Quality of life and psychosocial adjustment to burn injury: Social functioning, body image, and health policy perspectives

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Abstract
This paper reviews four major topics related to the long-term psychosocial rehabilitation for burn survivors; (1) Body image adjustment process; (2) Social functioning challenges; (3) Interventions designed to address psychosocial rehabilitation challenges; and (4) Current policy developments in the USA and the UK that focus on raising the rehabilitation standards for psychosocial care for burn survivors. While acknowledging the close relationship between body image distress and social functioning, these two areas are reviewed separately with the goal of addressing two specific questions. First, what does current empirical research and clinical experience teach us about each of these areas, and second, what are the most important gaps in current knowledge about body image and social functioning, respectively? The final section of the paper specifically addresses the question of what can be done, from a practical and a health policy perspective, to ensure that existing body image and social difficulties are appropriately addressed.

Body image and adjustment to burn injuries
In this section we focus on body image and appearance-related issues (e.g., distress regarding scarring) that may be experienced by burn survivors. Body image is a major psychological variable influencing long-term quality of life in a range of medical populations (Pruzinsky, 2004). There has been a substantial amount of recent empirical documentation of the role of body image in the short-term (Fauerbach et al., 2000) and long-term adjustment in adult (e.g., Thombs et al., 2008) as well as child burn survivors (e.g., Lawrence, Rosenberg, & Fauerbach, 2007). Progress in understanding and documenting body image issues has resulted from advances in the psychometric evaluation of body image variables related to burn injury, including use of the Satisfaction with Appearance Scale (Lawrence et al., 1998) as well as improvements in knowledge concerning body image and its evaluation more generally (Cash, 2005).

The brief review provided here is intended to be representative (i.e., not comprehensive or exhaustive) of studies highlighting the role of body image in burn survivors, primarily focusing on the adjustment of adults. Development of our understanding and assessment of child and adolescent body image is lagging behind that of the adult population in general (Pruzinsky & Cash, 2002) and for burn survivors in particular. While there has been some progress made in understanding body image functioning in child and adolescent burn survivors (Abdullah et al., 1994; Jesse, Strickland, Leeper & Wales, 1992; Lawrence, Fauerbach, Heinberg & Doctor 2004; Lawrence et al., 2007; Orr, Reznakoff & Smith, 1989; Robert et al., 1999), there is still a great deal of progress that needs to be made in this area. For a comprehensive overview of the long-term psychosocial adjustment of child and adolescent burn survivors please see the excellent review provided by Rose and Blakeney (2005).

It is empirically well-documented and clinically evident that many variables influence an individual’s adaptation to disfigurement after burn injury. For example, evidence suggests that a burn survivor who places greater value on appearance is more likely to have negative adjustment outcomes related to residual scarring and other changes in appearance than a burn survivor who does not place so much importance on one’s appearance (Lawrence, Fauerbach & Thoms, 2006a). Additionally, there is a significant risk that post-burn body image dissatisfaction will have negative effects on quality of life and that these effects are evident early in the
adjustment period (Fauerbach et al., 2000). Fauerbach and colleagues (2002) documented that higher levels of body image distress during the two-month period post-hospital discharge was associated with the use of one or two emotion-focused coping methods (i.e., suppression/mental disengagement and/or emotional venting).

In a study focusing on the long-term adjustment (average time since burn injury = 7.3 years) of 224 burn survivors seeking reconstructive surgery, Thombs and colleagues (2007) evaluated levels of depression, body image and physical function. These investigators found that almost half (46%) of this patient group reported ‘at least mild symptoms of depression’ and that body image dissatisfaction was the single most important predictor of depression. This finding is important because there are few studies that have looked at the long-term functioning of this population. Interestingly, the presence of depression was not associated with the presence of a facial injury, with the size of the burn, or the patient’s age – all of which have been considered potentially influential variables in previous research. This study underscores the uniquely powerful effect of body image dissatisfaction on the quality of life of burn survivors independently of the size and location of the burn. The study also highlights the long-term nature of the body image rehabilitation process for affected people.

