Whiplash Syndrome: A Transformational Approach

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One hundred patients who suffered from whiplash after a motor-vehicle accident were treated in a 1-week, intensive, multidisciplinary pain program. The patients had not responded to standard therapeutic approaches for at least 4 months after the accident. The aim of the program was not so much to "kill pain" as to help the patients make a key shift in attitude, described as a "transformation." A number of therapeutic methods were employed, including traditional Chinese acupuncture, biofeedback, counselling, relaxation, stretch and spray, group interaction and didactic education, in an appropriate environment. Improvement was noted in 84% of the patients. The authors describe "transformational medicine" as a new approach that transcends the current scientific medical paradigm.

Physicians have long been aware that there is an elusive attitude that facilitates the healing process in patients. Unfortunately, when people are sick, they are frequently so affected by the illness that they become depressed or morose, so that their state of mind obstructs the healing process. Nowhere is the phenomenon more apparent than in chronic illness, since such illness rarely responds to rational therapy. If it were possible to help patients change an unhelpful attitude, then the natural healing process of the body could well be reactivated.

This paper, although not objectively scientific, is the result of 3 years' work with a specific chronic illness – whiplash – which has long frustrated physicians. Because orthodox treatment of chronic pain yields poor results, physicians have a responsibility to examine alternative therapies, unless they are dangerous, prohibitively expensive or otherwise contraindicated, even if these therapies contradict conventional thought.

The Problem Of Whiplash

Whiplash is common in Western society. It occurs almost exclusively in motor-vehicle accidents when people are not prepared for a sudden trauma. Often the situation will be one in which the individual is "rear-ended,"[1] as was the case in most of our patients. At the moment of impact, the cervical column undergoes over-stretching as the head acts as a pendulum on the end of the spine. There is soft-tissue damage, muscle strain and injury to the joint capsules, in addition to joint dislocation that spontaneously reverts.[2]

The result of the accident mechanism is to produce pain and stiffness in the neck and shoulder as well as headaches and nerve-root pain extending down one or both arms. Neck stiffness may be felt immediately or be delayed for up to 2 days after the accident, although in most cases it occurs within 1 to 2 hours.[3,4]

Standard treatment regimens are largely physical and include immobilization, physiotherapy, manipulation, massage therapy and drugs,[5] but, on the whole, the conventional treatment of whiplash syndrome is unsatisfactory. Studies show that the mean duration of disability after whiplash injury is anywhere from 18 to 24 months.[6,7] Patients who do not recover after a few months become labelled as neurotic. This syndrome has been called "accident neurosis,"[8] and, if it persists, it merges into the "chronic pain syndrome."[9] Because the syndrome has been thought to occur inversely in proportion to the intensity of the physical injury,[10] the patient's disability

becomes increasingly disbelieved by a sceptical medical profession, who can only legitimize pain when there is demonstrable structural damage. The sceptical viewpoint is supported by the fact that these patients usually have legal suits pending, in which severe prolonged disability offers a clear financial advantage.[11]

Contrary to this view is that many people still are in pain several years after the accident, and it is difficult to conclude they are all malingering. In Mason Hohl's retrospective study,[4] 63 (43%) of 146 people with no pre-existing degenerative change were still in pain 5 years after the accident, even though many of these patients had settled their claims. Thus, interestingly, many of the assertions that hold accident victims to be malingering have been shown to be false, but this has not stopped some professionals from believing them.[12]

The time when whiplash syndrome merges into the chronic pain syndrome is ill-defined. For the purpose of this paper, the syndrome of chronic pain is considered to have emerged when the patient's pain from the whiplash continues beyond the time when one would expect the acute injury to heal. Thus, the syndrome may emerge as early as 2 to 3 months after the accident and almost certainly is present at 6 months.

