Pressure Garment Adherence in Adult Patients With Burn Injuries: An Analysis of Patient and Clinician Perceptions

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Key Words: consumer satisfaction • patient compliance • professional–patient relations

Objective. This study provides a descriptive analysis of the factors affecting pressure garment adherence from the perspective of adult patients with burn injuries and occupational therapy clinicians.

Method. Questionnaires were administered to 23 adult patients with burn injuries and 10 occupational therapy clinicians selected from six provincial hospitals in a large metropolitan area in South Africa. Adherence behavior was evaluated from the perspective of both sample groups in terms of four variables: garment type, garment comfort, garment cosmesis, and garment instructions.

Results. Adherence behavior was negatively influenced by differences in both patient and clinician perceptions across several variables, including the types and consequences of skin problems arising from pressure garment use, levels of satisfaction with garment construction and color, and the issuing and understanding of garment instructions. Other factors compromising adherence behavior included the negative effects of visible burn disfigurement, the issuing of pressure garments after hypertrophic scarring had developed, a lack of patient choice in the selection of scar management techniques, and a lack of social support in the wearing of pressure garments.

Conclusion. Much of what is traditionally understood as “patient nonadherence” appeared to be largely because of rational choices made by patients in the face of several difficulties they experienced with the current form and nature of their pressure garment therapy. On the basis of these findings, a range of patient-centered interventions are indicated to enhance treatment efficacy and consumer satisfaction with this treatment regimen, including horizontal rather than vertical therapist–patient communication, closer interaction among members of the health care team, the facilitation of family and social support, and interactive health education interventions.


Burn care providers have used pressure garments since the early 1970s (Staley & Richard, 1997) and generally accept them as the best noninvasive means for preventing and controlling the formation of hypertrophic scars after burn injury (Gallagher et al., 1992; Ward, 1991). Although the exact mechanism of action is unknown, the pressure exerted by the garments appears to clinically enhance the scar maturation process (Carr-Collins, 1992). For example, reports on the results of pressure garment therapy, administered to 34 patients with burn injuries over a 4-year period, revealed a 50% reduction in hypertrophic scar formation in 62% of the cases (Haq & Haq, 1990). However, although it has been demonstrated that pressure garments, when correctly used, are a highly successful form of therapy for reducing keloid formation (Leveridge,
studies (Garb & Stunkard, 1974; Robertson et al., 1988). They receive. However, patients' perceptions, as well as their this form of treatment (Johnson, Greenspan, Gorga, Nagler, & Goodwin, 1994). 

The extent to which individual behavior coincides with medical or health advice (i.e., treatment adherence) is increasingly being recognized as a major consideration in the daily management of patients in a variety of health care settings (Michael, Belcon, Haynes, & Tugwell, 1984) and in the attainment of therapeutic goals (Cameron, 1996). Although well recognized, “patient nonadherence” is a poorly understood phenomenon (Trick, 1993) and has been identified as a major public health problem (Donovan, 1995). For example, adherence with prescribed medications varied from 78% in recently discharged patients (Donabedian & Rosenfeld, 1963) to 32% in patients receiving long-term drug therapy (Loiseau & Marchal, 1988), with an even lower (8%-15%) adherence rate being reported in lifestyle modification intervention studies (Garb & Stunkard, 1974; Robertson et al., 1988). More specifically, studies on adherence behavior with occupational therapy regimens report an overall pattern of 25% to 35% adherence to splint usage (Agnew & Maas, 1995; Moon, Moon, & Black, 1976), 41% adherence to pressure garment therapy (Johnson et al., 1994), and 71% adherence to scheduled outpatient appointments (Kolton & Piccolo, 1988).

Given the relatively low magnitude of adherence behavior reported in therapeutic settings, it is not surprising that research into treatment nonadherence has increased over the past 3 decades, with a great deal of investigation being focused on the measurement, extent, determinants, resolution, and theories of nonadherent behavior (Ajzen & Fishbein, 1980; Bandura, 1986; Becker, 1974; Becker & Maiman, 1980; Cameron, 1996; Holm, 1993; Loiseau & Marchal, 1988; Morris & Schulz, 1992; Trick, 1993; Wallston, Wallston, & DeVellis, 1978).

