

THE EFFECT OF CORE ENERGETICS ON STRESS LEVELS AND IMMUNE FUNCTIONING OF HIV POSITIVE INDIVIDUALS

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Introduction

That called body is a portion of soul discerned by the five senses.

William Blake

Recent studies exploring the complicated relationship between psychosocial stress, immunologic functioning, and various disease states have indicated that stress generated by personality factors and coping methods may be co-factors in disease susceptibility, progression and prognosis (Achterberg, Lawlis, Simonton & Mathews-Simonton, 1977; Sklar, Anisman, 1981; Sklar, Bruto, Anis- man, 1981).

That the link between mental state and immune functioning may also be operative in Acquired Immune Deficiency Syndrome (AIDS) has been suggested (Coates, Temoshok & Mandel, 1984; Temoshok, 1987; Moulton, Sweet, Temoshok, Mandel, 1987; Zich, Temoshok, 1987; Laperriere, Schneiderman, Antoni, Fletcher, in press), but much work remains to be done to establish this fact. Furthermore, methodological problems abound in determining this kind of question. These difficulties arise because of the innumerable "bidirectional multifactorial" interactions (Temoshok, Solomon, 1987, p. 287) involved in the immune response, consisting of interdependencies between psychosocial factors (PF), the Central Nervous System (CNS), the Endocrine System (ENS), and the Immune System (IS), to name but a few, and between these interfacing systems and a given antigen, such as HIV.

Nevertheless, this kind of "psychosocial research" is extremely important since no vaccine has been found for AIDS and, due to the molecular composition of the virus protein sheath (Hall, 1988), one is unlikely to be found in the foreseeable future. Because the latency period of AIDS (known as HIV disease or AIDS Related Complex [ARC]) is so variable, ranging anywhere from one to fifteen years in duration, and psychosocial factors, difficult to quantify variables, and perhaps other intangibles are implicated in the pathogenesis of AIDS, this kind of research is urgent.

In the current study we have operated on the premise that one of these "difficult to quantify" variables may be that which Wilhelm Reich isolated as bioenergy, or Orgone, during his studies of the Cancer Biopathy. Reich was the first in the Western medical tradition to attempt to prove that an organism's ability to defend itself against cancer and other diseases is dependent upon the presence of an optimal, bioenergetic pulsation throughout the system. An operationalized concept of energy (chi and prana) has of course been fundamental to Chinese and Ayurvedic medical practice for thousands of years, but it was only with Reich's research that this notion began to be applied in the West.

Psychosomatic Medicine and Reich

According to psychosomatic research, we live in a society which assails us with demands which often exceed our ability to successfully respond. Additionally, we suffer from various characterological patterns which in certain cases render us unable to adapt in a healthy way to the exigencies of life. The compromise formations by which Freud defined neurosis are, according to Franz Alexander (1950), very often detrimental solutions. This is because insofar as many people have had to repress their drive derivatives and aggressive and libidinal wishes and impulses in order to accommodate societal and ego demands, their spontaneous emotional functioning may be sacrificed, rendering them more vulnerable to disease.

Whenever the expression of competitive, aggressive and hostile attitudes are inhibited in voluntary behavior, the sympathetic adrenal system is in sustained excitation. The vegetative symptoms result from the sustained sympathetic excitation which persists

because no consummation of the fight or flight reaction takes place (Alexander, 1950, p. 66).

Alexander studied the relationship of psychological factors to seven "psychosomatic diseases": hyperthyroidism, regional enteritis, ulcerative colitis, peptic ulcers, bronchial asthma, rheumatoid arthritis, and hypertension. Plaut and Friedman point out that if one accepts the idea that diseases are etiologically multifactorial, then the differentiation between "psychosomatic diseases and other diseases becomes meaningless" (1981, p. 3).

Wilhelm Reich was one of the leading proponents of a psychosomatic view of health and disease in this century. His research on the relationship of blocked energy due to characterological armoring and disease states was groundbreaking, if extremely controversial. At the end of his career he did much research on cancer and, based on his findings, introduced the term "biopathy." This was the name he ascribed to any "illness which had been produced by a chronic disturbance in biological pulsation" (Boedella, 1973, p. 194). While this view of cancer causation was "monoetiologic" in the opposite extreme of the germ theory – overemphasizing, as it did, the psychological component – it introduced and attempted to rationalize a new and important way of understanding illness, one that ran contrary to the biomedical orientation of traditional allopathic medicine. It was in order to counteract the negative physiological and psychological effects of this disturbed pulsation that Reich developed a system of techniques and theoretical constructs called Character Analysis which enabled therapists to facilitate patients in accessing and venting deep and often repressed emotion, and building the body's energy charge.