The literature contains many papers detailing the injury mechanism,[13] prognosis and rational treatment of whiplash syndrome, but the frequency of continuing pain and disability challenges the philosophical roots of our health care system. The syndrome defies all rational modes of therapy and leaves us floundering for an effective therapeutic approach. Few investigators have offered a treatment program that is based upon an understandable conceptual framework and has a solid success rate

The Role Of Emotions In Chronic Pain

Conventional medicine attempts to explain chronic pain structurally or mechanistically without reference to the patient's emotions. Although most observers agree that the emotions play an important role, conventional medicine has no framework that takes them into account. Greenwood[14] has described a holistic model of whiplash syndrome in which the emotional factors inherent in the aftermath of the motor-vehicle accident coalesce to produce the syndrome of chronic pain. He used acupuncture and traditional Chinese medicine to help patients access these emotions directly and, in doing so, observed phenomena that could not be explained by means of our structural, rational, biomedical model of the disease process. Figure 1 details the emotional consequences of a motor-vehicle accident and illustrates the build-up of negative emotional charges in many of these patients. Paradoxically, the societal structures intended to help people recover serve to increase these negative feelings. The failure of standard physical therapies produces frustration and mistrust in all parties involved. Patients come to mistrust the doctors, lawyers and adjusters, and the professionals disbelieve the patients. It is in this climate that accusations of malingering, so often directed at whiplash patients, arise.

