Burn injuries affect more than 2 million people annually in the United States. As a result of advances in acute medical care for burn injuries within the past 20 years, emphasis has turned toward rehabilitative care. The success of the rehabilitation can be ensured by implementing a coordinated team approach (1).

To understand their particular injury and the potential rehabilitation outcome, burn patients need to be informed and educated about the rehabilitation process. The ultimate success or failure of a treatment regimen, which may extend from one to three or more years, often depends on the ability of the patient, the family, or both, to correctly follow through on procedures or treatments after the patient has been discharged from the hospital. The maintenance of full function, skin integrity, control of hypertrophic scarring, and adequate psychological support depends on a) the patient’s and the family’s understanding of the injury, b) their competence in carrying out planned home exercise programs, c) proper skin care, and d) the prescribed wearing of pressure devices and splints.

This study was undertaken to determine the various types of patient education approaches used by occupational therapists in burn care and to identify therapists’ attitudes toward the provision of this education.

Review of the Literature

Occupational therapy for the burn patient encompasses the general areas of physical recovery, psychological functioning, and social reintegration. Physical recovery may be influenced by occupational therapy innovations for the control of scarring and contractures (2–8). The use of customized splints helps prevent contractures by keeping the burned part in a functional position. It also often helps control scarring through pressure over the healing tissue. Pressure-gradient garments, used with or without molded inserts, may assist in the long-term control of hypertrophic scarring through continuous pressure on the affected areas (3, 7).

Artz and others (1), Feller and others (9), and Pedretti (10) emphasize the use of purposeful activity to encourage the movement of the affected body parts as an essential

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component of physical rehabilitation of the burn patient.

The potential impact of a burn injury on psychosocial functioning is a major consideration in the rehabilitation process. Pain, anger, fear of deformity, and depression are factors that may influence the recovery of the burned adult (7). Therapeutic management techniques, such as patient education, psychotherapy, and reorientation, coupled with the patience and understanding of the therapist, are suggested treatment methods for the emotional reactions of burned adults (11).

With the pediatric patient, effects of preinjury disturbances, pain and the anticipation of pain, feelings of guilt for the injury, changes of body image, and long-term separation from family may directly affect the child's cooperation during hospitalization and his or her eventual recovery (7).

Occupational therapists can facilitate psychosocial adjustment by providing support, promoting patient awareness of the injury, confronting problems, and helping the patient develop coping mechanisms and self-directedness (12).

In a study of 314 burn cases, Davidson and others (13) found a positive correlation between social support and postburn adjustment. Various members of the patient's social network can be trained to provide this support.

Several studies related the effectiveness of patient education to the success of the rehabilitation. For example, Fagerhaugh (14) found that the patient's knowledge of what to expect during the phases of recovery and rehabilitation helped reduce pain by decreasing anxiety. Further, this knowledge was most successfully imparted by another patient who was further along in the rehabilitation process. Another study found that patient participation in the determination of goals and expectations during the rehabilitation process helps the patient maintain self-esteem and comply with treatment regimens (15).

The studies summarized above address the major areas of occupational therapy concern in burn patient treatment. The therapist's integration of these findings into a comprehensive educational approach could provide the burn patient with a better understanding of the treatment and thus improve his or her cooperation and participation in the recovery process.

**Methods**

**Subjects**

A listing of occupational therapy departments located in hospitals with burn units was obtained by a cross-check of the burn treatment facilities in the 1977 Directory of Burn Treatment Facilities and the 1975 American Occupational Therapy Association Facilities Directory and resulted in a sample of 95 such departments.

**Instrument**

A 27-item questionnaire was designed for this study to seek information in the following categories: demographic data, organization of occupational therapy responsibilities, burn unit organization, disciplines involved in burn care, and provision of patient education. This last category included 13 questions that specifically addressed educational materials and procedures, types of information provided, people included, and therapist attitudes toward patient education.

**Procedure**

Questionnaires were mailed to all 95 occupational therapy departments; 86 were returned, 11 of which were completed by physical therapists. Because occupational therapy treatment was the focus of the study, only surveys completed by occupational therapists were included in the analysis; hence the total was 75.

**Results and Discussion**

Respondents did not answer all 27 questions; therefore the sample sizes differ for various questions. Tables 1 and 2 describe the frequency of use of formal patient education programs and of types of educational materials, respectively. The more frequent use of verbal and handwritten instructions may indicate either a preference for informal methods of presentation or a lack of prepared materials for patient education.