Reich's theories were built on the foundation of Freud's early drive/structure model of the psyche/soma. In 1894 Freud formulated the process of "conversion in *Hysteria* (p. 62), and in so doing he postulated the existence of "psychic energy," or "...something which is capable of increase, decrease, displacement and discharge" (1894, p. 75). "In hysteria the unbearable idea is rendered innocuous by the quantity of excitation attached to it being transmuted into some bodily form of expression" (pp. 63-64). The cure for hysteria was said to require emotional catharsis. This "method achieves its results by deliberately effecting such a transmutation

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of the excitation from the somatic field into the mental field by a process of thought and a discharge of excitation through speech" (p. 75). This became the rationale behind the "talking cure."

Reich's concept of energy is an extension of what Freud called "psychic energy." While Freud discarded this notion for the most part, Reich embraced it and dedicated his life to understanding how this bioenergy, or what he later called orgone, manifested itself into not only mental health and illness, but into physical health and disease as well. Reich grew to see human beings as a "functional unity" in which psyche and soma were not separate (Reich, 1942).

In developing Character Analysis Reich observed that: "A memory is not nearly as capable of achieving the emotional outbreak, for example, as the loosening of a block in the diaphragm... childhood experience is capable of having an 'effect from the past' only in so far as it is anchored in a rigid armor which continues to operate in the present" (1933).

Reich saw all character formation as formed by the collision between the "natural impulses of the child and the frustrations imposed on them by a repressive upbringing" (Boedella, 1973). He delineated various character structures which he demonstrated to be defensive psychosomatic postures devised for the purpose of self preservation. These were initially adaptive structures, and as such were useful for dealing with impositions relating to inadequate or repressive parenting. In the face of prolonged stress and trauma, however, these postures became solidified and hardened into muscular and cognitive patterns which Reich called "armoring" (1980, p. 155).

Reich postulated that the character defense structures and their accompanying muscular rigidity are a causal factor in all forms of mental illness, and many physical illnesses as well, because they interfere with the natural flow of pulsation in the body. Stanley Keleman describes pulsation as the bodily process which is involved in the production and often convulsive expression of laughter, grief, and anger. Its main characteristic is vitality and excitation, and may appear in feelings of wellbeing and relaxation as well. "For pulsation to travel throughout the body in waves from head to foot, there must be clear organization" (1985, p. 17). When emotional stress is prolonged it interferes with this organization.

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The body becomes "rigid and elongated, dense and compressed, swollen and stuffed, or collapsed and weak...Under these conditions the tissue no longer supports waves of pulsation..." (p. 17) Reich observed that a healthy organism will oscillate between the two poles of contraction and expansion, which are grosser manifestations of pulsation. These movements are governed by the sympathetic nervous system and the parasympathetic nervous system respectively. By studying the human orgasm he found that this oscillation is a pervasive pattern in nature which he called the "orgasm formula." He added that it "could also be called the life formula" (1942, p. 286). This is the process by which all living organisms are able to maintain optimal functioning through a fourfold process:

mechanical tension -* electrical charge -* electrical discharge -*
mechanical relaxation (1942, p. 286)

In the human being this occurs in the sexual orgasm; it also occurs in the pressure, build-up and release of anger, in sadness and laughter, and in the process of respiration. On a cellular level it is constantly taking place in the body as cells regenerate through the process of mitosis. The full expression of this pattern manifests on a psychic level as pleasure and unpleasure. On the level of instincts, expansion is experienced as sexual excitation while contraction is felt as anxiety. In the sphere of the autonomic nervous system, expansion is connected to parasympathetic functioning or dilation, and contraction is related to the sympathetic processes or constriction (p. 289).

When this sequence of events is interfered with because of inadequate caretaking during early developmental phases, it can lead to chronically held musculature and rigidity in the organism. This might happen if a child is forced to toilet train before sphincter control is developed. In this instance, he will be forced to control elimination by tightening the muscles of the pelvic floor, buttocks and thighs, and even by holding his breath (Baker, 1967). Under such conditions, energy is not permitted to pulsate and flow throughout the system, and disease can ensue.

