Recognizing self-regulation

It may be useful to reflect on the reasons for the sheer diversity of conditions in which beneficial outcomes have been reported in a selection of yoga-related studies, in this issue of JBMT.

Field et al. report on the benefits of yoga in modulating prenatal depression and anxiety; whereas Rosario has identified yoga — modifications credited with relieving musculoskeletal pain, in the short-term. Moriello has noted the functional benefits of yoga in a case of Parkinson’s Disease — and staying with yoga as the therapeutic model — Hunter et al. report on improved glucose tolerance in older, obese patients, in response to Bikram yoga.

Four quite different clinical issues — involving serious neurological impairments (Parkinson’s), severely labile emotions (prenatal women), musculoskeletal pain, and biochemical dysfunction (poor glucose tolerance) — are all seen to have positively responded to forms of yoga.

Yoga is the one obviously common feature in these four examples, all of which are described in separate papers in this issue. And while, for many, yoga will be seen as the primary reason for the benefits noted, a different perspective might usefully be considered.

The conditions being treated in these reports reflect variations in the theme of failed or failing adaptation — a failure to adapt to advanced pregnancy, or musculoskeletal dysfunction, or a combination of age and obesity, or to the pathological processes of Parkinson’s disease.

These failures correlate with the final — exhaustion — stage of Selye’s general adaptation syndrome — where the systems and functions of the body can no longer compensate resiliency to the particular adaptive demands imposed on the individuals involved (Selye, 1976).

The art and the science of successful ‘treatment’ — of anything — requires the appropriate choice of what could be termed guided adaptation — that is the application of treatment and/or rehabilitation methods chosen to match the ability of the individual’s self-regulating, homeostatic, functions to respond positively. For treatment to be successful there is a need to take account of age, functionality, vitality, the degree of susceptibility of the individual — as well as of the tissues, structures, organs being addressed — in acute, sub-acute or chronic situations.

Within those limitations, there is a need to enhance functionality — locally or globally — biomechanically, psychosocially and/or biochemically — while, in addition attempting to lighten (remove or reduce) adaptive demands.

Restoration of healthier resilience can be said to require:

- enhanced functionality — so that current or future adaptive demands can be better managed
- reduction of the imposed load (combinations of biochemical, biomechanical, psychosocial factors) so that adaptive demands are reduced, and well-being reemerges.

These two options — to lighten the adaptive load, or to enhance functionality — apart from symptom oriented methods — would seem to be the basis for most successful therapeutic endeavors.

And for either of these options to be successful depends on the response of the body’s self-regulating features, its homeostatic potentials.

For the body’s response to be useful requires that the therapeutic intervention does not in itself add excessive adaptive demands — that it is tailored to meet the ability of the individual to respond to whatever therapeutic measure is being utilized.

In the four examples discussed above, variations on the theme of ‘yoga’ were employed. The particular variations in each of these yoga interventions were quite different, one from the other. They were used in ways that the authors considered appropriate in very different settings — in the face of pathology, pain, emotional distress and biochemical imbalances.

The common feature therefore was not generic yoga — it was the choice of a particular yoga variant that was judged to be most appropriate in particular settings.

The common feature to which each intervention (in these cases, yoga-related) was focused, was reduction of adaptation exhaustion, with enhancement of self-regulating potentials as an outcome.

That other therapeutic choices could have been made in order to achieve similar ends is unarguable — whether these
took the form of different forms of exercise, or variations on the theme of stress management, or particular forms of physical intervention?

All or any might have been successfully employed — but only if designed to reduce adaptive load, or enhance the adaptive capacity of the individual, within the constraints of current levels of susceptibility and vitality.

Other — but very different — examples of adaptation modification, by means of different forms of intervention, also described in this issue, include:

- a paper by Finch and Besonnette on the benefits of massage therapy in relation to self-efficacy, in individuals with multiple sclerosis
- Oppelt et al. describe the successful use of a combination of spinal manipulation and dynamic neuromuscular rehabilitation in care of an individual, following a cerebrovascular accident
- Kessler & Hong report on the benefits of whole body vibration therapy in cases of diabetic neuropathy
- and there are others

Much of the rationale for considering 'therapeutic adaptation' in manual therapies is argued by JBMTs Associate Editor Matt Wallden, in both his editorial and practical paper in the Prevention & Rehabilitation section: ‘Facilitating change through active rehabilitation techniques’.

Reference


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