A recent longitudinal study of 79 individuals with a severe burn injury evaluated patients at three different time points (during hospitalization and at 6 and 12 months after being discharged from hospital) utilizing the Satisfaction with Appearance Scale (Lawrence et al., 1998), a subscale of the Multidimensional Body-Self Relations Questionnaire, which evaluates body image investment/importance, and the SF-36, which assesses health-related quality of life across several domains (Thombs et al., 2008). The study found that being female, having a larger burn and placing a great importance on physical appearance were all predictors of higher levels of body image dissatisfaction. Importantly, the level of body image dissatisfaction at one year from hospital discharge was the single most important predictor of overall psychological adjustment at that time. This study is noteworthy because it focuses on the changes over time experienced by a group of survivors following a severe injury. The degree of body image distress increased over time for women and for those individuals with larger burn injuries.

In summary, there has been excellent progress made in our overall understanding of body image in burn survivors. In particular, we have learned that the degree to which one places value on one’s physical appearance, the more likely that individual will have more difficulty adjusting to their injury (Lawrence et al., 2006a). Additionally, we have learned that body image is the single most important predictor of long-term psychosocial functioning (Thombs et al., 2008) and that body image concerns are often evident early on in the adjustment process (Fauerbach et al., 2000). Furthermore, body image adjustment may not be related to the size or specific location of the burn injury (Thombs et al., 2007).

Future research focusing on the collection of quantitative data could usefully incorporate some of the more recent body image measures that evaluate body image quality of life (e.g., Cash & Fleming, 2002; Cash et al., 2004), the experience of body image across a range of specific situations (Cash, 2002) as well the evaluation of appearance investment via body image schemas (Cash, Melnyk, & Hrabosky, 2004). Additionally, it would also be helpful to have a better understanding of body image and sexual functioning (e.g., via use of The Body Exposure during Sexual Activities Questionnaire (BESAQ), Cash et al., 2004). The potential of mixed methods research designs involving qualitative as well as quantitative data to enhance our understanding of the diversity in individual experience should also be recognized.

Social functioning and adjustment to burn injuries

Prominent challenges inherent in long-term psychosocial rehabilitation following a major trauma such as a burn injury are those associated with optimizing social functioning and adjustment. Social challenges may include difficulty coping with the behaviour of others or with one’s own behaviour in social situations and may involve social inhibition and suboptimal social skills. Among burn survivors, factors such as social involvement and perceived social support account for a substantial amount of variance in psychosocial adjustment (Browne et al., 1985; Davidson, Bowden, Tholen, James, & Feller, 1981; Kapp-Simon, Simon, & Kristovich, 1992) and mental health-related aspects of quality of life (Anzarut, Chen, Shankowsky, & Tredget, 2004); severity of the burn injury and time since injury are not as strongly predictive of these outcomes (Browne et al., 1985).

Social challenges facing burn survivors

Difficulty and anxiety in social situations are among the most frequent issues reported by people with disfiguring conditions. Many adults suffering from burn injury experience at least temporary difficulties in social or occupational engagement (Tudahl, Blades, & Munster, 1987; Bernstein, 1990;
In order to overcome social challenges, burn survivors often must learn to employ proactive social strategies, including increased solicitation of peer support, social risk-taking, overcoming shyness, educating others about their injury, remaining calm, and assertively confronting negative reactions (Partridge, 1994). They must also learn to interpret information from their social world in more adaptive ways. Recently, psychometrically sound measures of social stigmatization and social comfort, including the Perceived Stigmatization Questionnaire (PSQ) and the Social Comfort Questionnaire (SCQ), have been published specifically for use in patients with disfiguring conditions (Lawrence, Fauerbach, Heinberg, & Doctor, 2006b). Research in people with a range of disfiguring conditions highlights the multivariate nature of adjustment to disfigurement and the role of appearance-specific cognitions in influencing levels of distress (for a review see Rumsey & Harcourt, 2005), which supports the view that many components of adjustment are amenable to psychological intervention.

