TOUCH FOR HEALTH and APPLIED KINESIOLOGY

Their Value in Relation to Physiotherapy

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INTRODUCTION

In these days of increasing interest in the value of self-help, health education and prevention both inside and outside the medical profession, there is a greater need for us as physiotherapists and as members of a health care team, to widen our horizons and move towards a more holistic way of helping our patients. While it is important not to lose sight of the fact that first and foremost we have trained to approach our patients from a physiotherapist's point of view there are complementary therapies which combine beautifully with the well-tried and effective modalities that we have used for many years.

In this way we can influence the well-being of the whole person enhancing the body's own resources for healing to put right, or in some cases to prevent, a state of dysfunction or disease. Thus our facility to help the patient is significantly increased and the therapist/patient relationship enhanced as we both become part of a "health-creating" team. We find our role changing from that of therapist to teacher and the patient taking a more positive part as student of their own health.

The purpose of this paper is to introduce a complementary approach known as "Touch For Health" (TFH) - a synthesis of simple "muscle balancing" techniques using touch and massage, taken from the intuitive science known as Applied Kinesiology, and to show how these can be effectively used in conjunction with other therapy skills.

Applied Kinesiology is a system using the patient's body as a laboratory of investigation. It augments the standard diagnostic approaches and can also be used very effectively to evaluate certain methods of treatment.

The modus operandi is via the musculo-skeletal system, and uses a series of muscle tests to provide an accurate, instantaneous and practical way to interpret

functional disturbances in the musculo-skeletal and other systems of the body.

Kinesiology is a subject covered at length from early stages of physiotherapy training. To quote from D. Walther, D.C., "The word comes from the Greek word 'Kinesis' meaning motion and 'ology' meaning the study of a science or branch of learning. Kinesiology, then, means the study of the principles of mechanics in anatomy in relation to human movement." In fact it is on these principles that the whole rationale of physiotherapy treatment is based.

Referring to Applied Kinesiology, the term "applied" puts into perspective this utilisation of kinesiology by translating it into practical use. (Webster)

As a means of determining the extent and degree of weakness of individual muscles and muscle complexes resulting from diverse injury or disease, physiotherapists use testing methods as described by Kendall & Kendall (1936). The results are graded on the Oxford 1 - 5 scale of measurement, e.g. from the merest flicker of muscle contraction to full strength against resistance.

Applied Kinesiology also uses the Kendall & Kendall testing methods the difference being that whereas in the first case the specific muscle system alone is being evaluated - in the second, assessment is being made of the present state of all the body systems. (This concept will be explained later in the text). The test is performed isometrically with the muscle in the inner range and resistance is only enough to determine the tone or "locking" ability of the muscle. The person being tested is merely asked to "Hold" against the tester's pressure and to avoid pushing or attempting to "win a contest." With practice it becomes a simple matter to spot a "give" in a muscle compared with its opposite number. (It should be noted that a "weak" muscle in Applied Kinesiology terms is one with inhibited motor neurones and not altered in terms of muscle bulk).

THE CONCEPTS OF BALANCE

The development of Applied Kinesiology has been primarily the work of chiropractor Dr. George Goodheart, who observed that most muscle spasm is not primary but secondary to opposing muscle weakness. An analogy is the spring

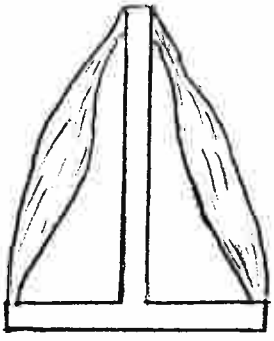
balanced door which remains in equilibrium as long as both springs have the same tension. If one spring "weakens" the other will knot up pulling the door out of its normal position therefore causing an imbalance which is akin to the situation in the musculo-skeletal system. (J. T ie, 1973).

To quote from D. Walther, D.C., 1980:

> "Muscles which were hypertonic or in 'spasm' had been treated with orthodox methods of diathermy and other forms of heat, ultrasound, massage, etc. With manual muscle testing it was frequently found that muscles which were antagonists to hypertonic muscles tested weak. Upon strengthening these muscles the tension in the hypertonic muscle was dramatically reduced without any treatment being administered."

