to determine the need for orthoses, positioning aids, assistive and adaptive equipment, pressure gradient devices, and garments for scar control.

Whenever possible, standardized tests and objective data are used to document the patient’s status. In burn cases, emphasis is placed on identifying existing or potential problems such as edema, decreased range of motion, pain tolerance, contractures, scarring, graft protection, and muscle and joint function. Psychological adjustment and status is assessed in conjunction with the patient’s support system. Environmental conditions and resources are also assessed. These findings are combined with demographic and medical data to ensure development of a thorough and effective program plan.

**Individual Program Planning**

Based on the assessment results, the occupational therapist establishes a program plan in collaboration with the patient and other members of the burn care team. The program plan includes short- and long-term goals and the methods to achieve these goals. In developing the program plan, the occupational therapist takes into consideration the location, size, and depth of burns; associated injuries; medical status; and previously existing conditions. The patient’s age, degree of cooperation, motivation, and previous life style also affect the program planning process. The program plan is developed with the primary focus on the prevention of deformities so that the patient’s life style will be impaired as little as possible.

**Individual Program Implementation**

The occupational therapy program plan and the implementation methods vary with the stages of wound recovery. Throughout implementation, the program plan is coordinated closely with other team members. During the acute phase treatment is directed toward maintenance of function through the prevention of deformities. As soon as the patient is medically stable, instruction and patient performance of self-care activities are initiated. Adaptive devices may be used in this early phase to increase the patient’s independent performance and are discontinued as soon as function returns.

A major role the occupational therapist performs in the care of patients with burns is the design and fabrication of orthoses, proper positioning of the patient, and range of motion. Splinting and positioning techniques are used to prevent deformities by decreasing edema, preventing contractures, and increasing range of motion. They are also used to prevent skin breakdown and to protect graft sites. As the burn wound heals and the skin matures, pressure gradient devices and garments are used to minimize scarring. Frequently, splinting, positioning, and pressure garments can prevent the need for or decrease the amount of reconstructive surgery.

A variety of activities are used to maintain or increase range of motion, strength, and endurance. Sensory abnormalities vary with the depth and size of the burn wound, and activities are used to facilitate normal sensation. Because pain can be a limiting factor in exercise and activity performance, patient education and coping techniques are part of the program implementation from the initial stages.

With severe burns, the patient may experience losses and changes in cognitive functions due to a variety of physiological and psychological factors. Disorientation and decreased memory may affect the patient’s ability to perform parts of the program plan. When applicable, the occupational therapist structures the implementation of the program plan and uses activities and techniques to maintain and increase cognitive functions.

Patients with burns are faced with psychological adjustment even if the wound is small enough to affect life-style changes for only a short time. Those with more severe wounds may have long-term hospitalization, may be separated from loved ones, and may experience significant life style changes. Patients may experience many emotions, including anxiety, fear, guilt, and anger. Depression is frequently experienced by burn-injured patients. People in the patient’s support system also experience many of the same emotions and adjustments. The psychological status of the patient is monitored closely because rapid and extensive fluctuations may occur. In the implementation of the occupational therapy program plan, specific activities and methods may be used to help alleviate psychosocial problems. Families and patients may be included in group activities focused on life style changes,
acceptance, and self-esteem. With children, the occupational therapist may visit the school to educate others to increase acceptance and decrease anxiety when a child returns to school. Early intervention by occupational therapy personnel and the coordinated efforts of the burn care team can help the patient return to a satisfying life style.

In the later stages of treatment, as the patient's wounds heal, skin care becomes an aspect of occupational therapy intervention. Frequently, this role is shared with other members of the burn care team. Patients may be instructed in lubrication, protection from the sun, avoidance of temperature extremes, hygiene, and recognition of skin conditions that may need medical attention.

When the patient's medical condition permits the consideration of returning to work, vocational assessment and work tolerance may be important aspects of occupational therapy intervention. Environmental adaptations, psychological preparation, and work hardening can facilitate a patient's early return to work.

Periodic reassessments are performed as the patient's status and goals change during the program plan implementation. Follow-up and outpatient visits are essential for most patients because of changes that occur in the healing process. Burn scars and the patient's level of function need to be monitored until the scars have matured and maximum recovery is achieved.

Discontinuation of Service

Occupational therapy services are discontinued when the patient achieves the program goals or the maximum benefit from the services. In collaboration with the patient, family, other significant persons, and the burn care team, a discharge and follow-up plan is developed and instituted. Because of the length of time for the burn scar to mature and the psychological adjustments associated with many burn injuries, the process of discontinuing services is usually gradual in order to maintain maximum performance of the patient.

Indirect Services

Indirect services such as management, supervision, quality assurance, consultation, and research are important components of the occupational therapist's role in burn care. Management is concerned with the delivery of effective care in a cost-efficient manner. The quality and appropriateness of occupational therapy services are monitored through the use of quality assurance programs, including participation in accreditation procedures.

Occupational therapists frequently provide consultation services to insurance companies, industry, schools, and designers and manufacturers of equipment. Technological advances in the treatment of burn injuries offer ongoing opportunities for collaborative research to improve the quality of care of the patient with burn injuries.

Legal and Ethical Implications

The delivery of care for patients with burns must be in accordance with state licensure laws, facility regulations, AOTA Standards of Practice (1), AOTA Principles of Occupational Therapy Ethics (2), and the Policy on Use of Modalities (3).

Confidentiality of records and reports must be maintained by occupational therapy personnel in conformance with local, state, and federal laws and regulations, policies of the institution or agency, and AOTA Principles of Occupational Therapy Ethics (2).

Summary

The occupational therapist functions as an integral member of the burn care team and assists patients in achieving an optimal level of independence and a satisfying life style after a burn injury. With early assessment and ongoing occupational therapy intervention, an individual recovering from a burn injury should be able to return to a functional life style more rapidly.

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