Psychosocial interventions

According to a systematic review conducted in 2007, there is insufficient evidence to support the effectiveness of psychosocial interventions for adults with a disfiguring condition that results in an altered appearance (Bessell & Moss, 2007). There were major methodological weaknesses noted across the twelve reviewed studies, including small sample sizes, insufficient reporting of results, and the absence of a control group. Furthermore, small intervention effect sizes were reported and heterogeneity in the literature (i.e., therapeutic paradigms, varying number of sessions) made direct comparisons difficult. Similar conclusions were drawn from a parallel systematic review of interventions for 5 to 18 year olds which identified nine studies for full scrutiny (Jenkinson et al., in preparation). Notwithstanding the methodological limitations of the studies reviewed, both papers noted promising indications of the effectiveness of interventions based on cognitive behavioural therapy and/or social skills training.

Blakeney and colleagues (2005) conducted one of the few prospective randomized studies to evaluate the efficacy of an intensive social skills training programme for burn survivors. The intensive intervention was developed by Changing Faces, a non-profit organization in the United Kingdom, and administered over a four-day period to adolescents with elevated behavioural problems or diminished total competence. The control group received usual treatment, which included psychological or psychiatric attention only if requested. None of

Rosenberg et al., 2006; Blakeney et al., 2005; Balakrishnan, Hashim & Gao, 1999; Partridge, 1990; Robinson, Rumsey, & Partridge, 1996) and as many as half of survivors experience chronic and pervasive social strain (Blakeney, Partridge, & Rumsey, 2007; Taal & Faber, 1998). Although the majority of children do not experience external observable difficulties after a major burn injury, up to 30% experience clinically significant behavioural and social problems (Blakeney et al., 1998, 2001; Meyer, Blakeney, LeDoux, & Herndon, 1995). Discrepancies between parent, child, and teacher reports of social competence have been found (Blakeney et al., 1998; Blakeney et al., 1993), with children generally rating their competence within normal limits compared to reference groups (Landolt, Grubenmann & Meuli, 2002; Blakeney et al., 1993) and parents and teachers endorsing elevated frequency of problems (Blakeney et al., 1998; Meyer et al., 1995). These discrepancies may be attributed to children’s denial of distress or parents’ misperceptions of or sensitivity to children’s problem behaviours and belief that they are in need of additional care (Blakeney et al., 1993; Meyer et al., 1995).

It is evident that although the severity and prevalence of social difficulties may vary across age groups and respondents, a substantial portion of burn survivors experience distressing and persistent social challenges.

Burn survivors face the daunting task of navigating the social landscape and coping with the numerous social ramifications of burn injury. Disfigured people encounter observable social barriers, such as discrimination in the form of verbal abuse, pity, staring, unsolicited questioning about appearance, and name-calling (for a review see Thompson & Kent, 2001). These social reactions can be perceived as stigmatizing and lead to further social discomfort. Avoidant responses to negative reactions from others, such as escaping stressful encounters, can contribute to the development of heightened anxiety and distress (Kent, 2000; Fauerbach et al., 2002; Root et al., 1994). Avoidant coping may also maintain phobic anxiety specific to social situations, which is experienced by some individuals who are facially disfigured (Newell & Marks, 2000).

Ultimately, disfigurement may contribute to increased self-consciousness, social anxiety, and anticipation of rejection, and contribute to behaviours of shyness and apprehension (Kapp-Simon et al., 1997; Rumsey, Bull, & Gallahan, 1986). Together, these can lead to poor social skills, a tendency to attribute negative social events to the disfigurement (McArthur, 1982; Robinson, 1997), and a cycle of social dysfunction that, for some, can significantly impair functioning and life satisfaction.
the members of the control group reported receiving additional psychological or pharmacological intervention. The average burn size across groups was approximately 37% and the average number of years since the burn injury was 10.5 for the treatment group and 8.5 for the controls. The psycho-educational group combined didactic materials, audiovisual aids and experiential exercises (e.g., role playing) to build specific skills and apply them in social situations. The treatment group was less withdrawn and had fewer somatic complaints one year after intervention as compared with the control group. However, neither group improved significantly in the domain of social problems. Limitations of the study include the use of broad assessment tools that are ineffective in delineating social problems typically experienced by children who are burn survivors.

