The best rehabilitation programs in the world

Readers of the Journal of Bodywork and Movement Therapies (JBMT) will, since its inception in 1996, have been exposed to a selection of some of the very best approaches available in the rehabilitation field of the modern world.

Breadth

From the ongoing insightful efforts of Liebenson’s *Self-help* contributions (Liebenson, 2009, in this issue focusing on Gluteal rehabilitation) to Werbach’s *Natural Medicine for muscle strain contribution* in the very first issue of JBMT (Werbach, 1996); many readers will be aware of the extraordinary breadth and clinically applicable nature of information presented in this journal.

We have seen Hannon’s *The Physics of Feldenkrais* series (Hannon, 2000) and Hayne’s interpretation of Feldenkrais’ rolling techniques in his article *Rolling exercises designed to train deep spinal exercises* (Haynes, 2003), contextualising them with the motor control work of the Queensland group among others. Further, we can look as far as Oschman’s *work* (2008) and many of the contributions reporting on “subtle energetic” techniques, from ‘Tai chi to Zero-balancing to the manipulation of Qi (or “chi”), to get a feel for the breadth of applied information presented (Jouper and Hassmen, 2009).

Compliance

One such study which embraces the subtle energetic discipline of qigong is the paper presented in this current section of JBMT, by Jouper and Hassmen (2009). This paper, entitled *Exercise intention, age and stress predict qigong exercise adherence*, neatly encapsulates an example of what the focus of this editorial is about.

Intensity, pain and focus

One of the factors frequently cited for non-compliance is the intensity of the exercise performed. The higher the intensity, the greater the stress (per quota of time) to the physiology of the body. Most animals have a natural reluctance to stress their physiology beyond that which is comfortable, unless survival dictates it is necessary.

Human beings are the only animals that have the capacity to override their instinctive drives; why would a cat go to a gym when it can sleep in a warm, sunny spot? Indeed, is it likely that you would see a modern day !Kung hunter-gatherer bench-pressing a heavy log or a rock, just to “develop his pec’s”?

The pain or discomfort involved in training with higher intensities (because the working tissues go into anaerobic metabolism, oxygen debt, and so start to produce waste metabolites in the form of lactate and pyruvic acid; triggering nociceptor firing) is something that most patients – and especially those who are already in pain – would want to avoid. However, it is likely that intensities which create pain or discomfort will only be involved in most middle- to high-end conditioning (strength to power) programs, as most patients simply need to start at the lower end of the conditioning continuum where aerobic metabolism is utilised. These lower end exercises condition the type 1, tonic (slow twitch) fibres to help stabilise body segments and retrain, or maintain, optimal posture.
Simply, if you’re working to the pain, and not through the pain, you’re probably working primarily in an aerobic or postural conditioning capacity. When working at this lower end of the intensity continuum, as one would with a qigong approach, compliance should be enhanced.

However, does this mean that patients and clients should be encouraged to work only at this lower end of the continuum? This question will be addressed below under Specific Adaptation to Imposed Demands.

Pain can, of course, be a very useful motivator; sometimes the very best motivator for exercise program adherence. Nevertheless, as Liebenson (1999) importantly points out, the strategy used by some practitioners to help to motivate patients by focusing them on how much an intervention helps their pain, is dubious.

Instead it is far more pertinent, psychologically, emotionally and practically to focus the patient on a return to function. It should be noted that a return to function in its purest sense really has to include a nullification of pain, as pain inhibits the tonic system of the body; therefore someone who professes function despite of pain is simply compensating well; hiding their dysfunction. Function therefore might be defined more usefully in some instances as “a state in which the individual can perform activities allowing a degree of function that is acceptable to that individual”.

For an elderly person who likes to sit and knit, and who has no intention of ever playing tennis, nor painting the ceiling, a full range of shoulder flexion may be something that is not a high enough priority to warrant their attention, for example.