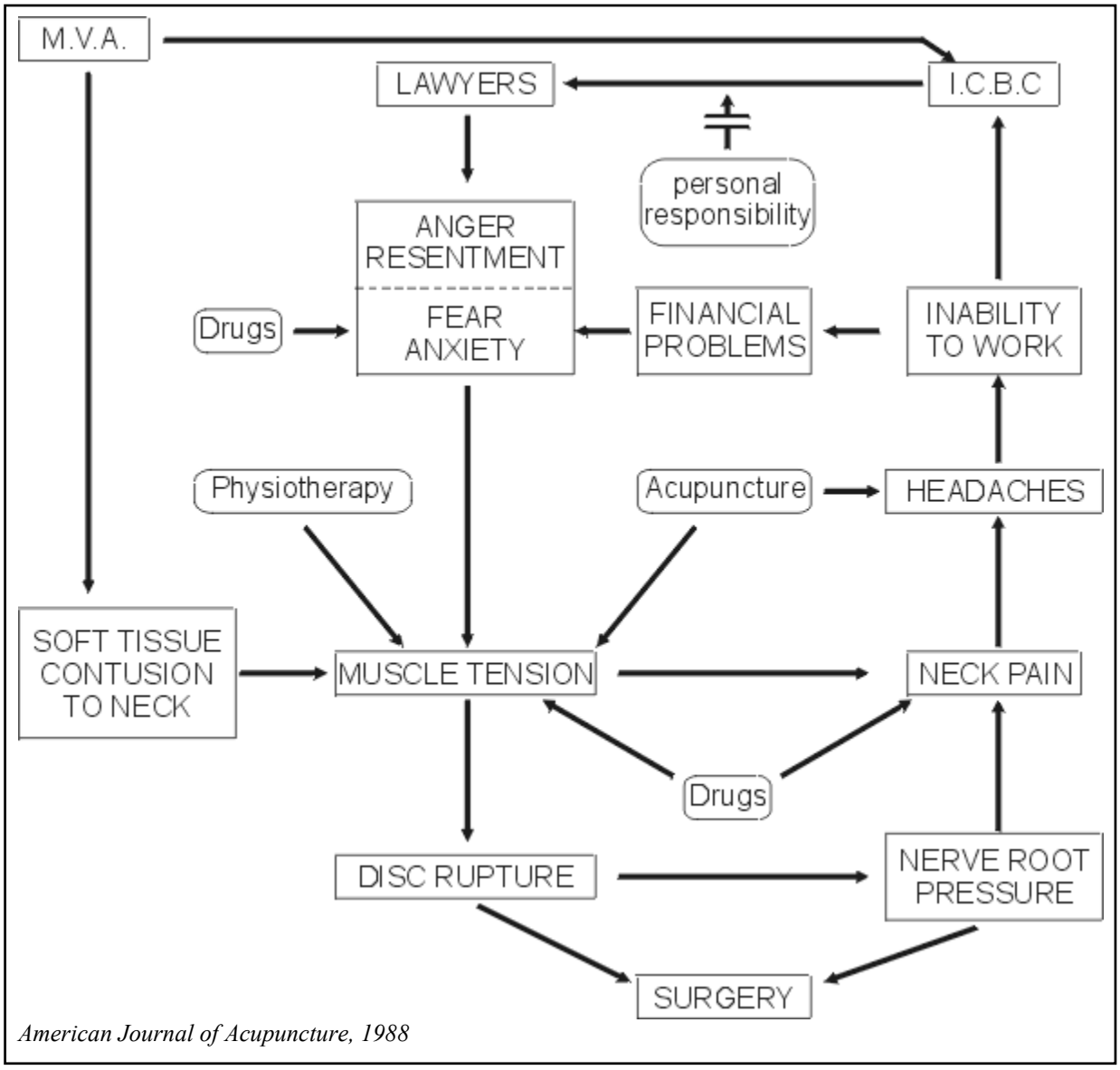

Figure 1: Energetic consequences of whiplash injury, showing places of therapeutic intervention

In chronic pain there is a clear association between tension patterns, emotions and the ongoing disability,[15] so that, in time, it becomes impossible to separate the cause from the effect. Thus the prolonged search for physical causes in chronic pain is self-defeating and may create the illness it is trying to resolve. Since conventional medicine spends much time and energy trying to establish a diagnosis, the customary approach may be part of the problem.

Acupuncture And Traditional Medicine

Traditional Chinese medicine is an alternative system of medicine, structured almost entirely around concepts of "feeling." In conventional medicine, if a patient feels tired, we look for a mechanistic cause such as a low haemoglobin level or a high blood sugar concentration to explain the symptom. Such an explanation leads to a rational diagnosis. If, as is often the case, no cause is found, conventional medicine is at a loss to provide any direction for healing. When this happens, physicians find they have little choice but to invalidate the patient's experience of

illness, since the alternative would be to invalidate themselves. Without a diagnosis, conventional medicine becomes helpless. In contrast, much of traditional Chinese medicine is based on how a patient feels. The overall "feeling" state is referred as the patient's "energy" state. If patients feel good, they have "high energy," if they feel tired, they have "low energy," and no further explanation is required. The concept of "energy," referred to as "Qi" (Ch'i), has no counterpart in conventional medicine. To argue whether or not Qi exists objectively, is to miss the point that Qi is experienced not observed. It is readily validated subjectively but not objectively.

Since transformational medicine is about subjective attitudinal shifts, traditional Chinese medicine may offer a better model to understand and explain what is happening in whiplash. The diagnostic criteria in traditional Chinese medicine refer to the different energetic states in individual patients; hence, it may be difficult for Western caregivers to understand the meaning of some common diagnostic categories of traditional Chinese medicine, such as, for example, the concept of "stagnant Qi", referred to later in this paper. Stagnant Qi is an energetic configuration in which a patient is unable to express some feeling or emotion. The physical tension induced to control that emotion can result in physical pain. Although there are many diagnostic criteria in traditional Chinese medicine, once one has grasped the concept of Qi ("energy"), these criteria can be understood.

Emotional Release, Myoclonic Shaking And Regression

When traditional Chinese medicine was used for the treatment of whiplash, we observed three phenomena, which directly linked the illness to blocked emotional charge. These were emotional release, myoclonic shaking and repression.[16] Emotional release is manifested in crying, laughing or the expression of some other emotion. Myoclonic shaking is vibratory muscular movements, which may mimic an epileptic attack. Regression is the renewed experience of a previous traumatic event, which may be the injury that precipitated the chronic pain syndrome. All these phenomena are common during a typical acupuncture or body-work session. We noted that the presence of any of these phenomena improved the prognosis for recovery. Indeed we often saw a dramatic reduction in perceived pain immediately after one of these experiences. Taken as a whole, these three could be conceptualized as the physical, emotional and mental expression of blocked feeling or ''energy." When these energetic phenomena occur patients undergo an experiential shift, which can be regarded as a healing crisis or "transformation" of the psyche.

Modern medicine lacks a therapeutic approach that allows patients to access blocked feeling directly. The standard practice of suppressing these states with tranquillizers and muscle relaxants may aggravate chronic pain by blocking the natural healing response. The healing process, which is meant to occur quite naturally, is frozen and cannot be activated. O'Regan has postulated that a specific healing system, which is lying dormant in chronic illness, must be activated.[17] Conceivably, the process of energy release unfreezes the body and reactivates this system. A new philosophical approach to illness would integrate conventional objective methods with unconventional subjective methods into a new holistic model. The transformational approach presented in this paper is an attempt to do this.