It is important to note, however, that research into treatment nonadherence has historically been dominated by the perspective of the health professional, with little attention given to the patient’s point of view or decision-making processes (Morris & Schulz, 1992). An inherent tendency exists to “blame” the patient and to view nonadherent behavior as irrational and deviant (Playle & Keeley, 1998). This professional view of nonadherence as irrational denies the legitimacy of patients’ choices, negates their roles in medical decision making (Donovan, 1995), and reinforces the maintenance of professional power and control (Playle & Keeley, 1998). Traditionally, therefore, treatment adherence means that patients must do what the health professional wants (Merrill, 1994) and that they have little option but to comply with the advice and instructions that they receive. However, patients’ perceptions, as well as their personal and social living circumstances, have been shown to be crucial to their decision making (Donovan & Blake, 1992). Thus, an apparently irrational act (from the health professional’s perspective) may be a rational act when considered from the patient’s point of view.

On the basis of research conducted in health care settings, ineffective communication between patients and health care providers appears to be a major determinant of negative health outcomes, including treatment nonadherence (Levinson & Chaumeton, 1999; Martin & Barkan, 1989; Ong, De Haes, Hoos, & Lammes, 1995; Rangan & Ogden, 1997). According to this body of research, the personal backgrounds of health care providers and the norms, beliefs, and practices intrinsic to their professional training, affect their communication and interaction with patients and, ultimately affect the treatment they provide (Bates, Rankin-Hill, & Sanchez-Ayendez, 1997). Indeed, differences in world views on health and illness between health care providers and patients are often cited as decreased treatment adherence in patients and health care provider frustration (Van der Geest, 1997). Establishing supportive patient–practitioner relationships aimed at empowering patients to assume active roles in their health care (Berkman, 1995) and developing a sense of control over their health outcomes (Sobel, 1995) may be important in enhancing the congruence between health care provider expectations and patient behavior (Cameron, 1996). In particular, it is argued that the extent to which health care providers are able to identify the specific needs of their patients for information, support, and reinforcement (Hill, 1989) is directly related to the level of consumer satisfaction with health care (Vojnovic, Martinov-Cvejin, & Grujic, 1997) and to the future trajectory of their health outcomes (Mechanic, 1992).

Although studies have reviewed the specific determinants of adherence behavior, including the medical treatment and splint usage examples previously discussed, little research exists with regard to the factors influencing patient adherence to the use of pressure garments (Gallagher et al., 1992; Johnson et al., 1994; Kealey, Jensen, Laubenthal, & Lewis, 1990; McLean & Warren, 1983). In particular, an understanding of the reasons for nonadherence from the perspective of patients with burn injuries would enhance health professionals’ understandings of patients’ medical decision-making processes.

Accordingly, this study aims to investigate the factors affecting pressure garment adherence behavior in adult patients with burn injuries from the perspective of (a) those patients currently receiving pressure garment therapy in selected provincial hospitals in a large metropolitan complex, and (b) occupational therapy clinicians providing therapy, to these patients within these selected hospitals. A comparative discussion of the perceptions of these two key groups identifies those factors that are perceived to reduce patient adherence to pressure garment therapy and extrap-
lates intervention strategies that occupational therapists may use to enhance patient satisfaction and adherence.

Method

Sample

Six provincial hospitals in the Durban Metropolitan area, a large metropolitan complex on the east coast of South Africa, comprised the sample. Although occupational therapy heads of department at all nine hospitals in this area were contacted, three hospitals were excluded from the study because they did not manufacture pressure garments for their patients with burn injuries. From the six remaining hospitals, two sample groups were selected to participate in this study, namely, occupational therapy clinicians and adult patients with burn injuries.

Occupational therapy clinicians. A purposive sampling procedure was used to obtain a sample of all occupational therapy clinicians with at least 1 year of clinical experience in the physical disabilities area and who were primarily responsible for the treatment of patients with burn injuries. These clinicians were specifically selected because they could provide useful information regarding the design, construction, and cosmesis of pressure garments and the instructions issued for their use. The sample was made up of 10 female clinicians drawn from all six hospitals. Their ages ranged from 22 years to 58 years (M = 32 years), and their years of clinical experience in physical disabilities ranged from 2.5 to 25 (M = 7.5 years).