However, it may not be acceptable for an elderly person whose very retirement is focused on life at the tennis club to stop short of a full range of shoulder flexion; especially if that individual has an extension dysfunction in the lumbar spine, such as segmental instability, stenotic change or spondylolisthesis changes. In this instance an “Oh well, you’re in your 70’s so you needn’t worry too much about that shoulder restriction” attitude, is simply poor management and predisposes to far greater risk of more serious spinal injury and the possible need for surgical intervention.

So a definition of function may be usefully individualised; so long as it is made in conjunction with the knowledge of a skilled therapist with the goals of the patient in mind.

Most patients or clients enter into the working relationship to become such, exactly because they have deviated from the physiological function for which they are designed. They have either done too much physical activity, done too much training at the gym or, in the Lion’s share of cases, they have done too little physical activity or spent too little time training their body to be able to adapt to the daily loads imposed upon it.

### Specific adaptation to imposed demands

The Specific Adaptation to Imposed Demands (SAID) Principle is the negentropic property of a living organism or system.

While the organism is alive, it will attempt to adapt to stresses placed upon it. This means that if someone sits for a long time with a flexed thoracic spine, the thoracic erectors will lay down sarcomeres and the rectus abdominis will take up sarcomeres. The end result is a body whose length-tension relationships reflect the posture that is adopted for the majority of the organism’s waking hours.

When a foot is placed within an ill-fitting shoe (and especially if that shoe has a heel), the great toe will deviate towards the second and the little toe will deviate toward the fourth; not what nature intended, but a specific adaptation to the imposed demand of life within a shoe. This example is given as it is almost endemic in Western populations and is an illustration of Wolff’s law “bone in a healthy person or animal will adapt to the loads it is placed under”, a law which fits under the umbrella of the SAID Principle. In most cases, where there has been a hallux valgus for a prolonged period of time, boney remodelling will occur, and ultimately the joint may become structurally fixed in that position (Figure 1).

Davis’ Law is the soft tissue equivalent of Wolff’s law, while Selye’s General Adaptation Syndrome is useful to understand how these specific adaptations to imposed demands will occur while the organism has the resources for the adaptation, but if the demand becomes too great, or is sustained for too long, an exhaustion phase will occur where the tissue or system under load will break down (Figure 2).

### Finding the middle ground

As the Buddha said, “choose the middle way”. In terms of tissue health, this advice also rings true. To do anything to excess; exercising, drinking water, sleeping, breathing, will always result in poor tissue health and maladaption. To do anything too little; exercising, drinking water, sleeping, breathing, will also result in poor tissue health and maladaption.
Figure 1 A healthy foot … or is it? (a) A healthy foot, with good arches and no obvious hallux deformity. However, in (b), the subject has been asked to extend their toes slightly in order to highlight the line of the extensor tendons. It becomes clear that the extensor tendons betray the amount of dysfunctional “moulding” of the foot into a “shoe shape” – as opposed to a “foot shape”; which would allow a 180° progression of all of the extensor tendons in alignment with the distal phalanges.

Figure 2 Selye’s General Adaptation Syndrome model. Selye’s well-known General Adaptation Syndrome illustrates the typical phases an organism will go through when exposed to a given “stressor”. Initially there is an alarm phase where the body experiences an acute response to the stressor, then if the stressor is sustained, the body will go into a resistance phase where it will cope with the stressor with whatever means are at its disposal. However, after prolonged exposure to that same stressor eventually the body’s adaptive capacity will fail and the exhaustion phase will occur.
This is exactly the case in rehabilitation too. It is useful to view any client as an athlete and to establish their athletic requirements for their "event".

If we design an exercise program that will only condition postural fibres, yet we want to play a competitive sport, we are not creating enough adaptation to survive that sport.

Perhaps the objective is not play a sport but to simply survive occupationally sitting on a chair in a field of gravity; in which case doing a simple dorsal raise exercise (prone cobra) may be an excellent choice to condition for such an athletic requirement.

The diagram (Figure 3) illustrates how load and duration are inversely related in order to create adaptation, and how too much load for too long a duration will result in maladaptation.

Any loading utilised within the triangle which exceeds the duration indicated by the dotted line, results in a functional adaption. Any loading utilised within the triangle whose duration does not pass outside of the dotted will not create enough stress to the targeted tissues for adaption to occur.