Formal school re-entry programmes for pediatric patients are often initiated when a child is admitted for care, and are meant to aid the child’s smooth progression from the hospital to the classroom environment. Guides for conducting school re-entry programmes can be found on the websites for the Phoenix Society for Burn Survivors and the Changing Faces programme. In the few empirical evaluations of school re-entry programmes for burned children, the programmes received positive evaluations from teachers and parents, but failed to have positive effects that reached statistical significance on the adjustment of the affected children (Blakeney et al., 1995).

Evaluation of peer support programmes has been based on patient ratings of satisfaction and the perceived utility of the interventions rather than assessing psychosocial outcomes using validated measures. The Survivor’s Offering Assistance in Recovery (SOAR) programme was developed in 2001 by the Phoenix Society and a committee of experts to train burn survivors and family members to help others who have been affected by a burn injury. The programme, which is now implemented in over 30 burn centres, has been reported to result in average patient satisfaction ratings of 6.3 (1 = not at all, 7 = completely; Bennett, 2007).

Replication, extension, and dissemination of existing social skills training and CBT-based interventions should be conducted using multiple methods of delivery (e.g., web-based, self-help) tested across age groups and follow-up time periods and other potentially useful interventions should be developed and evaluated. Although interventions focused on social functioning may include a consideration of body image issues, to date there have been no empirical studies evaluating the efficacy of interventions to address the body image concerns of burn survivors (Esselman, Thombs, Magyar-Russell, & Fauerbach, 2006; Fauerbach, Pruzinsky, & Saxe, 2007). In view of the pervasive impact of body image concerns, this is a pressing need in the area of burn care psychosocial rehabilitation. Fauerbach et al. (2007) have noted that CBT interventions have been effective in addressing body image concerns in other patient populations (e.g., Cash & Strachan, 2002; Winzelberg et al., 2002). These approaches may be effective in targeting the fear-avoidance cycle and improving adjustment if successfully adapted for disfigured populations (Newell & Marks, 2000). However, there are challenges in addressing the concerns of those individuals with residual disfigurement (Bessell & Moss, 2007), which will be discussed in the final section of the paper.

Health policy perspectives

The review of the literature on social functioning and body image provided above needs to be considered in terms of the practical (e.g., clinical and financial) constraints that dramatically influence whether or not burn survivors receive adequate clinical care. It is relatively straightforward to document current knowledge about social and body image functioning and to derive recommendations for clinical care; it is quite a different matter to ensure that these services are provided. In this brief section we describe ongoing policy developments in the UK and the USA which address psychosocial rehabilitation standards for burn survivors. In the UK, these have focused on ensuring the provision of specialist, multidisciplinary care across the country, including the provision of psychosocial care throughout the patient’s journey. In the USA, developments have focused on forging collaborations between professional health care providers, the research community, and the community of burn survivors.

UK perspective: The National Burn Care Review

As part of the ongoing reorganization of care in the UK, in 2000 the National Burn Care Review (NBCR) recommended that psychological support be an integral part of care for all patients. In 2005, the NBCR convened a working party chaired by James Partridge (CEO of the charity Changing Faces) that included a service user, representatives of UK patient support groups, and psychologists specializing in research and clinical practice in burns. The group was tasked with making recommendations about the range of psychosocial interventions that were required to meet the needs of children, young people and adults who experienced burn injuries, and their families, and with producing detailed proposals for the prospective staffing, roles, training and costs of psychosocial rehabilitation.
Having reviewed the research evidence and the views of expert practitioners, the group concluded that “current burn services [were] inadequate in assessing and addressing the psychosocial needs of patients and families, and there [had] been a widespread failure to employ psychosocial specialists within burn teams nationwide” (National Burn Care Group). They recommended that psychological screening and support for patients and their families should be routine from the start of the patient’s journey and that a whole patient/family approach to care be adopted in light of the complexity and individuality of the psychosocial needs. Psychosocial care should be fully integrated in all aspects of burn care and should be delivered using a tiered approach (see Table 1). Every team member should have a level of awareness of psychosocial issues sufficient to enable them to recognize, discuss and respond appropriately to patients’ needs. More specialist members of the team should deliver higher intensity support and intervention as appropriate.