Adult patients with burn injuries. A saturation sampling procedure was used to target all adult patients with burn injuries who were currently receiving pressure garment therapy at the six hospitals (N = 26). Although all of these patients agreed to participate in the study, 3 were excluded because of their involvement in the pilot phase of this study. The sample was made up of 23 adult patients with burn injuries (14 men, 9 women) drawn from all six hospitals. Their ages ranged from 18 years to 52 years (M = 33.5 years). All were outpatients in the recovery phase of treatment, with a mean treatment duration of 8.3 months.

Six (26%) patients were unemployed, 7 (31%) were students, and 10 (43%) were employed. With regard to those who were employed, 2 occupied semiskilled positions; 3 occupied skilled positions; and 5 occupied unskilled positions. Thirteen (57%) had sustained burns to the arms, 12 (52%) to the torso, and 8 (35%) to the hands. A smaller percentage had sustained burns to the face (26%) and legs (9%).

Instruments

Two self administered questionnaires (one for each sample group) were designed to obtain specific information and views on the factors affecting pressure garment adherence in adult patients with burn injuries because no relevant questionnaire was readily available in the literature. The content and design of both questionnaires were informed by pertinent empirical research and theory on adherence behavior.

Content validity of the questionnaires was assured through an appraisal conducted by two identified experts in the fields of research methodology and pressure garment therapy. Questionnaire 1 was subsequently piloted with two occupational therapy clinicians who were not part of the sample group, whereas Questionnaire 2 was piloted with a random sample of three patients who were currently receiving pressure garment therapy and who were subsequently excluded from the study. Relevant adjustments to the instruments were made before initiating fieldwork.

A combination of open-ended and closed-ended questions comprised the instruments. They were organized across four identified response categories: garment type, garment comfort, garment cosmesis, and garment instructions. By ensuring that the response categories were constant in both questionnaires, comparisons between the two sample groups were made possible. A cover letter briefly outlining the purpose of the study and assuring the research participants of confidentiality accompanied each questionnaire.

Procedure

Informed consent was obtained from all persons participating in the study. Questionnaire 1 was hand delivered to all the clinicians, and a 1-week response time was negotiated. The researchers collected all completed questionnaires within this time frame. Fieldwork for Questionnaire 2 was conducted over a period of 2 months. In each hospital, the questionnaire was self-administered by all adult patients with burn injuries who satisfied the predetermined requirements.

Data Analysis

It is important to note that the small sample sizes and resultant small cell sizes precluded the use of inferential statistics. Closed-ended questions were thus analyzed with descriptive statistics (i.e., frequency counts, percentage matrices), whereas open-ended questions were analyzed with content analysis. Only the most salient results yielded from these analyses are presented across the four identified variables.

Results

Garment Type

An analysis of the types of pressure garments worn by adult patients with burn injuries in this study revealed that the majority wore arm pieces (57%), vests (52%), and gloves (44%). A smaller percentage wore face masks (26%) and leg pieces (9%). All reported that two sets of the relevant garments had been issued to them. However, a large percentage of patients (78%) as well as clinicians (60%) indi-
icated that these garments were issued after hypertrophic scarring had developed. According to the clinicians, this late issuing of pressure garments was because of the late referral of patients by their physicians for pressure therapy (40%), prolonged wound healing that delayed pressure garment construction (20%), mechanical problems with the departmental sewing machine (10%), and late arrival of pressure garment material from the supplier due to bureaucratic hospital administrative procedures (10%).

A broad range of scar management options was available and used in the six hospitals, particularly pressure garments (100%), Hypafix (100%), Tubigrip (80%), and Cica Care (70%). However, very few patients indicated an awareness of scar management options other than pressure garments, and none reported being afforded the opportunity to select a preferred technique of scar management control. In this regard, 60% of clinicians believed that the responsibility for selecting the most suitable scar management technique should be vested solely in the health professional; 30% believed that the poor socioeconomic status of patients precluded the use of more expensive scar management techniques; and a further 20% believed that the low educational level of patients precluded them from understanding which scar management option was most appropriate for them.