The grey arrow below the triangle of adaption illustrates that if the load is too little, there is maladaptation. Being bed-ridden would be an example of where the loads are so low that the adaptations do not favour ongoing function in a gravitational field. Having an arm in plaster or an unnecessary arch support in a shoe would be similar examples of a lack of loading creating maladaptation.

At the other end of the spectrum, the grey arrow at the top of the triangle might represent a load that is so great it will damage the body; a piano falling on someone's head is an example, in this instance, the load is such that there is no scope for adaption, only maladaptation and injury.

Similarly, if the duration is too great (see horizontal grey arrows) this, too, will result in tissue break down. If the duration is too small, for example, the white horizontal line (a), there will be insufficient stress on the system to create adaptation. Whereas white horizontal line (c) works the individual at a low load for a long duration creating an adaptive stress on their system.

The white line labelled (b) is indicative of a load which may create a strength hypertrophy load (mainly type 2A fibres), while (c) may create a maximum strength load (type 2A/2B transition fibres) and (d) may create a power load (type 2B fibres).

For each increase in load, the duration of the exercise must and will decrease in order to have the desired effect; the point being that the load becomes so heavy it can only be lifted for an incrementally shorter period of time (Figure 3).

**Other factors in successful adaption**

Outside of loading and conditioning parameters, there are many other factors that may contribute to the capacity for the body to adapt to the demands of rehabilitation or conditioning program.

Key factors may include:

- Other physical features, such as pain, restriction, instability in other parts of the biomechanical chain;
- Visceral status, such as gut inflammation, reproductive system function, detoxification efficiency;
- Hormonal status, such as sleep–wake regulation, glycemic control, adrenal stress; and
- Limbic-emotional status, such as pain levels, current or previous emotional traumas, financial stress and so on.

A simple illustration of how these factors may interact, is that high levels of pain will result in adrenal stress, which affects glycemic control. If
glycemic control is impaired sleep–wake regulation is impaired. Since healing rate is maximized during sleep, healing may be compromised both from sleep impairment and from sustained adrenal stress. Due to the compromised glycemic control, nutritional choices are usually detrimentally affected, as glycemic lows are met with cravings for quick delivery carbohydrates in the form of sugars, alcohol and/or with cravings for stimulants which do the same, via further adrenal output. All of this compromises repair processes and prevents the individual from recovering effectively from their pain condition. The perception of pain may drive a breathing pattern disorder which can sustain the chronic sympathetic state, inhibiting digestive processes (among many other physiological phenomena) thereby compromising the capacity to heal. Pain, sleep debt, poor nutritional status, breathing pattern disorders and adrenal fatigue all compromise available energy levels and so will often result in poor rehabilitation program adherence, as it takes some energy to amass the motivation to start such a program.

The end result is incapacity to heal which leads to ongoing pain which, in turn, continues to drive the vicious cycle of pain, dysfunction and poor lifestyle choices.

This is just one of many potential positive feedback cycles taking the patient from an acute, toward a chronic, state, which may be avoided with an understanding of a more holistic, integrated approach to rehabilitation (Figure 4).

So in managing our patients effectively, whether we work with nutritional practices or other lifestyle advice as an integral part of our own bodywork and movement therapy, or as an integrated network of specialists who can provide for the patient, we will maximize results and optimize healing by considering this broader view.

Applying the information

To successfully apply this rehabilitative information to the client’s life, it is important to understand how their neurophysiology is programmed to function.

Conscious versus unconscious function

Lipton (2005) explains that the conscious part of the brain, that part which is interpreting the letters on this page to make words, and the words on this page to form information that is usable, accounts for only around 1–5% of cognitive function.

The remaining 95–99% of the brain’s function is accounted for by “unconscious” processes. Included within this “unconscious” majority of cognitive function is control of all autonomic processes; heart rate, breathing rate, satiety, elimination, sleep–wake cycles, habitual behaviours, motor programs and most co-ordinated movement, vestibular function, eating behaviours, limbic-emotional function (or dysfunction) among others.