In 2007, a consensus meeting of 50 burn care team members refined and endorsed the tiered approach to care, and agreed upon the ‘Standards for Psychosocial Rehabilitation’ (National Burn Care Group). These were further refined through consultation with members of the NBCR and burn teams nationwide. The Standards were formally adopted by The NBCR group in December 2008, and the provision of psychosocial care in the UK will be assessed against these during 2009/10. The reorganization of care in the UK has been and continues to be a long and challenging process. Those involved are motivated by a number of potential advantages including greater consistency of care across the country, the availability of psychosocial care for all patients and their families, and the eventual aim of improving knowledge and understanding of burn rehabilitation through the pooling of audit and research data dictated by nationally agreed protocols.

### USA perspective: The ABA Aftercare Reintegration Committee

The American Burn Association (ABA) is the leading professional organization focused on burn care in the USA. In addition to many other activities, it publishes the *Journal of Burn Care & Research* and has an annual meeting attended by thousands of burn professionals. The ABA has created the Aftercare Reintegration Committee (ARC) which combines professionals from the Phoenix Society and professionals from the ABA. The mission statement of the Aftercare Reintegration Committee is as follows:

Coordinate the efforts of the ABA and the Phoenix Society to establish standards of aftercare for those impacted by burn trauma in the areas of rehabilitation and reintegration.

It is the intention of ARC to look for the best ways to foster collaboration between the American Burn Association and the Phoenix Society for Burn Survivors on the creation of clinical care programs as well as research priorities. Such programs and research may focus on such topics as ‘peer support programs, vocational rehabilitation, programs focused on facilitating self-acceptance’ (including body image, social skills and sexuality).

It is important to emphasize that the development of this collaborative effort is a major milestone in the development of burn care health policy issues in the

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<tr>
<th>Level</th>
<th>People and professionals</th>
<th>Activities</th>
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<tbody>
<tr>
<td>1</td>
<td>The whole burn care team (clinical and non-clinical staff)</td>
<td>Recognition of psychological needs (including privacy and boundaries)</td>
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<td></td>
<td></td>
<td>Co-ordinated by level 5 specialist</td>
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<td>2</td>
<td>Professionals with additional expertise such as nurses, physiotherapists, occupational therapists, social workers, chaplains, counsellors, play specialists or equivalent</td>
<td>Basic screening and identification of psychological distress and social care needs in all patients/families, flagging up issues to level 3 specialists if appropriate</td>
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<tr>
<td>3</td>
<td>Trained and accredited ‘psycho-social burn specialist/professionals’ such as assistant psychologists, trained burn specialist counsellors, social workers, community psychiatric nurses or equivalent</td>
<td>Assessment of all patients/families for psychological distress and social care needs on admission</td>
</tr>
<tr>
<td>4</td>
<td>Mental health specialists such as clinical psychologists, psychotherapists and psychiatrists or equivalent</td>
<td>Treatment of basic psycho-pathology (under supervision) including of risk, capacity, mental health issues, substance abuse</td>
</tr>
<tr>
<td>5</td>
<td>Psychosocial care coordinators such as consultant clinical psychologists or consultant psychotherapists or equivalent</td>
<td>Supervised by level 4/5 specialists</td>
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### Table 1. National Burn Care Group: A tiered approach to psychosocial care and rehabilitation.
United States. That is, while this kind of collaboration has been discussed for many years, the fact that it is now an organizational reality is very significant (Acton, Quayle, Fauerbach, & Pruginsky, 2007). There have been multiple prominent presentations of the ARC at the two most recent annual ABA meetings, and there is definite progress being made in building these collaborative relationships. Additionally, the National Institute on Disability and Rehabilitation Research (NIDRR), the USA agency which has been a consistent major funder of research on burn rehabilitation, has explicitly stated that research on long-term psychosocial rehabilitation ideally must be informed by the consumer perspective (NIDRR, p. 1). That is, patients and their families are considered to be essential collaborators in the process. The ABA and ARC embody this patient-provider collaboration.