To address this problem, Reich, Alexander Lowen (co-founder of Bioenergetics), and John Pierrakos (co-founder of Bioenergetics and founder of Core Energetics) devised ingenious techniques for dissolving the body armor. These methods include message, deep

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breathing, eye exercises, facial and head movements, work with the gag reflex, maintaining stress positions until spontaneous pulsations begin, active energy mobilization such as punching, overhead hitting, stamping or kicking the feet, and reaching out. These processes must always be accompanied by verbally based character analysis, for the two are "functionally identical." "Character attitudes can be dissolved by the overcoming of muscular armorings, just as muscular attitudes can be dissolved through the dissolving of character attitudes" (Reich, 1942, pp. 329-330). The important point is that these methods reverse the tendency toward contraction of the orgasm brought on by chronic activation of the sympathetic nervous system. When this occurs, the body's capacity to sustain and discharge "energy" is restored.

The process by which Reichian therapy might favorably influence stress levels and immune functioning can be postulated according to a number of effects observed in Core Energetic psychotherapy. This work has been shown to facilitate profound states of relaxation through emotional release on the one hand and activation of the respiratory and cardiovascular systems on the other hand, and can therefore be presumed to cause stress reduction which has been correlated with immune enhancement.

Several behavioral studies have been completed, or are presently underway at Miami University, which suggest that other interventions which induce these same effects may be very beneficial for both normal and HIV positive individuals. In one of these studies the relationship between immune parameters and coping capacity and/or mood state in an HIV high risk group was examined (Ironson et al., 1989). Blood was monitored to determine immune functioning at six time intervals over a three-month period. Mood profiles, as measured by the POMS, were also obtained at several of these points. At the five-week point, participants were diagnosed as to their HIV status. Some interesting correlations emerged among the subjects who were HIV positive. The discharge of emotion, for instance, was related to immune enhancement time point five ("r = .62 to the number of monocytes [M02], at T6 r = .62 with response to mitogen phytohemaggluten [PHA], at T6 r = .53 with response to pokeweed [PWM]""). Expression of negative emotion—anger in particular—was also significantly correlated with improved immune functioning.

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Another experimental study, by members of the same team, explored the effects of aerobic exercise on high risk persons with and without HIV disease, as compared to a matched control group. Twenty-three rigorously screened, non-symptomatic men underwent three forty-five minute bicycle ergometer sessions three times a week for ten days. Fitness evaluations were administered in conjunction with immunologic and psychological measurements. A check list was used to eliminate various confounding factors, such as additional exercise and lack of sleep. At a certain point the control group and the study group received diagnoses of HIV status. Results indicated that positive psychological and physiological benefits resulted for men from the exercise group, whether they were HIV positive or not. Registered immunologic changes included significant increases in several T-lymphocyte populations among both groups. T4 cells among HIV positive individuals climbed from 905 to 1020 cpm as measured before and after the study period.

Baggett *et al.* (1989) investigated the effects of a relaxation program on psychosocial and immune functioning among individuals considered at high risk for HIV infection. They introduced their group to a ten-week relaxation protocol involving alternating interventions of cognitive-behavioral stress management and AIDS education, and muscle relaxation training (PMR). All participants were questioned weekly as to the number of times they performed the relaxation exercises. The subjects received a diagnosis at the midpoint, week five, after which they were tested for state anxiety and immune functioning. The findings were that the exercise group, both seropositive and seronegative, exhibited a significant negative correlation between the number of times relaxation was practiced and levels of anxiety ($r = .61$, $p .05$), relative to the control group. Additionally, low anxiety scores were correlated with improvements in T4/T8 ratios (Lapperierre, unpublished).

The present study was designed to address the validity of this idea. We sought to determine whether by increasing energy pulsation in the bodies of a group of HIV positive individuals we might demonstrate a correlation between our intervention and "positive" alterations in the subjects' immune functioning. Toward the end, we studied the effect of Neo-Reichian Core Energetic

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group psychotherapy on the psychosocial and immunologic status of HIV positive individuals. We wished to discover whether through the partial dissolving of "blocks" to the flow of bioenergy, we might find that bioenergetic functioning is indeed associated with immunomodulation, and can therefore be considered a cofactor in the onset and/or prognosis of HIV disease.