This means that, while a patient may be able to very well comprehend that it is important to change their diet, to optimize their breathing pattern and to not pronate their right foot as they walk, they have a huge and unfair bias against the likelihood of them achieving success; a ratio of somewhere between 20:1 and 99:1 against. Not good odds!

The triune brain

One of the models that can be usefully applied to our client base to understand why they may have
challenges with exercise compliance, and how they can address these challenges is MacLean’s model of the triune brain (Chek, 2003; Goddard, 2002; Winston, 2003).

MacLean, described by Cory (2002) as “a scientific thinker well ahead of his time”, introduced the world to the term ‘limbic system’. The limbic system, which is only present in very limited form in reptiles and creatures further down the evolutionary lineage, forms a new expanded layer over the deep reptilian (or R-complex) core of the brain, which houses all of our innate survival drives. The final, outermost layer, and that layer which is phylogenetically most recent, is the neocortex, most strongly associated with, and developed in primates.

MacLean’s triune brain has been described as the single most influential idea in neuroscience since World War II (Durant, 1992). Though not without his detractors, his modelling of the human nervous system as a product of our evolutionary past helps us to gain insight into why, for example, when one consciously decides that we have had enough food, we unconsciously reach our hand back into the biscuit barrel to have just one more; or when one plans to get to the gym at a specific time to do the prescribed exercise, we instead unconsciously decide to just check one more e-mail or make one more phone call.

The rationale for these behaviours is explained, in part, by Lipton’s description above of the imbalance between conscious and unconscious decision-making, however, what MacLean’s interpretation allows is an embellishment of why the unconscious mind is over-riding the conscious decision-making. Conscious decisions, arising from the neocortex have a huge amount of hard-wired background information to contend with from the underlying limbic-emotional and reptilian (safety/security, sustenance, sex) centres; and furthermore this deeper, unconscious information is played in a “looped” format, like a scratched record.

Appetite (sustenance), for example, is controlled in the reptilian core of the brain (Chek, 2003). Only when the satiety centres are stimulated do we stop reaching for food. If we are eating food that is nutritionally devoid or deficient (such as the biscuits mentioned above), the satiety centres keep telling your body to continue feeding; so no matter how much your conscious mind tells you to stop because the calories are topping up, the unconscious mind (that is between 20 and 100 times more powerful) is telling you to keep eating. To your surprise (and frustration) the arm keeps moving from biscuit tin to mouth, even without your conscious approval.

Further, the likelihood of embarking on an exercise program, whether it is for performance or for rehabilitation, is dramatically enhanced if we have been programmed to think that exercise is beneficial, enjoyable, fulfilling and so on. If this is not our core belief, perhaps due to a negative childhood experience with sports, or due to a role model (parent, teacher, sibling, rock star) who devalued exercise, no matter how much we consciously know that it is the right thing to do (as advised by our practitioner) the limbic centres keep replaying the message “exercise is for losers!”; “there are better things to do with your time!”; “who’d want to exercise when you can rest?”; “work is more important than play”; “you’re no athlete – stick to the desk work” and so on.

Again, the massive imbalance between unconscious processes and conscious processes results in the kind of compliance we see as commonplace in the rehabilitative setting.

Childhood programming

What may be of further use to the clinician is to understand that it is not just a matter of children “picking up on” habits of their childhood role models, but moreover, it is the fact that childhood electroencephalographic (EEG) activity has been shown to favour a delta brainwave state in early infancy (5 months intra uterine, through to 2 years of age), and to then favour a theta brainwave state from 2 years of age through to 6 years old (Laibow, 1999).

The significance of this is that these brainwave states in adulthood are the state we get into when we are in deep sleep (delta), or dreaming or when we are under hypnosis or trance (theta). In this state, the brain is in a mode of super-learning and is able to pick up huge amounts of data from its surroundings. This is the key time when attitudes, beliefs, feeding habits, exercise habits, breathing habits, postural habits, and on and on, are learned.

Beyond the age of 6 years the EEG activity progresses to a predominant alpha brainwave, a kind of day-dreaming state, and on toward beta brainwave dominance from the age of about 12 years.