The Phoenix Society – Fetzer Institute Consensus Conference

Closely related to the initiation of the Aftercare Reintegration Committee was the development of a burn survivor-focused consensus conference on future directions for psychosocial rehabilitation. This consensus conference was organized and convened by the Phoenix Society with the financial and organizational support of the Fetzer Institute in 2008 (Acton et al., 2009). The Fetzer Institute provided support for the Phoenix Society to bring together more than 20 highly experienced professionals from the burn community, including burn survivors, as well as professionals who specialized in providing clinical care and some who had long-term experience conducting psychosocial research (Acton et al., 2009). The focus of this conference was to determine the most pressing psychosocial rehabilitation needs of the burn community and to ascertain how to most effectively provide and empirically evaluate those services. Here we will briefly discuss the clinical research priorities that were articulated with respect to social functioning and body image rehabilitation (Acton et al., 2009).

Social rehabilitation: Clinical research priorities

Several key domains in the social skills training area were identified and highlighted potentially fruitful research and clinical directions. These include (1) developing a tool kit consisting of available and approved programmes for social skills, (2) creating a social skills training programme for adults and children with a family component, (3) promoting dissemination and increased access of the Behavioral and Enhancement Skills Tools (BEST), which simultaneously addresses social functioning and body image issues of burn survivors (Kammerer-Quayle, 2006) by training burn survivors and their families, preparing members of burn teams to initiate training, and providing the tool kit in various user-friendly formats (e.g., written information, video vignettes, web-based online access, alternative language format), and (4) conducting efficacy and sustainability evaluations of specific components of BEST (Acton et al., 2009).

The target audience for social skills interventions was delineated into three groups: survivors (i.e., patients and families), burn care providers, and the larger community. Patient-centred social skills interventions aim to promote behavioural tools to facilitate community re-entry (Acton et al., 2009). BEST provides guidance for improving self-presentation in social interactions (e.g., positive self-talk, maintaining eye contact) as well as planning and rehearsal of responses to difficult questions related to the injury. Description and materials for the BEST programme are described on the Phoenix Society website (Phoenix Society for Burn Survivors. Be your Best).

Members of the burn care team must be trained to improve and sustain core competencies in the area of social adjustment. The burn team should be equipped with necessary information and training to both initiate appropriate discussions and directly respond to patient inquiries regarding social issues. For example, an intervention developed by James Partridge of Changing Faces entitled ‘3,2,1,Go’ provides specific information and tools that can assist hospital staff when helping burn patients prepare for difficult social situations.

Lastly, efforts to modify community responses should be increased through public relations programmes that encourage acceptance of burn survivors with altered appearance. Targeted education to increase knowledge about burn injuries and treatment and emphasize the survivor’s abilities and needs can be provided to the patient’s community via homemade tapes, pamphlets or letters, or a visit from a burn team member (Blakeney, Rosenberg, Rosenberg, & Faber, 2008). A notable public health movement is growing in the United Kingdom to increase awareness of disfiguring conditions and to improve social reactions, and a five-year programme of research on ways of influencing public attitudes towards disfigurement has recently been launched in the UK (Center for Appearance Research).

Body image rehabilitation: Clinical research priorities

One of the main foci of the Phoenix – Fetzer Conference was to discern how best to address the body image concerns of burn survivors and, more specifically, how to address the paucity of
Interventions and research that specifically focus on body image interventions for burn survivors. One of the most important and relatively easy to implement interventions for burn survivors is a much wider dissemination of the BEST programme, which could help to meet the pressing needs of burn care professionals in the USA (Holavanahalli et al., 2008).

In addition to the need to more widely disseminate and empirically evaluate the BEST programme, there emerged from the consensus conference a clear recognition of the need to consider a wide range of possible psychosocial interventions that can potentially facilitate long-term body image rehabilitation. The continuum of psychosocial care for burn survivors (see Figure 1) described below presents the range of possible psychosocial support that might be provided for burn survivors and their families (Pruzinsky, Gilyard, & Fauerbach 2008) and offers a way of thinking about how to make definite steps toward better overall psychosocial care.

The continuum of psychosocial care presented here describes a range of levels of clinical contact that a burn survivor who has body image/appearance-related concerns might have with burn care providers. This contact can range from no contact whatsoever (0 on the continuum) to the most intensive level of clinical contact that could occur (6 on the continuum) which would involve ongoing individual psychotherapy. We believe that the ideal level of clinical care includes a mental health professional available to all burn survivors both in the inpatient and the outpatient setting. However, while this level of care occurs in some treatment centres, this ideal, for many reasons, may never become a clinical reality in the USA. All involved in addressing the psychosocial rehabilitation concerns of burn survivors need to be both pragmatic and constructive in a climate of very limited resources.