Methodology

This study was a single-subject design with repeated measures taken at three time points. Our hypothesis was one of difference across time. By administering our intervention to eight HIV seropositive individuals and comparing the results to subjects' baselines, we attempted to establish that there would be significant "positive" change in immune functioning and stress levels over the course of sixteen weeks. A caveat is in order here. The notion of medically significant improvements in immune functioning is meaningless "unless convincing disease or health outcome data is available" (Borysenko, 1987), which given the short term nature of our study was not obtainable. While disease outcome data would be invaluable in a study such as this, it is extremely difficult to collect without massive funding. In any case, the influences which affect immunomodulation are so shrouded in mystery at this time that statements such as the above are themselves "meaningless."

No pre-intervention baselines were established, due to the fact that the study was initially a quasi-experimental, two group design for which baseline data are not necessary. The change from a two-group experimental design to a single-subject design was precipitated by an initial drop-out rate of almost 50 percent. The small size of the remaining study group (eight subjects) would have required differences of extremely unlikely magnitude to be significant. As a solution, we used the study groups' T1 measurements as baseline data.

Our means of quantitatively assessing individuals involved an elaborate, open-ended psychosocial questionnaire and medical intake, as well as photographs to record individual character structures (see Literature Review), two standardized psychodiagnostic inventories (the POI and the POMS), and laboratory serology

tests. The latter were used to record blood chemistry changes that are considered indicative of immune functioning.

Selection

It is important to note that the selection process of our study group was based on non-probability sampling. In other words, no attempt was made to select subjects by virtue of their representing any specific population parameters, e.g., characteristics such as gender, sexual preference, I.V. drug use, or ethnicity. This would not have been possible because we were studying HIV infected individuals according to their availability within a specific institutional setting, CHP/BS.

We did, nevertheless, end up with a predominantly gay sample group because the catchment area of CHP/BS is in part the gay community of Manhattan's Lower West Side. This, of course, jeopardizes external validity, since it limits the generalizations we can make from findings which are derived from a non-representative segment of the AIDS population. It may be argued, however, that for the intervention which we introduced to have been effective, a high level of self-awareness and self-directedness among participants was necessary, and these features may have been better represented by our predominantly college educated, non-addicted, homosexual sample group than they would have been by a group of intravenous drug users.

The inclusion criteria were: 1) HIV seropositive; 2) motivation; 3) symptomatic. The exclusion criteria were: 1) no psychosis; 2) no HIV dementia; 3) no other treatment(s) or therapies during the study period.

Interventions

Our intervention consisted of Core Energetics, a pre-structured journal writing program, and the Nada Brahma Meditation. Multiple technique interventions such as this are vulnerable to validity problems arising out of "interaction effects" (Jayaratne, 1979) between treatment modalities. However, we felt that the combined effect of our three interventions would form a complementary dynamic. Nevertheless, the bulk of our sixteen, three hour interventions consisted of Core Energetics. Due to the overall time

constraint, the meditation was used on only two occasions. The journal program was used intermittently as a process tool primarily, and began to be phased out toward the end of the sixteen weeks.

Since this article is mainly concerned with the usefulness of Core Energetics as an "alternative" therapy for HIV + patients, I shall focus on that aspect of our intervention exclusively, and leave to one side the question of the influence of the other two aspects of our independent variable. Let me merely say that the Nada Brahma meditation could probably be replaced by any technique designed to elicit the "relaxation response" (Benson, 1974, p. 117), and is recommended in order to balance the often enormous charge which Core Energetics is capable of generating. I might also add that the journal program which we used was Ira Progoff's Intensive Journal Method (Progoff, 1975). It was quite helpful in providing an archetypal framework around which the participants could organize their internal experience of HIV and of the intervention which we provided.

The Core Energetic exercises which we used were numerous. They were used every other week at first, and then every week during the last quarter. They were also used for warming up before journal writing sessions. The techniques we used were learned through the Institute of Core Energetics training program in New York City. (For written descriptions of most of the exercises, see Lowen's book *The Way to Vibrant Health*, 1977). We gave the following instructions:

1. Grounding

(This was used at the beginning of the sessions, just after the forty-five minute "check in" period, and was accompanied by some hands on deep muscle work in the legs and back. It is a technique designed to produce pulsation in the legs.)