In the light of MacLean’s research, most of this early programming will directly influence the reptilian and mammalian components (the reflexive and the limbic-emotional centres) and will then play those beliefs and behaviours for the rest of that person’s life; commonly in spite of their
conscious attempts to understand and change their
behaviours. We have all seen this in adults who
were taught strong, dogmatic belief systems as
children and now, as adults, are able to rationalize
that the belief does not make sense, yet their
behaviours still continue as if they did, do, and will
continue to believe the same dogma.

The good news is that there are many techniques
we can use to help rewrite these programs and
facilitate our efficacy in helping people.

Enhancing success

What interventions can be made to enhance the
likelihood of therapeutic advice becoming incorpo-
rated into the patient or client’s life? There are a
number of techniques that can be usefully employed:

Objective measurement
Structured programs
   “Gong” (see below)
Unstructured programs
Quietening the mind
   Artwork
   Music
   Poetry
   Movement & Breathing
Professional intervention
   Hypnosis
   NLP
   CBT
   TFT/EFT/Psych-K/Bodytalk

Objective measurement

Objective measurement provides a base-line to test
against after an intervention has been made. For
example, imagine a patient measures with a range
of cervical rotation of 45° to the right and 70° to
the left (reference range is 70–90° rotation in the
cervical spine), and through your assessment you
identify that the left levator scapula is short/tight/
hypertonic/stiff, your intervention may be to
provide the client with a home stretching program
for the left levator scapula, and possibly some
active release technique for them to address their
own tender points or trigger points.

If the patient knows that they have been
measured, and that the expectation is, when they
are re-measured after a given time period, the
range of motion will be improved, this is very
motivating for them. This has switched from
becoming an academic exercise (measuring degrees
of motion) to becoming an emotional exercise; the
patient wanting to attain success, and wanting to
receive recognition for their efforts. If pain reduc-
tion is a component, this is also an emotional
motivator. Further, when the patient is re-meas-
ured and found to have enhanced their range of
motion, perhaps by 10°, they are further motivated
to continue their stretching program. We have now
accessed their limbic-emotional unconscious cen-
tres above and beyond (or below and underlying)
their conscious centres.

To throw in a further consideration, what if their
pain has gone now that they have 55° rotation to
the right and still 70° to the left? If we use pain as
the motivator, we stop and leave the patient with
imbalanced function which may result in a return of
pain or compensation elsewhere in the kinematic
chain. However, by focusing on function and on
optimal joint ranges of motion (as an example) we
can continue to progress and to optimize our
patients’ or clients’ response.

So, by using objective measurement in rehabili-
tation, this allows access to deeper components of
the neurophysiology (the limbic-emotional centres
in particular) than perhaps just a more subjective
“you look a bit tight to the right, try stretching in
that direction” kind of an approach. In this latter
example, the patient may still have some motiva-
tion to “do well” for themselves and for their
practitioner, but the boundaries of success and
failure are ill-defined and subjective; all that is left
is the focus on the pain, which is ill-advised
(Liebenson, 1999; Wallden, 2008).

Structured programs

Structured rehabilitation programs allow the pa-
tient or client to have clearly defined exercises,
with specific repetition ranges, sets, rest periods,
sequencing and so on.

A benefit of a structured program is that it allows
no room for subjective interpretation. Everything is
defined as to what to do, and when, how, why and
where to do it.

The qigong paper in this section by Jouper and
Hassmen (2009) discusses the concept of intrinsic
motivation versus extrinsic motivation. The intrin-
sically motivated individual is inspired by internal
rewards such as a sense of self-worth, while the
extrinsically motivated individual is inspired by
external recognition, such as praise from others.

The example above of using objective measure-
ment to motivate patients utilises both intrinsic
motivation (the attainment of greater balance and
function as demonstrated by measurement) and extrinsic motivation (the sense that the patient has achieved their own and the therapist’s goals by following the program).