We believe that providing no psychosocial care (0 on the continuum) for body image and appearance-related issues that are experienced by the burn survivor is a level of care that is unacceptable and wrong. We very strongly believe that leaving the survivor and family to cope on their own is a form of abandonment, which is unprofessional and lacking in compassion. However, in both countries reviewed, this happens all too frequently. We believe that with a modest amount of effort and resources, it is possible to standardize and readily provide survivors/families with, at minimum, multimedia psychoeducational materials (e.g., video/DVD) (1 on the continuum). These materials would provide basic information about how to cope with body image changes as well as suggestions for how to obtain more information or assistance. It also would be possible to evaluate the efficacy of these low-cost interventions (Clarke, 2001).

We also believe that with a modest amount of effort and resources that all burn centre staff (nurses, occupational therapists, physiotherapists, social services, physicians) could be provided with information that reviews the most helpful observations regarding adjustment to short- and long-term adjustment to changes in appearance (Clarke & Cooper, 2001). That is, we can create a standardized body of information that can be shared by the whole team. This would contribute to a culture wherein it was a part of clinical routine to discuss the emotional challenges of adjusting to changes in appearance. This would result in exposing all patients/survivors/families to some personal contact with burn care professionals who can address concerns, provide some coaching and assessment of need for referral for more intensive interventions (3 on the continuum). We also believe that it would be possible to evaluate the efficacy of these training programmes. This whole-team approach is echoed in the new Standards of Psychosocial Care developed in the UK.

It would also be straightforward to develop highly structured ‘self-help modules’ that patients and/or families (perhaps with some modest amount of clinical assistance) can use to mitigate body image concerns (4 on the continuum). These would be modules addressing the most common types of body image concerns of survivors. Ideally, these modules could be introduced to survivors and their families by knowledgeable burn centre personnel. However, the primary focus of these interventions would be survivor self-help (i.e., low staff involvement). One model for developing these kinds of interventions is provided in the *Body Image Workbook* (Cash, 2008).
It also would be helpful to develop intensive (one or two day) body image workshops (5 on the continuum) that can be conducted at major burn centres and/or at World Burn Congress (organized by the Phoenix Society). These interventions would be based on cognitive behavioural approaches to treatment, which have the advantage of being short-term and highly adaptable to a wide range of clinical and individual contexts. We believe that it would be relatively easy to evaluate the efficacy of these self-help modules and body image workshops, similar to the evaluation of social skills training conducted by Blakeney and colleagues (2005) as well as to adapt these interventions for online dissemination. Researchers at the Centre for Appearance Research in the UK are embarking on a five-year programme to develop a tier of low to high intensity interventions, available in a range of formats (written, DVD, handbooks for group and face-to-face interventions, online formats) designed to address psychosocial difficulties commonly experienced by people with disfigurements. It will be possible to customize these ‘generic’ programmes to the needs of condition-specific groups, as required (Center for Appearance Research).

Finally, it is important to address how we might provide the most intensive level of contact with mental health professions (6 on the continuum); that is, the maintenance and creation of full or part-time positions for mental health professionals dedicated to the short and long-term rehabilitation needs of burn survivors and their families. The most pressing issue is how to pay for these personnel. Additionally, it is a challenge to find professionals who are interested in and competent to provide the broad range of services that burn survivors may need.

Although there are vast challenges that have been identified in the provision of comprehensive psychosocial care for victims of burn injury, the increased attention and treatment development in the areas of body image adjustment and social functioning offers new hope and direction for future care. Diligent efforts to improve burn care must be continued in the form of clinical and research development with an increased focus on consumer-driven approaches. The growing appreciation for ‘real-world’ limitations (e.g., financial constraints, availability of trained personnel) may guide allocation of resources and clinical attention to facilitate maximal impact and increase the focus on successful implementation of potentially efficacious psychosocial interventions.

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