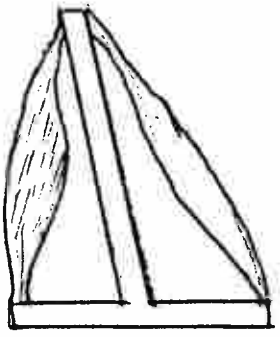
(See Figs. I & II).

Fig. I



When muscular pull is balanced, structure is balanced.

Fig. II



If functional muscle weakness is primary, the antagonist contracts from lack of opposition. Generally there will be pain in the contracted muscle.
(Walther, 1980)

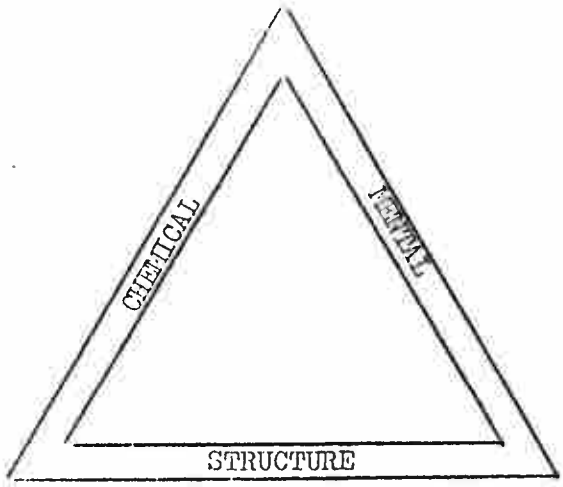
(It should be noted that the expression "hypertonic" does not refer to an upper motor neurone lesion but merely to muscles in tension).

It has also been found through Applied Kinesiology that structural integrity and body function are intimately associated and imbalances in the structural aspects of the person will be reflected in the mental and chemical aspects to a greater or lesser degree.

Therefore all aspects of the person, physical, chemical and mental should be, ideally, in perfect harmony or balance in order for health to be maintained and enhanced. Disturbed brain signals can throw us into imbalance and result in bad posture, inadequate digestion, and psychological stress and the results of this are seen in every clinic and hospital department.

This state of balance is known as the Triad of Health, a triangle made up of mental and chemical sides with a structural base. (See Fig. III).

Fig. III



Triad of Health

Literally all health problems whether functional or pathological are involved with one part or all of the Triad, (see diagram). Walther in his book "Applied Kinesiology", Vol. I. cites many examples of this. Here is one which shows two structural imbalance can affect chemical function.

> "The example that follows describes a sequence of events that is not uncommon. A patient falls, or otherwise causes a sacroiliac subluxation. If a sacroiliac ligament is irritated by a subluxation such as the posterior superior iliac spine in a posterior inferior position, the sartorius and gracilis muscles attempt to make mechanical correction of the pelvis. If they are unable to accomplish this correction, they are consistently under stress. The sartorius and gracilis muscles are associated with the adrenal gland. Continued stress to these muscles can activate the neurolymphatic reflexes, neurovascular reflexes, or the associated meridian, thus causing a functional problem in the adrenal gland. As a result of the secondary adrenal involvement, symptoms may develop from adrenal hormone imbalance. The adrenal dysfunction cannot be corrected permantly until the sacroiliac subluxation has been corrected.
>
> On the other hand, this is a two-way street. If a patient has a significantly poor diet or other form of stress which is affecting the adrenal gland, the energy and controlling patterns to that gland may ultimately cause weakness of the sartorius and gracilis, which will then fail adequately to support the anterior superior portion of the innominate bone. As a result, a sacroiliac subluxation is very likely to develop spontaneously or with mild trauma. Repeated adjustment of the sacroiliac will give only temporary results until the energy and controlling patterns of the adrenal gland are returned to normal. Again, the muscle organ association gives the physician knowledgeable in the relationship an understanding of the mechanisms taking place."

In this example Walther mentions the links between the sartorius and gracilis muscles and the adrenal glands. Applied Kinesiology has named 14 "indicator muscles" and 28 subsiduary muscles which are all associated with a specific organ and meridian energy system and also associated with these are reflex points which have an influence on the lymphatic system (neuro lymphatic or Chapman's reflexes), circulatory system (neuro vascular reflexes), and acupuncture meridian energy system (acupuncture holding points).