Instruction for splint wearing and active exercise was provided...
by all 67 therapists who responded to the question (see Table 3). Over 85% of these respondents also included instructions for a contact person in case of emergency, for proper positioning, passive exercise, skin care, pressure garments, and the next appointment date.

The materials used in patient education may be selected in part by the content of the information provided. For example, instructions for exercise, splint wearing, and skin care can be provided more easily by verbal or written means than by pictorial means.

Sixty-nine of the respondents indicated that patient education lasted throughout hospitalization, and 68 stated that the patient and family were instructed together when possible. Additional persons receiving instruction included any significant other, the school teacher, and representatives from home health agencies or extended care facilities.

Besides occupational therapists, other health care team members (e.g., nurses, physical therapists, and physicians) were most often identified as participants in patient education. Social worker involvement was indicated in 47 of 74 facilities, although social workers were officially involved with the burn team in 70 of these settings.

Respondents identified the involvement of the following team members that were not included as choices on the survey: dietician, psychiatrist, psychologist, recreation therapist, school teacher, Jobst representative, former burn patient, cosmetologist, vocational rehabilitation counselor, and chaplain.

Table 3
Type of Information Provided (N = 67)

<table>
<thead>
<tr>
<th>Type of Information</th>
<th>No. Who Provide It</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper wearing of splints</td>
<td>67 (100%)</td>
</tr>
<tr>
<td>Active exercise program</td>
<td>67 (100%)</td>
</tr>
<tr>
<td>Contact person for emergencies</td>
<td>66 (99%)</td>
</tr>
<tr>
<td>Positioning techniques</td>
<td>62 (93%)</td>
</tr>
<tr>
<td>Mechanism of scarring</td>
<td>61 (91%)</td>
</tr>
<tr>
<td>Wearing of pressure garments</td>
<td>60 (90%)</td>
</tr>
<tr>
<td>Passive exercise program</td>
<td>59 (88%)</td>
</tr>
<tr>
<td>Next appointment date</td>
<td>58 (87%)</td>
</tr>
<tr>
<td>Skin care</td>
<td>58 (87%)</td>
</tr>
<tr>
<td>Emotional aspects</td>
<td>47 (70%)</td>
</tr>
<tr>
<td>Wearing of support stockings</td>
<td>44 (66%)</td>
</tr>
</tbody>
</table>

Table 4 describes therapists' attitudes toward patient education. Factors described as contributing to ineffective programs were inconsistency on the part of staff members, poor organization, poor patient and family receptivity, limited time, unavailability of organized resource materials at various levels of comprehension, lack of variety in materials to accommodate various learning styles, and inconsistent patient follow-up. To improve programs, respondents indicated the addition of more materials at various levels of comprehension, the need for more time for successful implementation of the program, the coordinated involvement of other disciplines, and the availability of well organized written materials. Only 11% of the respondents felt that no changes in their educational programs were indicated.

Implications for Practice

The holistic training and approach of occupational therapists suggests that these professionals are well qualified to present comprehensive educational information to the patient. Occupational therapists are not only concerned with the physical consequences of a burn, they are also acutely aware of the psychological and social components of this type of injury. A comprehensive patient education program would incorporate all of these treatment aspects.

Educational methods are most effective when they are geared to the patient's understanding of the injury, his or her specific needs, problem areas, intelligence, and motivation. Their effectiveness also depends on the presence of support systems (11–13). Individualized programs, although initially more time-consuming, may eventually become more easily established, especially as a variety of materials with various formats and levels of comprehension becomes available. Because family members or other significant individuals often play an important role in the patient's rehabilitation, the learning abilities and preferences of those individuals should also be established.

Frequent family and health team conferences (held occasionally without the patient) could allow the
family members to vent fears, frustrations, and feelings of inadequacy regarding their ability to care for the patient after discharge. These meetings could also be used for family education and the practice of necessary techniques, such as the application of splints, the use of pressure devices or garments, and positioning techniques.

Although this study was limited to burn rehabilitation, many aspects presented can be related to patient education in other areas of practice. Increased occupational therapy involvement in the construction and promotion of patient education materials will help provide a comprehensive rehabilitative approach and will improve the visibility of our profession.

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REFERENCES