Stand with your knees slightly bent and toes turned slightly in. Be in contact with your breath. Slowly drop down starting with your head, vertebrae by vertebrae, until your head is dangling, and the fingers of both hands are touching the floor. All the weight should be on the balls and heels of the feet, not the hands, and you should feel a stretch in your buttocks and hamstrings. Continue your awareness of breathing as you gently pulse the knees up and down, holding each extended position for approximately one

minute, feeling the vibration begin to build. Do not straighten or lock the legs. If you don't feel the vibrations, then continue to pulse up and down or hold the extension for a longer period, and continue to breathe. Keep your jaw loose, and let sounds out whenever necessary. (This can also be done on one leg at a time, using the hands to balance.)

2. *The bow*

(This was used directly after grounding, and is designed to create pulsation in the upper body, pelvis and legs, as well as to stretch the front of the torso.)

Stand with your feet shoulder width apart, slightly pigeon toed, and your knees bent. Placing your fists in the small of your back, stretch backwards until your back becomes arched. Keep your head and eyes focused forward, not on the ceiling, so as to keep the breath and voice channel open. You will feel a good deal of stress on your legs and abdomen muscles, and will be inclined to cut off your breath with the exertion; don't do this; keep breathing. The exercise will help you to breathe more fully, and will release much tension in your belly and legs.

3. *Over the roller*

(This exercise requires an approximately 24 inch diameter upholstered barrel and is designed to open up the thoracic segment and increase respiration.)

Start by sitting on the floor in front of the barrel. Place your feet on the floor so that your knees are bent and your back rests against the barrel. Slowly roll backwards, using your feet to control the motion and your hands, clasped behind your head, to support your head and neck. Feel the expansion in your chest and diaphragm. Make sure your feet remain in contact with the ground while you continue to breathe fully. Come back to a sitting position when the stretch becomes too much.

A variation on this which was introduced to several individuals who had especially constricted chests involved three to five deep sucking breaths through the nose in order to expand the chest and diaphragm. The exercise was performed in the stretched position while over the barrel. The participant was asked to hold this

inhalation to the count of three. This was followed by a complete exhalation while rolling back down to a point where the barrel rested on the shoulders and the body remained supported by the legs. This position was held until spontaneous inhalation occurred and the cycle as repeated.

4. *Reclining leg vibration*

Lying on your back, raise your legs in the air above your midsection with the knees slightly bent. Holding your ankles or your toes, depending on your flexibility, press your heels toward the ceiling, continuing to breathe into the abdomen and pelvis. Notice how your legs begin to vibrate spontaneously. Make sure you continue to breath fully. Do this for a short time and be sensitive to any strain in the lower back. (A thin pillow under the buttocks may help in this regard.)

5. *The breathing wave*

(This exercise helps one to experience the natural motion of breathing by exaggerating the body's involvement, and to reconnect the breath with the pelvis.)

Lie on the floor with your knees up and your feet flat on the ground. Breathe naturally and notice the unforced, delicate rhythm. Now gradually begin to breathe more deeply. Does the breathing feel free and easy? If not, notice the places where there is constriction, where it may be difficult for the breath to expand into. Begin to gently rock the pelvis forward for expiration and backward on the inhalation, making sure the back remains on the floor. When this motion becomes coordinated, begin to combine the legs and arms, so that the knees part slightly and the arms roll outward with the palms up on the exhale, and the knees come together with the palms down on the inhale.

6. *Running with vocalization*

(This technique was first a way of increasing respiration and heart rate; second, a method of discharging aggression; and third, a way of achieving spontaneity. When participants seemed to need a more focused means of channeling their aggression, we gave

them a bataca and suggested some over-head hitting, as described below)

Form a circle and begin to walk around the outside of the room in single file. Increase the speed gradually until you are running. Feel your feet strike the ground as you run. Begin to involve your arms as well. Strike at the air with your fists. As you strike, let sounds out of your belly. Make any sounds or any movements that spontaneously arise.

7. *Jumping in place*

(This exercise helped increase respiratory and heart rates, and also increased grounding.)

Jump up and down with both legs and arms swinging. Reach for the ceiling. Jump as high as you possibly can. Do this for a while, until you are out of breath. Stop and notice how your breathing is naturally expansive.

8. *Overhead hitting*

(This is a very useful technique for accessing and discharging anger and can be helpful in breaking through denial.)

Stand in the grounding position with your feet approximately twelve inches apart and your knees bent. Holding the bataca (a stuffed bat) over your head, begin to hit the pillow in a wood cutting fashion, straight over your head rather than to one side. Allow the back and pelvis to become involved in this striking motion, while making sure that the feet remain firmly on the ground and the knees bent. Makes sounds, or find the words, the "no," etc., which accompanies the motion. Do not cut off at the throat.