**Garment Comfort**

As illustrated in Table 1, the ranking of common skin problems experienced by the sample patients as a result of wearing their pressure garments revealed discrepancies between the responses of the sample groups in this study. Although skin itchiness ranked high with both patients (100%) and clinicians (80%), patient reports of factors such as skin rash (39%), skin necrosis (39%), skin tenderness (30%), and skin blisters (26%) were not viewed as major problems by 90% of the clinicians. Further, although 30% of the clinicians perceived limb swelling to be a major problem, 96% of the patients indicated that this was not the case.

Furthermore, although both sample groups indicated that the garments were uncomfortably hot to wear (79% of patients, 70% of clinicians), patient reports of excessive friction between the garment and their skin (52%) was perceived to be a major problem by only 10% of the clinicians (see Table 2). Although none of the clinicians were of the view that the garments were poorly constructed, 44% of the patients were uncertain about whether this was the case. It was also noted that a large percentage of both sample groups were uncertain about whether the garments were effectively reducing hypertrophic scarring (40% of clinicians, 39% of patients).

With regard to garment wearing schedules, the majority of patients (91%) reported receiving instructions to wear their garments for 20 hr to 24 hr per day. Although 70% of the patients indicated that they adhered to this schedule, 30% reported daily wearing schedules of no more than 10 hr to 14 hr.

**Garment Cosmesis**

Although the majority of the clinicians reported an availability of tan-colored (90%) and dark brown-colored (50%) pressure garment material in their department, the majority of the patients (91%) reported being issued only tan-colored garments, and none reported being afforded a choice in selecting the color of garments. According to the clinicians, the reasons for disallowing this choice included the perception that adult patients with burn injuries are unconcerned with the color of their pressure garments (50%), the limited availability of pressure garment material in their department (50%), and the lack of choice accruing from the specific type of material that is required at certain phases of burn healing (20%). It is important to note that although 50% of the clinicians believed that adult patients with burn injuries were unconcerned with the color of their pressure garments, a large percentage of patients (48%) reported personal dissatisfaction with their garment color.

Further, although a large percentage of both patients (52%) and clinicians (50%) were of the view that pressure garments were conspicuous and made the wearer feel self-conscious, primarily patients with burns to the face (58%) and hands (33%) endorsed this view. An important finding was that 35% of all patients reported a lack of encouragement from their families to wear their pressure garments.

**Garment Instructions**

An analysis of the nature and content of garment instructions issued to adult patients with burn injuries revealed further discrepancies between the responses of the two sample groups. Although the clinicians reported issuing their patients verbal (100%) and written (60%) instructions, only 52% of the patients reported receiving verbal instructions, and 22% reported receiving written instructions. Further, although 90% of the clinicians were of the view that their patients understood these instructions, a large percentage of the patients (44%) reported otherwise.

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Table 1

<table>
<thead>
<tr>
<th>Skin Problem</th>
<th>Clinicians (%)</th>
<th>Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin itchiness</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Limb swelling</td>
<td>30</td>
<td>4</td>
</tr>
<tr>
<td>Skin tenderness</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Skin necrosis</td>
<td>10</td>
<td>39</td>
</tr>
<tr>
<td>Skin blisters</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>Skin rash</td>
<td>10</td>
<td>39</td>
</tr>
</tbody>
</table>

Note: n = 10 for clinicians; n = 23 for patients.

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1Smith and Nephew, Ltd., 30 Gilliks Road, Pinetown, 3610, South Africa.
The majority of the clinicians indicated that a broad spectrum of garment instructions was issued to their adult patients with burn injuries (see Table 3). However, very few patients in this study indicated that they received instructions pertaining to dressing and undressing methods (9%), reasons for the development of hypertrophic scarring (13%), consequences of nonadherence to wearing their pressure garments (26%), and skin problems possibly resulting from wearing the garments (35%). Further, although 60% of the clinicians reported that their adult patients with burn injuries defaulted in attending their follow-up appointments, only a minority of patients (13%) reported that they were informed of the importance of attending these appointments, and only 26% indicated that they were provided with the name of a contact person should they experience any garment difficulties.