After working on the appropriate points these muscles should become facilitated and show "strong" on retesting, with noticeable influence on the Triad. This is called "muscle balancing". Sometimes the muscle itself needs "waking up" and this can be achieved using specific massage to the Golgi tendons at the origin and insertion of the muscle.

The skills of Applied Kinesiology were for some years solely used by trained chiropractors until Dr. John Thie, D.C., Founder President of the International College of Applied Kinesiology recognised the potential value these methods could have in the prevention of disease. In order to give his patients some simple and safe self-help techniques he gathered together a selection of Applied Kinesiology methods and published these in simple form as the Touch For Health Manual. Now throughout many countries of the world TFH is being taught to lay people in the hope of encouraging them to take more interest in their own health and that of their families and increase awareness of how environmental factors can influence well-being. Medical professionals can also draw from these and other Applied Kinesiology methods in the treatment of their patients.

USING TOUCH FOR HEALTH IN PRACTICE

Now that we have covered the concept and significance of TFH and its "parent" science Applied Kinesiology, we can look at how we can bring these into the various aspects of rehabilitation.

TFH is all about giving the person back responsibility for their own health care. It is all about teaching them what happens to their body energies when they get into bad postural attitudes, eat poor quality food and allow themselves

to accumulate mental stresses. Therefore it has a valuable role to play not only in out-patient departments, in geriatric wards, in rehabilitation of chest conditions, in paediatrics, in neurological conditions, before and after operations, in maternity, psychiatry etc. but also, even more importantly, in prevention and education.

It is worth bearing in mind that a large proportion of the patients we work with have little more than a dysfunction involving one or more of the sides of the Triad - structural, chemical or mental. These do extremely well with TFH and other aspects of Applied Kinesiology and their systems only need a slight 'nudge' in the form of some simple muscle balancing techniques to restore full function. Patients with chronic dysfunction may, of course, have pathological changes as well, i.e. a state of tissue alteration that can be verified histologically and radiologically. However, using muscle balancing techniques will in many instances halt the progress of the pathology and certainly will give the body renewed potential for reversing the negative situation that has been allowed to develop.

No matter what the patient's dysfunction or pathology, or which part of the body is affected, we need to assess them holistically in terms of their environment and where they are in terms of the Triad. There is first of all a need to question them closely about aspects which have a bearing on this - bladder and bowel efficiency, abdominal stress and/or digestive problems, headaches, their diet, especially intake of stimulating drinks like tea, coffee and alcohol as well as refined carbohydrates; daily water consumption (dehydration can often be the cause of muscle imbalance), home environment, energy levels, sleep facility, emotional state and increased nervousness, their ways of coping with stress, as well as the more structurally designed questions which as physiotherapists we use as a matter of course. These questions will often reveal a factor which they have not appreciated as important but may give a clue to the real cause of the problem.

The next stage is involved with postural assessment - asking the patient to demonstrate how they stand, sit and walk and asking them to observe the way the body is balanced - looking for any signs of asymetry of muscles that are weak or in tension, watching how they walk, observing whether their knees are locked, their arms swing evenly etc. This may well give us a good idea of the muscles we could find weak on testing.

Now it is useful to perform a muscle balance using the muscles related to the 14 meridians to establish the pattern of imbalances. Using the balancing techniques and gradually "switching on" the muscles that have been found weak should allow the patient to feel much more "alive" and full of energy. Aches and pains may well have disappeared or diminished.

After completing the balance which should only take 10 minutes or so with practice, it is important to get the patient to observe their posture again in sitting, standing and walking. Changes may well be dramatic and it is very good for them to relate to their bodies in a new awareness of body energy and balance.