Transformational Medicine

Transformation refers specifically to a change in a patient's attitude to the illness, from one of hopelessness and despair to one of optimism and positive anticipation of recovery. In that sense, the shift is entirely subjective, and there may be no outward, objective signs of change in the

physical condition. Therefore, it may be difficult to demonstrate any observable change at the time of transformation by conventional methods of research.

It is difficult to conceive of meaningful research into the operations of subjectivity when conventional science demands objectivity as the only criterion of acceptability. However, because the experience of healing is entirely subjective, science may have cut itself off from the very discoveries it seeks.

The transformational approach to whiplash syndrome starts with this new philosophical model and offers a therapeutic program, which transcends the normal in-office doctor-patient relationship. At the outset this looks like a difficult task since, during the patient's long-term disability, the patient has had plenty of professional advice, which suggests that little can be done. But the problem becomes simpler when we show patients the relation between chronic pain and blocked energy, because this gives them a tool with which to pursue their own healing over time. The aim of transformational therapy is to provide a setting in which participants can begin to understand the paradoxical nature of their illness and, in so doing, discover the ability to secure their own healing. The approach must be both experiential and educational, because initially most patients are sceptical. Simply explaining the logic of an energetic approach does not win much acceptance. They must experience a shift in perspective before they can accept arguments that confirm the logic of the new point of view. In other words, experience must come before or, at least, at the same time as the explanation. Rational explanation of a differing perspective rarely has the power to shift pre-existing beliefs. Indeed, the rational approach, when used alone, usually meets with denial. Physicians then must use all their ingenuity to circumvent the denial in order to help the patients construct a new reality. In practice this can take a long time and may be a frustrating process. However, by accessing feeling directly, using acupuncture and body-work techniques, the patient gains enough direct experience of the inner healing system to be convinced of the validity of its existence.

The Transformed Attitude

The transformed perspective has a number of features that distinguish it and permit it to be compared to the standard perspective (Table 1).

Standard Perspective	**Transformed Perspective**
Illness has an external cause (e.g. MVA)	Patient is the root cause (i.e. accident is trigger)
Doctor has the power to affect treatment	Power to heal lies within the patient
Doctor has authority	Patient is the only authority
Patient is helpless	Patient is responsible for changing

Table 1. Comparison of the Standard Perspective and the Transformed Perspective

Before chronic whiplash patients can begin the healing process, they must understand and integrate the healing perspective into their personal reality. They must take full responsibility for the continuing tension patterns they have acquired and voluntarily discontinue the often-fruitless search for a structural cause. Without this specific shift in attitude, rehabilitation tends to be frustrating and ineffective. Furthermore, the whole concept of "treatment" has a built-in philosophical assumption that the patient is helpless. Thus, any form of "treatment" takes away the patient's sense of personal responsibility and unwittingly entrenches a perspective, which blocks healing.

Physicians who wish to participate in transformational medicine must fully understand and integrate these two perspectives in themselves before they can hope to pass on any information to others. They must experience a transformation; usually, this requires that they will have faced some unsolvable problem in their own lives. In one sense an opportunity to transform presents itself to physicians every day. As physicians, we are all faced with illnesses that have no discernible cause, that are clearly related more to the character of the individual patient than to any external agent. However, because we have not re-examined the assumptions we have carried forward from our training, we miss the opportunity to discover a fresh approach.

Patients And Methods

Patients were referred to the program by their family physicians or by the Insurance Corporation of British Columbia (ICBC). They were taken on a first-come, first-served basis, the only criteria being that 4 or more months had passed since the accident, and that they were not responding to standard treatment. In addition to their pain syndrome, 90% were unable ‘to work. The first 100 patients to fulfil these criteria were admitted to the program. The initial study design called for controls, but we found this impossible for ethical reasons. There were 76 women (mean age 42.3 years) and 24 men (mean age 36.6 years). The women had suffered from the whiplash syndrome for an average of 15.9 months since the accident (range from 4 to 50 months). The men have suffered from the syndrome an average of 19.5 months (range from 5 to 90 months).