It seems that extrinsic motivation is often more important in the earlier stages of intervention, progressing to extrinsic motivation in latter stages (Ingledew et al., 1998). This implicates the need for competency in understanding the bespoke motivations (extrinsic especially) of each individual engaging in a rehabilitative program, whilst using techniques to encourage a successful start to the program. Once the start has been made and the program is underway, it becomes more likely that the participant will feel the benefits (ranging from increased flexibility, stability, strength, energy, endorphin production, to decreased pain, stiffness, instability, imbalance, and so on) which will go on to provide intrinsic motivation to continue with their current, and subsequent program(s).

Gong

A gong is a Chinese instrument, often used to alert those within earshot of a given event. However, “gong” can also literally be translated as “work”. This is the meaning of qigong – “energy work”.

In many forms of energy work, it is traditional to start with a 100-day gong. This means that you work on your mantra, your form, your energy harvesting – whatever the activity may be – for a continuous 100-day period. If a day is missed, the gong must be started again from day 1. This “challenge” is a clever way of breaking through the initial extrinsically motivated period to reach the point where intrinsic motivations – the sense of wellbeing gleaned from practicing – predominate.

Further food for thought

Interestingly, research conducted by Wansink et al. (2007) showed that intrinsic and extrinsic motivations may also be culturally evoked. For example, a phenomenon known as the “French paradox redux” that allows French people to eat all the “forbidden” foods (wine, bread, cheeses) and stay thin, while Americans get do the same, but get fatter, may be explained by cultural differences.

The researchers found that while the French use internal cues – such as no longer feeling hungry – to stop eating, Americans use external cues – such as whether their plate is empty, whether their beverage has run out and whether their TV program is over.

The study, which analyzed questionnaires from 133 Parisians and 145 Chicagoans, also found that the heavier a person is, the more they rely on external cues to tell them to stop eating, and the less they rely on whether they feel full.

Non-structured programs

Non-structured programs are a different way to encourage patients to make a positive start in a rehabilitative context. Non-structured programs do not delineate when, where, how many, and so on, but they do typically use cues in the daily environment to trigger a reminder for the individual to do the exercise.

Red dot therapy (Comerford and Mottram, 2001) would be one example of such a program; where small red stickers are placed on items of daily use, such as tooth brushes, telephones, kettles and so on. Each time a red dot is observed the individual is cued to do their exercise or correct their posture, or screen their breathing technique; whatever the objective may be.

Other similar concepts to red dot therapy are using cues such as every time the phone rings for an office worker, or every time you pass a service station for a truck driver, or setting a countdown timer on a digital watch, or a reminder on a computer to go off at regular intervals.

These non-structured programs require no planning, or significant time allocation and so may be more easily managed into the schedule than a structured program. However, the relatively easier management of non-structured programs is easily matched and outweighed by the adaptive benefits of a more structured program.

In addition, it should be noted that the unconscious mind processes some 20,000,000 environmental stimuli per second, while the conscious mind processes around 40 environmental stimuli per second (Nørretranders, 1999, in Lipton, 2005). That is a lot of potential distraction by the unconscious mind from these “non-specific” cues.

Quieting the mind

One further approach that may help to enhance the efficacy of a rehabilitation program is any technique which helps to quieten the mind.

During mind-body practices, such as Tai Chi, qigong, meditation, Hatha yoga, etc., brainwave activity tends to drop from a stressed beta state to an alpha-toward-theta state. This, in itself, is likely to
aid adherence to a rehabilitation program as it means the program is not perceived as a stressor to the body and, importantly, it means that the participant is in a more “suggestible” state. If, as part of their program, they are focused on the results or goals they are working towards, or the function they are creating through their program, they can help to override some of the faulty or limiting behavioural programs that may otherwise have inhibited their progress.

Artwork

Using artwork, such as painting, modelling, drawing a mandala, can be an effective way to engage the right cerebral hemisphere, move the patient toward a state of parasympathetic dominance, move brainwave patterning away from the beta state and to focus them on their goals; especially if the artwork is themed around their goals.