THE SIGNIFICANCE OF FOOD TESTING

As part of the whole person approach we may well need to pin point a patient's food sensitivities as these can be a key factor in many chronic conditions, e.g. back problems, "arthritis", headaches, "fibrositis", frozen shoulders, etc. Accurate information on foods that either enhance or detract from a person's energy (e.g. biogenic, biostatic or biosidic) can be found from simple testing - the food is placed in the mouth and muscles associated with various organs of digestion are checked. The muscle will change strength within seconds of ensalvating the food if that organ is affected. Using this method of testing is very helpful as a way of showing the patient how very dependent the musculo-skeletal system is on the right diet. In this way they will begin to take more responsibility for their well-being as they realise their symptoms are frequently caused by dietary indiscretions. The value of a varied diet should be pointed out to them. These food sensitivities may only be a temporary matter and do not necessarily constitute a lasting "allergic" factor, i.e. muscle testing shows the situation at the present time.

A common example of how chemical imbalances can affect structure is seen all the time in out-patient departments and doctors' surgeries. The patient presents with their major symptom being, say, a painful lumbar region and possibly associated leg pains. There seems to be no obvious cause - no hasty movements, injury etc. and the history is rather vague.

On close questioning they may admit to having had some recent stomach trouble - perhaps following an over indulgence in a particular food, or a radical change of diet or a recent food binge. We may find on muscle testing that some of the muscles relating to the small and large intestines and kidneys (the abdominals, quadratus lumborum and psoas) may be weak. Using an Applied Kinesiology method of evaluation known as Therapy Localisation we may identify a spinal fixation (intersegmental muscle tension) at a level associated with the irritated organs. As well as a TFH muscle balance, we may need to use some manipulation or mobilisation or Mackenzie exercise regime to restore full function. This situation has occurred largely as a result of a body-chemistry disturbance with toxins building up within muscle systems involved producing the organ irritation which in turn causes the fixation, and once the patient is balanced again it may never re-occur. However they need to recognise their own role in the prevention of a re-occurence by eating appropriately and giving consideration to good posture.

THE VALUE OF EMOTIONAL STRESS RELEASE

Another frequent cause of physical symptoms is emotional stress. This can be demonstrated impressively by asking the patient to focus on an aspect of their life which is causing stress while a strong indicator muscle is tested. The muscle will weaken immediately if the thought is stressful. A very commonly seen situation in the rehabilitation context is the patient slowly recovering from an injury, say a sports injury, RTA or such like. The physical recovery may well be hampered while the memory of the injury is still affecting the muscle response.

Another problem physiotherapists have to cope with is a patient's long-standing unresolved pain. There may be a large emotional element associated with

this which can be demonstrated via muscle testing. TFH has a very simple and effective means of rebalancing the emotional aspect which is called "Emotional Stress Release" (ESR). To correct the situation the therapist lightly holds the neurovascular points on the patient's forehead associated with the frontal hemispheres while the patient thinks or talks through the problem that is causing stress. In the case of chronic pain, they are asked to focus on it fully, describing the dimensions, shape, colour, texture etc. to gain a positive attitude to it. In the case of an injury it will need to be "relived" either verbally or silently to diffuse the memory completely.

A few minutes of this technique is often all that is needed to allow the whole situation to change in the body and the patient to feel quite in charge of the situation again. They will be able to think of the injury and/or pain in an objective way - all effect on the muscles will have gone. They can be shown how to use these simple techniques at home if need be.

The physiological significance of ESR is that of restoring proper blood supply to the frontal brain to allow the adrenal system to recover from the unconscious "flight or fight" situation which is our response to stress. Hans Selye has written about General Adaptation Syndrome in his book "The Stress of Life" (1978).

CROSS CRAWL EXERCISE

Associated closely with other TFH balancing methods is a contralateral exercise called Cross Crawl which needs to be part of a preventive regime taught to every patient regardless of their problem. This exercise, performed on a regular basis, encourages co-ordination between the brain hemispheres and facilitates the desired cross-lateral signalling which is the secret of good body function. It's specific values include improving concentration and relaxation, facilitating the walking gait pattern, increasing the flow of cerebro spinal fluid, circulation and lymph.

Poor neurological organisation can be the trigger for many imbalances relating to the Triad of Health - in many situations in everyday life we constantly

use our bodies in a "homolateral" way, e.g. carrying on one side only, standing and sitting in an unbalanced way. Eating wrongly and thinking negative thoughts can also disturb brain signalling.