(The therapist is especially important in this exercise to help facilitate expression, to provide eye contact, and to be there when, as often happens, deep feelings of rage or grief, or a desire to collapse ensues.)

9. *Punching*

(This exercise activates effects similar to the above technique.)

Standing in opposing lines, make eye contact with the person opposite you, and begin to punch the air. Let out the dangerous animal in you. Make sounds, any sounds that come to you. Make the face of the monster that is in you.

10. *Resonance circle*

(This was often used as a closure exercise.)

Form a very close, standing circle so that everyone is facing the back of the person in front of him. Begin by massaging the shoulders in front of you. Let yourself take in and enjoy the message you are receiving from behind, even as you message the person before you. Now place your right hand on the forehead of the person in front of you. Support his head. Now place your hand on his heart. Feel the rise and fall of his breath. Feel the hand from behind resting on your own heart. Let yourself be open to that warmth and tenderness. After a time, place your hand on the belly of the person in front of you, and again be sensitive to the sensations that arise. Now rest your head on the shoulder in front of you. Breathe. Let yourself be supported. Know that you are able to support and be supported by other human beings.

Findings

The following will consist of a summary of findings, and some possible explanations for the results that were recorded. This will be followed by a conclusion which will briefly discuss treatment implications for mental health professionals working with this population.

As stated in the Introduction, the intent of this study was to determine whether the enhancement of bioenergetic functioning among HIV positive subjects, brought about by the introduction of Core Energetic group psychotherapy, could be correlated with a reduction in stress levels and/or positive alterations in immune parameters. The findings did not support this hypothesis. While the qualitative findings suggested that our intervention had a

generally positive effect on the global functioning of five of the eight subjects, the quantitative findings—both the psychosocial factors and the immunologic factors—did not show consistent or significant positive alterations. Furthermore, there was no hard evidence that the positive effects which we observed were the result of over-all increase in bioenergetic functioning. A case could be made that the health benefits we saw were caused by random fluctuation in immune functioning. It is also possible that the aerobic aspects of the intervention stimulated endorphin production, which has been indicated as a stress reducing and immune enhancing substance. However, the fact that exercise affects endorphins in the short term and that the blood was never drawn in the same day as the intervention should persuade us from this conclusion.

No significant changes occurred in stress levels as measured by the POMS. All scores fell within two standard deviation units above or below the mean T score of 50. In other words, the subjects' scores registered somewhere in the normal range between 30 and 70, within which approximately 95 percent of the population falls. Stress levels as recorded by the POI were similar to the POMS scores, and showed no significant improvement or deterioration. Correspondingly, no quantifiable, long term changes occurred in body armoring as measured by the photographs before and after. (This is understandable considering that our intervention was not time intensive enough.) However, there were qualitative changes which both leaders noticed in many of the subjects energy levels and stress levels.

The fact that stress scores fell within the normal range for all subjects during the sixteen weeks was a surprising finding considering the stress that a life threatening illness such as AIDS might be expected to generate. When this presumed initial stress is exacerbated by the plague mentality associated with HIV disease and AIDS, baseline psychosocial stress readings might be expected to be extremely high. In this case they were not. This could be explained in a number of ways, all of which would require lengthy discussion. However, since there were no significant PF declines, and given that the focus of this article is on the health benefits of Core Energetics, we will examine the subjects' immune functioning (Figure 1) rather than their psychosocial stress.