REGIMEN: The 5-day in-residence program had two main objectives: to teach the patients how to recognize and resolve their tension patterns and to facilitate a transformational experience.

Before the program began, we assessed each patient. We completed a full Western and Chinese history and physical examination to achieve an East-West diagnostic perspective. Each patient had the following: identification of trigger points, measurement of range of motion (objective); Montreal pain questionnaire, visual analogue scoring, personal orientation inventory taken, patient assessment of the value of the program (patient subjective); collective opinion of the patient’s transformative potential (staff subjective).

Each day was structured as set forth in Table 2.

Modes Of Therapy

Relaxation

Learning to relax is fundamental to the healing perspective. This learning process can bring patients to their first confrontation with paradox. By definition, relaxation cannot be achieved by “trying,” because trying is the opposite of relaxation. Thus, any effort to achieve a relaxed state will result in failure. In Western society, the work ethic is strongly held. The idea that effort produces results almost never is questioned. It is small wonder then that patients try their hardest to get better when they are ill. The paradox is that effort produces muscular tension, which exacerbates the whiplash syndrome. Patients need to learn that, in order to get better, they must stop trying. Clearly, relaxation is both easy and not easy.

Time Period	Activity
08:00-08:30	Breakfast
08:30-09:00	Relaxation and stretching exercise
09:00-10:00	Lecture on relevant topic
10:00-12:00	Acupuncture, body work
12:00-12:30	Relaxation
12:30-13:30	Lunch
13:30-15:00	Lecture, bioenergetics
15:00-17:00	Biofeedback, counselling
17:00-17:30	Relaxation
18:00-19:00	Dinner
19:00-21:00	Group interaction

Table 2: Daily Program for Patients in In-Residence Program

Biofeedback

We used muscle tension and temperature feedback. Muscle-tension sensors were placed on the posterior cervical muscles so that patients could find the neck posture that corresponded to the least amount of tension. Many patients found that they held their necks thrust slightly forward in a position that exacerbated their tension. It is important for these patients to learn a more relaxed posture. Temperature sensors were placed on fingers or toes so that patients could learn the state of mind conducive to warming their hands and feet. Many patients with chronic pain have peripheral vascular tension with resultant cold extremities. It is essential for these patients to learn how to relax the vascular system.

Lectures

The patients received didactic lectures on relevant topics to satisfy the intellect concerning the rationality of transformation. Experience alone is not enough, because the intellect will negate experience if there is no understanding. We found a variety of topics to be worthwhile: quantam mechanics, the biochemical model, the nature of paradox, personality and illness, the nature of stress, the theoretical foundation of Chinese medicine, chronic pain theory, limitations of Western medicine, structural and functional disease, the nature of intuitive learning, systems theory and catastrophe theory. These topics were not fixed in stone and were varied according to individual needs.

Acupuncture

We used traditional Chinese acupuncture in a modified group setting and combined it with limited bodywork. Patients were treated in pairs, each person having a "buddy" for the week. The four-needle technique was used, based on Chinese pulse diagnosis as described by Felix Mann;[18] when time allowed, this was followed by local points in the neck. The aim of treatment was to "move the stagnant Qi," that is, facilitate the release of blocked energy. When acupuncture alone did not produce "an experience," we added hyperventilation to encourage the intellect to "stand aside" and allow the body to release its tension.

A consistent finding in our study was the subjective experience of reduced pain following treatment by acupuncture and bodywork. When it occurred, it usually was easy to reinforce the idea that the illness was generated by an energetic imbalance and was not due to any fixed

"structural problem." Thus, in this study, acupuncture was the primary tool used to initiate the transformational process, but it is only one of the many possible tools.

Stretch And Spray

Following the work of Travell and Simons,[19] it has become a standard physiotherapy technique to treat myofascial trigger points with cold spray and manual stretching. We adapted the technique slightly and, in addition to its customary application, used it as a teaching modality. We encouraged patients "to go into their pain" during the stretch and we found that emotions often accompanied the physical release of a tight muscle. When patients realize that release of emotion is followed by improved mobility, they begin to accept that the pain is not due to structural causes.