The cross crawl patterning is best performed lying on the back and ideally should be done actively by the patient, or in situations where this is not possible, i.e. in cases where they are too ill, unconscious, too young, or handicapped, the therapist can move the patient's limbs passively, moving the opposite arm and leg simultaneously. The scope for using this in rehabilitation is enormous and really good results have been reported with stroke patients, other neurological cases, rheumatoids etc. in musculo-skeletal disorders encouraging old people to move more easily etc. and as a preventative measure in sport and at home with the family.

REACTIVE MUSCLES

TFH also has a remarkable technique to restore the correct facilitation to damaged or over used muscles. The "Reactive" muscle situation is the result of a disturbance in the spindle cell mechanism in one or more muscles in the body which in turn prevents the "reactive" muscle from "switching on" to work as a prime mover. The effect of this imbalance is far reaching and can be the cause of residual pain in muscles that continue to remain unfacilitated.

FEED BACK ON TOUCH FOR HEALTH

As a preliminary to writing this paper a questionnaire was sent to physiotherapists in Britain who are known to use Touch for Health methods in conjunction with their other skills.

The broad conclusions that were drawn from this have shown that:-

1. Patients' symptoms improve more rapidly and fewer treatments are usually needed.
2. The patient's understanding of the connection between their health and their environment is changed for the better. In this way their general health improves almost invariably.
3. The rapport between the therapist and patient is stronger and relationships become more meanginful. This is especially true if using ESR techniques.
4. Patients are often keen to learn these simple health care techniques and to use them with their families and friends.
5. TFH encourages the therapist to take an increased interest in their own health.

In order to bring together the practice of TFH in relation to the type of conditions physiotherapists may treat, here are some of the ways in which it can be used.

In the treatment of:-

1. Stroke patients, especially with proprioceptive loss. Cross Crawl, gait receptor techniques, as well as a basic muscle balance are especially good.
2. Most shoulder problems - post-traumatic and the "frozen" type (often the latter may just turn out to be a case of "over-energised" meridians and these do especially well.)
3. Cerebral Palsy - cross crawl especially valuable.
4. In abdominal control and posture correction in ante and post natal problems. Also the use of ESR for women in labour is marvellous.
5. Spasticity, e.g. in M.S., strokes, etc. where the cause is over-energised systems, sedating meridians can be very effective.
6. Patients on long-term bed rest, e.g. with fractures on traction etc. regular balancing using muscle tests where possible can do much to relieve severe pain and maintain the muscles etc. in better condition.
7. All knee injuries - using a balance in conjunction with Reactive techniques and an Applied Kinesiology method to relieve possible "Shock Absorber" disturbances.
8. Long standing headaches - both tension and migraine type - food sensitivity testing may well show a chemical imbalance.
9. Cases where there is an apparently shortened leg. Often these clear up well with full muscle balancing without the need for manipulations.
10. Sciatic nerve impingements involving a loss of tone in the piriformis muscle among others. Balancing will often totally relieve leg pain and parasthesia.
11. Patients with Hyperventilation or Asthma. Using ESR in conjunction with the breathing control techniques will often relieve emotional stress associated with this.

12. As a prophylactic method to use in sport and the prevention of injuries. Players can learn to test and balance each other, do cross crawl and other techniques before the game or contest; use ESR techniques to improve their self-image and confidence.

CONCLUSION

For the full value of TFH to be realised it needs to be experienced first hand. As physiotherapists and other therapists get more practice in using these remarkable methods they will be able to demonstrate their value to other members of the medical professions.

In order firmly to establish this and other complementary therapies there is a great need for careful and appropriate research in the form of clinical studies. In this way it will gradually be possible to build bridges between orthodox and complementary practices.

The Research Council for Complementary Medicine has been set up to assist with research of this kind. It's aims are to encourage the incorporation of what is best in these therapies and techniques into the mainstream of modern medical practice.

One of the physiotherapists who returned the questionnaire has written:- "TFH has brought a completely new dimension into my treatment of patients - a new way of looking at the body - a simple and marvellously effective way to tap the body's resources so that the body heals itself naturally without interference of external (and maybe harmful) agents."

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