Discussion

Garment Type

A substantial percentage of patients in this study had sustained visible burn disfigurement, namely burns to the hands (44%) and face (26%), and, consequently, wore pressure garments in the form of gloves and face masks. Research has demonstrated that the negative perceptions and feelings that accrue from visible burn disfigurement (Franks & Goodrick-Meech, 1997; Hinton, 1993; Thompson et al., 1992) often manifest in the injured person as decreased acceptance of body image changes, social rejection, and low self-esteem (Bull & Houston, 1994) and serve as major obstacles to adherence behavior (Pfister-Minogue, 1993). Furthermore, these negative perceptions and feelings are exacerbated by the wearing of pressure garments that are conspicuous and cannot be readily concealed beneath clothing, such as face masks and gloves (Thompson et al., 1992). Patients in this study with burns to the face and hands may have experienced similar psychological sequelae, possibly compromising their adherence. This situation might be exacerbated by varying levels of social stigma (Bernstein, 1985; Bull & Houston, 1994) and the wearing of those pressure garments that enhance attention to the burned areas of the body.

The research reviewed illustrates the need for sociopsychological support and counseling in assisting patients with burn injuries, particularly those with visible burn disfigurement, to adapt emotionally and psychologically to the consequences of their trauma (Franks & Goodrick-Meech, 1997). In this way, concerns and anxieties with regard to the wearing of pressure garments could be allayed, and occupational therapy clinicians could anticipate critical moments in the process of treatment adherence and assist their patients to overcome them (Vojnovic et al., 1997; Webber, 1990).

Given that the successful management and prevention of hypertrophic scarring depends on early and aggressive treatment (Carr-Collins, 1992), the late initiation of pressure garment therapy for the majority of patients in this study could result in severe consequences with regard to keloid formation and, consequently, undermine patient beliefs in the efficacy of this treatment regimen. This argument is in keeping with Schwarzer’s (1994) view that patient outcomes and efficacy beliefs with regard to prescribed health regimens form the major determinants of their treatment adherence. Thus, the patients in the present study who were provided with pressure garments after hypertrophic scarring had occurred would arguably have negative action–outcome expectancies, thereby reinforcing nonadherence with treatment in the long term. That is, they would be less motivated to engage in health-related behaviors (adherence with pressure garment usage) when these behaviors were not seen to lead to valued outcomes (a reduction in hypertrophic scar formation).

The findings clearly highlight the urgent need for occu-
Occupational therapy clinicians to address those factors that affect the late initiation of pressure garment therapy. Although certain factors were arguably beyond the scope of control of the clinicians in this study, other factors such as the late arrival of pressure garment material due to bureaucratic hospital administrative procedures, nonfunctional sewing equipment, and the late referral of patients by physicians for pressure therapy can clearly be addressed. In particular, establishing more open and cooperative relationships among members of the health care team may prove to be critical in the long-term therapeutic success of pressure garment therapy.

An important finding was that the patients in this study appeared to have been afforded relatively limited participation in decision making about their own health care, particularly with regard to selecting a preferred technique of scar management control. Although the selection of the most appropriate scar control medium is indeed influenced by a host of clinical factors, including the size, location, and depth of the burn injury (Malick & Carr, 1982); the scar's ability to tolerate shear and pressure; and the availability of various products (Leveridge, 1991), it is difficult to accept the view advanced by the majority of the clinicians in this study that the responsibility for treatment decisions should fall solely with the health professional. In fact, it is consistently reported that encouraging patients to assume active roles in their health care and incorporating their preferences into medical decision-making processes can enhance adherence and consumer satisfaction (Cameron, 1996; Carr-Collins, 1992; Donovan, 1995; Playle & Keeley, 1998; Speedling & Rose, 1985). This is in keeping with the basic tenets of health locus of control theory (Wallston et al., 1978) in that patients with burn injuries who perceive their health as largely within their own control may be more likely to engage in health-maintaining behaviors, whereas those who view their health as relatively independent of their behavior and under the control of others may be more likely to engage in health-damaging behaviors.