Counselling

We provided one-on-one counselling on a daily basis to support patients while they were engaged in the turmoil of the transformational process. For patients who found extra difficulty in mastering energetic release, it was their only avenue for emotional relief.

Group Interactions

Every evening the group met for 2 hours after dinner. In this informal "get-together" problems were ironed out, topics of interest covered and patients got to know each other and shared their experiences. Over the week the group developed a cohesiveness, a collective consciousness that was in itself transformational. As the experience of separateness diminished, the collective experience increased. An important aspect of the transformational experience is the direct cognition of interconnectedness; group interaction gradually produces that experience. Many patients begin long-term friendships through the process. People with the same illness find it beneficial to get together and share their common frustrations. Many participants commented that they felt "understood" for the first time.

Case Reports

The two case studies that follow show how the experience of acupuncture can catalyze the transformational process.

Case 1

A 22-year-old woman was involved in motor-vehicle accidents in August 1985 and June 1986. She was treated with physiotherapy but was still suffering from whiplash syndrome 43 months later.

The patient's main complaints were headaches, neck stiffness, jaw pain and upper back pain. She appeared sullen and angry, expressing a deep-seated distaste for life. She had given up any hope of recovery.

Treatment was aimed at moving the stagnant Qi, and with the insertion of the first needle, she began myoclonic movements. Later she began sexual pelvic movements which resulted in orgasm. Further sessions started in the same way, then progressed to full body shaking with her shoulders and arms being involved as well. In addition she began screaming, and it was clear that she was experiencing a regression in which she was sexually abused. Later she confirmed this was the case. During the final session, she was encouraged to go fully into her fear and hold on

to her power; to turn and face the "ghost," so to speak. This she did, with a most remarkable expression of power accompanied by movement of energy into her hands, which she beat on the mattress in a demonstration of her indignation. At the end of the program she was entirely different. Her depression had lifted and she was completely pain-free. This change was maintained at 4-month and 1-year follow-up.

Case 2

A 32-year-old man was involved in a motor-vehicle accident in June 1988. He suffered whiplash, which was treated by physiotherapy and chiropractic. He was taking Tylenol no. 3 for pain. When seen 5 months after the injury he complained that he had suffered headaches, neck pain and increasing numbness in his arms and legs since the accident. Worse still was an increasing impotence that was destructive to his marriage. He had tried to return to work on two occasions without success. Acupuncture with hyperventilation was used daily for 5 days, and treatment was aimed at moving the stagnant Qi and blood.

From the first session he began myoclonic shaking that involved both arms and legs. After the second session, the shaking continued right through the following 24 hours and into the third session. He was amazed at the powerful feelings he was having and described the energy going through him as a "spiritual" experience. The third session was quite dramatic. He was already in myoclonic shaking at the start of the treatment. Breathing became uneven, and then he started raging, screaming and tearing at a towel that he was given to twist. After a while the shaking seemed to subside and he held his hands up pointing at each other so he could feel the energy passing between them. Quite suddenly there was an audible "clap," and a pink spark arched across the gap between his fingers. Subsequently this patient described an internal experience, which coincided with the external spark. He saw himself as a little boy trapped inside an egg-shaped casing. At the time he was raging, he was beating at the casing trying to free the little boy. Finally, at the time of the spark, the casing broke and the little boy was freed.

The experience of inner release was so profound that we feel sure the course of his life has been altered. He confirmed that he felt entirely different and resolved to go home and make major changes in his work and relationships. At the end of the program he had very little pain, but his healing process had only begun.

This man was not pain free or working at 4 months after the conclusion of the program, and therefore, was included in our results as a treatment failure. However, he probably gained more than most from the program and is now in retraining. His case highlights the problem of trying to measure objectively the results of a process that, by its nature, is subjective.

Results

Table 3 shows the results in our first 100 patients. Like other studies our female-to-male ratio was 3:1. There were, however, other striking sex-related differences. None of the men were pain-free and only 42% were working at the 4-month follow-up. There were no statistical differences between any of the initial assessment parameters although the men were marginally younger (36.6 v. 42.3 years) and had suffered from the whiplash syndrome slightly longer than women (19.5 v. 15.9 months). Table 4 gives the assessment scores for three of the assessment methods - the Montreal pain questionnaire, visual analogue scoring and trigger-point pattern - before the start of the program, immediately after and at follow-up.