Music

Similarly, music may be used to take the brainwave state down to a more relaxed alpha or theta wave. This can be used in isolation to create calm focus, or to help in reprogramming thoughts, ideas, beliefs or values that are impeding success. In such an instance, music specifically designed for this purpose can be used in tandem with a mandala, a mantra or affirmation, or in conjunction with poetry.

Poetry

Poetry also can help to move the reader/writer into a more parasympathetic state and can be themed to engage the individual in their goals and ambitions. If the patient is involved in the creative (right hemisphere) process itself, so much the better.

Movement and breathing

Hernandez-Reif et al.’s (2001) work shows that Tai Chi reduces symptoms associated with stress and stress hormone levels (Jin, 1989) and is therefore consistent with a mechanism of enhanced parasympathetic activity.

Again, movement – particularly when performed slowly and rhythmically – can facilitate any of the above interventions. The speed of the movement is relevant as a slow, repetitive, movement under low load does not necessarily induce a sympathetic response; whereas a faster movement with or without high loads, necessarily will induce an oxygen debt and a reinforcement of the stress response. Positive intentions, affirmations or visualisations may be held during movement, to help to rewrite underlying aberrant programming, and instigate new functional behavioural programs.

Such movement may be done in tandem with musical interventions, and may be preceded by artwork to set the mood and the tone.

Indeed, Oschman discusses that bodywork itself and other repetitive practices such as yoga, QiGong, t’ai Chi, meditation, therapeutic touch, etc. may stimulate parasympathetic activity and that the repetitive nature of these practices not only acts in a sedative, meditative way, but also may gradually lead to more structural coherence (crystallinity) in the tissues, facilitating both the detection and radiation of subtle phenomena, such as energy fields (Oschman and Oschman, 1997).

Professional help

Professional help to optimize the success of rehabilitative compliance can come in many guises. Not to underplay them, I will briefly mention some by name here; as to go into any depth is beyond the scope of this article and to not go into depth would not do them justice.

Hypnosis, neurolinguistic programming, cognitive behavioural therapy, emotional freedom technique, thought field therapy, Psych-K and Bodytalk are all examples of therapeutic interventions that may be useful in helping a client adhere to rehabilitative and other lifestyle modifications. Each has its own bias towards influencing a brain state, a behavioural pattern, an energetic pathway and so on. Varying levels of empirical and anecdotal success are reported with each method, and it is not the intention to suggest that each method is more or less valid than the next, but moreover to provide a list of some of the possible methods that may help.

It is true to say that many practitioners in these arts may be versed in more than one of these techniques and use them in isolation or in combination depending on their evaluation of the patient.

The best rehabilitation programs in the world

To conclude, application of the resources of JBMT may well allow readers to formulate some of the
very best rehabilitation programs in the world, but it is imperative to recognise that it really does not matter how effective your program are if the patient does not do them ... they are of zero benefit to anyone; the patient, their family, their friends and their network, nor to you, your sense of worth as a therapist, nor to your business.

It is essential that we look into ways to enhance the efficacy and adherence of our rehabilitative interventions if we are to make the biggest, most beneficial, impact we're capable of with our skill-set as bodywork and movement therapists.

Finally, it is a well-known adage in the self-development literature that “If you don’t go within, you go without”.

As Jouper and Hassmen (2009) demonstrate in this section, such wisdom can be seen to operate even at the level of our musculoskeletal rehabilitation programs. But let us not forget that there is more to musculoskeletal health than the musculoskeletal system; we must also be aware of, if not expert in, visceral factors, hormonal factors and limbic-emotional factors contributing to its health. Breathing habits, belief patterns, lifestyle choices and nutritional decisions all contribute to the ultimate success or failure of our programs and our lives. Our ability do go deep down into our emotional and habitual roots may be the difference between function and dysfunction, between success and failure.

It is useful then to remember that in many instances, if you don’t go within, you go without. And also to note that, in the case of food, if you don’t go within, you go ... ... get more!!

References

Chek, P., 2003. How to Eat, Move and be Healthy. CHEK Institute, CA.


Cory, G., 2002. Reappraising MacLean’s Triune Brain. The Neuroethology of Paul MacLean (Chapter 2).