These findings suggest the need for occupational therapy clinicians to take clinically appropriate steps to “tailor” pressure therapy regimens to suit their patients’ specific needs and preferences (Bond & Hussar, 1991) rather than unilaterally selecting pressure garments as the primary mode of intervention in the management of hypertrophic scars. A reconceptualization of the professional norms and expectations underlying occupational therapy clinicians’ beliefs regarding the appropriate roles of patients and professionals is needed. By gaining an understanding of the patients’ perceptions of their conditions and by promoting their sense of control, occupational therapy clinicians can help patients to make their own reasoned decisions regarding scar management options and can then establish mutually agreed-upon treatment goals that are consistent with the patients’ beliefs, priorities, and life circumstances (Donovan, 1995; Wilson, 1995).

Garment Comfort

The discrepancies noted between the responses of adult patients with burn injuries and occupational therapy clinicians with regard to skin problems resulting from pressure garment use seem to suggest poor therapist–patient communication throughout the therapeutic process. Patients have not volunteered relevant information, and occupational therapy clinicians do not appear to have dealt adequately with issues in follow-up appointments and are consequently not fully aware of important side-effects that might negatively affect adherence to garment wearing schedules. This is of concern in that early recognition of and intervention to combat secondary complications, such as skin rash, excessive sweating, and skin itchiness, might enable occupational therapy clinicians to enhance consumer satisfaction with pressure garment therapy and maximize treatment efficacy (Bond & Hussar, 1991).

Further, the clinicians in this study were largely unaware of patient experiences of excessive skin friction caused by the garments and, in contrast to the patients’ perceptions, not a single clinician believed that the garments were poorly constructed. Empirical evidence confirms that patients are unlikely to wear pressure garments that do not fit well (Gallagher et al., 1992). Thus, the clinicians’ apparent lack of attention to the effects of poor garment construction and fit militates against their implementation of simple interventions to improve garment comfort, namely the use of a protective lining between the garment and the skin and care in ensuring that all garments are professionally constructed.

Although the majority of patients in this study received garment wearing instructions of 20 hr to 24 hr per day, almost one third reported daily wearing schedules of no more that 10 hr to 14 hr. Given that a constant wearing schedule has a greater effect on scar control than intermittent wearing (Nicholas, Gruen, Weiner, Crawshaw, & Taylor, 1982; Thompson et al., 1992), it is possible that patients with burn injuries who deviated from their prescribed wearing schedule could experience less than optimal reduction in their hypertrophic scar formation.

In summary, it would appear that poor therapist–patient communication has compromised clinician awareness of important garment comfort factors that might affect patient willingness to wear pressure garments for optimum benefit. Thus, much of the variance in patient garment wearing behaviors, commonly understood as “patient nonadherence,” might actually reflect rational choices made by patients to not engage in behaviors that produce discomfort and negative outcomes.

A majority of patients appeared to question the ability of their pressure garments to greatly decrease their hypertrophic scars. According to the Health Belief Model (Becker, 1974), patient willingness to engage in a particular health-promoting behavior is determined, in part, by individual percep-
tions of the effectiveness of that behavior in producing positive health outcomes. Thus, a lack of attention by occupational therapy clinicians to garment comfort factors and related negative consequences could understandably exacerbate negative outcome expectancies for patients and contribute significantly to their apparent nonadherent behavior.

Garment Cosmesis

An important finding was that none of the patients in this study was afforded a choice in selecting the color of their pressure garments, and almost half were dissatisfied with their garment color. This finding is of concern in that research conducted on the psychology of color suggests that negative feelings toward the color of garments can serve as reinforcers of unattractiveness, leading to lowered self-esteem and social acceptance (Farraj & Baron, 1991; Molloy, 1975; Thompson et al., 1992). By offering adult patients with burn injuries a choice in color of their pressure garments, occupational therapy clinicians can help their patients to have positive attitudes about their appearance, which can serve as positive reinforcement for adherence to wearing the garments. This recommendation is particularly crucial given that half of both patients and clinicians were of the view that pressure garments were conspicuous and made the wearer feel self-conscious.