Discussion

If tranformational therapy is effective, its results should compare favourably with those of existing medical treatments. The Washington Labour and Industries Board uses the following criterion for funding chronic pain programs: a program is considered cost effective if approximately 50% of patients going through a program are back at work or in a training program at 6 months from the time of injury.[20] Although ours was not a controlled study, our results are considerably better than those achieved by standard rehabilitation techniques.

This paper is not so much about the specific results of the program as about the process of achieving activation of the healing system through transformation. As noted in the case studies, we encounter a major conceptual block if we try to apply objective measurements to assessing the value of attitudinal shifts. The changes produced by the shift are hidden from objective testing even though their effects on the patient's psyche can be profound. We have seen shifts translate into a more productive life over time, even if this did not necessarily mean a return to previous employment. Indeed, the shift was more likely to be the prelude to a major change in life direction, thus precluding return to an old job. Therefore it is difficult to justify the determination of results based on the percentage returning to work. Even so, we achieved a 68% rate of return to work overall at 4 months (ranging from 41 % for men to 76% for women).

The objective parameters used to measure outcome were uniformly unhelpful in judging prognosis. Although we measured changes in pain scores, trigger points, neck mobility, thermograms and personality inventories, none had as much predictive value as a simple subjective measurement we nearly overlooked. Everyone was asked to evaluate the program at the time they returned home. Later when we correlated these assessments it was clear that those who rated the program highly had a better prognosis than those who did not. Such a simple estimate of prognosis will be acceptable only if we are willing to move away from the sacredness of objectivity.

It may be more challenging to look at the failures rather than the successes of the program. One criterion for failure is that the patient is still in pain at the 4-month follow-up. This is questionable because the presence of pain does not rule out the presence of an attitudinal shift. Another problem was that some patients failed to appreciate or acquire the healing perspective even after being immersed in the process for a week. We must try to determine why patients, who have been in pain for so long, are not able to acquire the healing perspective even after an intensive program.

The answer to this question is probably multifaceted, but we achieved some consensus after seeing many patients. Accident-related factors, such as the duration and severity of the injury, did not seem as important as some of the following criteria.

Age Those likely to do well seem to be the patients whose chronic pain coincided with a mid-life crisis. The young had too little life experience, and the old were often too fixed to change their beliefs. The only two patients who did not complete the program were under 20 years of age.

Gender Women did considerably better than men. Women not only found it easier to allow emotional expression, but they also had more ability to affect subsequent change in their lives. On the whole, men were more rigid and often had greater personal investment in their work. As a result they had greater difficulty

implementing change.

Rigid beliefs Acquiring the healing perspective may challenge lifelong religious beliefs. Clearly, this was too much for some patients whose beliefs were so rigid that they could not countenance change.

Support Some patients found that, after returning home, they were pressured to revert to old behaviours.

They found it difficult to maintain the transformed perspective in the face of a sceptical environment, especially without a rehabilitation program. We contend that all patients suffering from chronic pain will benefit from a rehabilitation program following a transformational experience. The healing perspective so acquired would enable them to gain maximum benefit from rehabilitation. Paradoxically, many of our longer-term patients came to us after rehabilitation had failed; in effect the system was putting the cart before the horse. This was particularly important for men, because one of the major reasons why they did poorly was the absence of rehabilitation.

The essential point of this paper is that chronic pain challenges the physician to move out of the objective "scientific" mode and to incorporate new philosophies and ideas into the approach to patients. To continue to base medicine on entirely objective criteria is to ignore the realities and discoveries of science over the last 60 years since Einstein. Illness is an entirely subjective experience and human beings cannot be treated like machines that have broken parts. When we treat diseases as if they were separate from the people who have them, we invoke profound negative repercussions in the psyche, which fester unseen and unrecognized. The solution becomes the problem and, because we deny the reality of subjective experience, we are blind to the results of this approach. At the end of the day, rather than accept our own limitations, we invalidate the patient's experience.

Often transformational therapy is balm for both patient and physician, both suffer from a limitation of perspective concerning illness and healing. We hope this paper has suggested how this transformation can be achieved.

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