More than one third of the patients in this study reported a lack of social support in wearing their pressure garments. Research findings suggest that positive social support is very effective in enhancing adherence behaviors, with patients who are adherent being more likely to report at least one family member supporting them in adhering to recommended treatment regimens (Barnhoorn & Adriaanse, 1992; Liefooghe, Michaels, Habib, Moran, & De Muynck, 1995; Oakes, Ward, Gray, Klanber, & Moody, 1970). In the context of social learning theory (Ajzen & Fishbein, 1980), a notable difference in health-promoting behavior can be anticipated when the expectations of “salient others” for the affected person to engage in that behavior are high as opposed to when such expectations are lacking. Thus, it is important that occupational therapy clinicians consider as part of the total treatment process how their adult patients with burn injuries perceive family expectations of pressure garment therapy and what the perceptions of family members are about pressure garment therapy. Appropriate educational programs offer an important means for mobilizing existing social support networks (Cameron, 1996) and encouraging family members to express positive expectations regarding pressure garment use.

Garment Instructions

Despite clinicians’ reports that they provided their adult patients with burn injuries with a broad spectrum of garment instructions, the majority of patients in this study reported receiving insufficient information. This discrepancy is of concern in that patients make their own reasoned decisions regarding adherence to treatment regimens on the basis of their personal beliefs, circumstances, and the information available to them (Donovan, 1995). Although this concern suggests that occupational therapy clinicians need to engage in more comprehensive patient education programs with regard to the use of pressure garments as a method of scar control (Nicholas et al., 1982), it is important to remain mindful that patient education often consists of one-way communication from the health care provider to the patient (Wilson, 1995). Indeed, patient education has become an increasingly important area of research over the past 3 decades (Webber, 1990), with many researchers arguing that patient education has been used to serve the needs of health care professionals rather than to empower patients (Donovan & Blake, 1992; Van den Borne, 1998). Thus, it is important that occupational therapy clinicians reflect critically on the notion of patient education and strive to develop interactive patient education programs aimed at identifying the specific information needs of their patients with burn injuries (Hill, 1989) and enlisting family support to promote positive health behaviors and outcomes.

By examining the nature of their relationship with their adult patients with burn injuries and by fostering interactive therapist–patient relationships, occupational therapy clinicians may offer patients more active roles in their health care. This approach enhances the prospect of developing health strategies that build on the expertise of the professional while appreciating the patients’ health beliefs, perceptions, expectations, and values, thereby producing health outcomes that are mutually positive and satisfying. This approach, however, requires a consistent, concerned, non-judgmental, and interactive relationship with patients with burn injuries and their families (Pfister-Minogue, 1993).

Limitations

The sample size of the adult patients with burn injuries and occupational therapy clinicians in this study was small, thereby precluding inferential analysis and limiting the generalizability of the findings. Further, given more resources for this study, it would have been useful to complement the quantitative data with a qualitative feedback loop, where findings could have been clarified and explored through focus groups and interviews with both sample groups. The findings of this study nevertheless represent a realistic representation of the perceptions of the participating patients and clinicians and, thus, have particular relevance for appropriate professional practice and positive health outcomes for patients.

Directions for Future Research

This study has elucidated a range of clinician and patient variables that affect the adherence behavior of a sample of adult patients with burn injuries receiving pressure garment
therapy. However, there remains a need for further larger scale empirical studies to enhance the validity and generalizability of the findings. Additionally, although patient education programs are important in enhancing treatment adherence, the extent to which such programs influence actual health behaviors needs to be evaluated. Further, central to our understanding of patient adherence in this study was a consideration of the nature of the therapist–patient relationship; studies aimed at gaining an in-depth understanding of the nature of the therapist–patient relationship could thus identify barriers and supports inherent in this relationship that affect both adherence to pressure garment therapy and overall health care outcomes for patients with burn injuries.

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References
Archives of Physical Medical and Rehabilitation, 63, 92–94.