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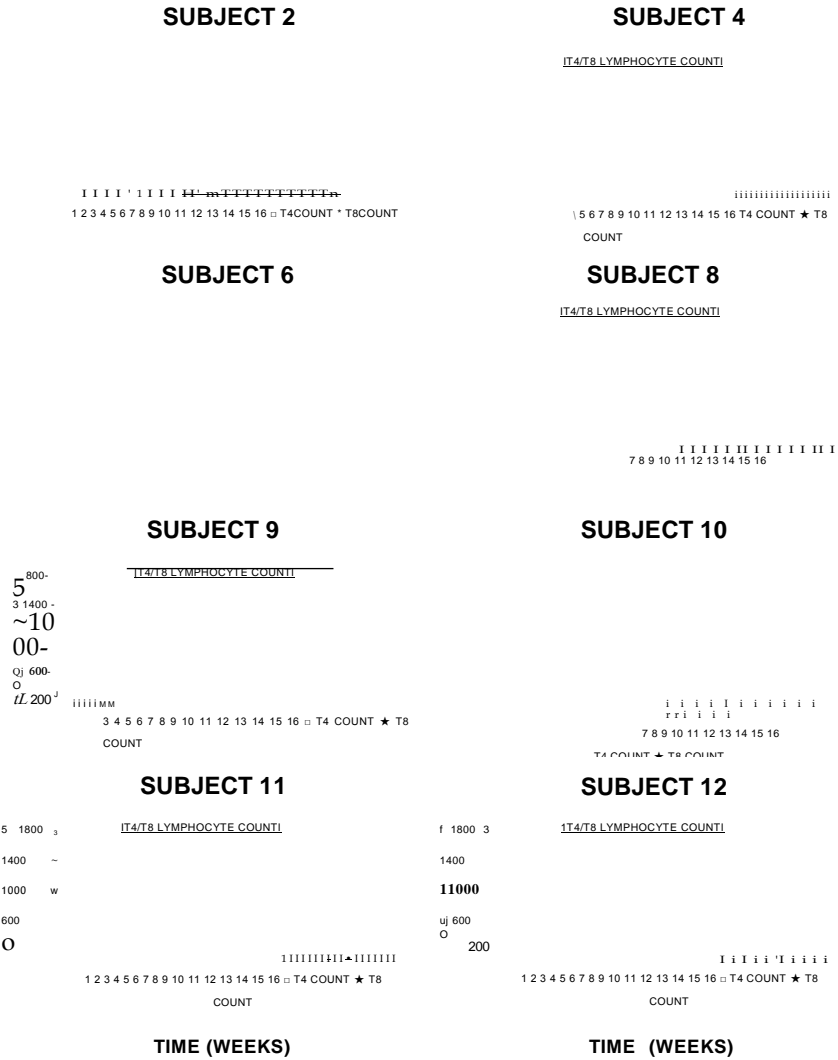


Fig. 1. S02: T4/T8 lymphocyte Ratio (R)=.91 at Time one (T1), .23 at Time two (T2), 1.12 at Time three (T3); T4 lymphocyte=455 (T1), 278 (T2), 335 (T3); T8 lymphocyte=461 (T1), 297 (T2), 1,203 (T3). S04: R=.64, 1.17, 1.57; T4=753, 970, 1129; T8=1163, 831,729. S06: R=.68, .95, 1.19; T4=590, 747, 1003; T8=865, 747, 840. S08: R=.44 (T1), .55 (T3); T4=545 (T1), 512 (T3); T8=1, 226 (T1), 933 (T3). S09: R=.31 (T1), .34 (T2); T4=268 (T1), 304 (T2); T8=842 (T1), 899(T2). S10: R=.32, .31, .48; T4=378, 425, 396; T8=1, 180, 1,347, 825. S11: R=.54 (T2), 1.05 (T3); T4=677, 279, 534; T8=761, 511, 504. S12: R=.12, .13, .07; T4=92, 54, 51; T8=749, 427, 724.

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The changes observed among the immunologic factors proved more indicative of the effect our intervention may have had. Four of the eight subjects' T-4 lymphocyte counts rose, and four declined. Additionally, the T-4/T-8 lymphocyte ratio changed favorably in every case but one. However, the implications of this finding are not clear when one considers the debate within the field regarding the primary function of T-8 cells. Is their main utility to suppress the immune response, or to perform cytotoxic action (destruction of invading substances)? If it is the former, then it was indeed advantageous to affect deterioration of T-8 cells in seven out of eight subjects (only four subjects' ratio changes were caused by increases in T-4 cells simultaneous to increases in T-8 cells), since a depletion of the cells which suppress the immune system (T-8 cells) would presumably lessen the inhibition to attack on the part of other cells, and so increase the immune system's over-all responsiveness. If it is the latter, however, then likely the depletion of this subpopulation is not favorable, since a decrease in cytotoxic cells would render the body more vulnerable to invasion by foreign substances such as the HIV virus (Grady, 1988). The answer to these questions must be postponed until further studies are completed. In the meantime it seems insupportable to consider the T-4/T-8 ratio increases in a positive light unless they are accompanied by T-4 enhancement and, as stated above, this only occurred in four out of eight instances.

We must also emphasize that the positive alterations which we observed in T-4 cell counts cannot be considered statistically "significant" because they remained either within or below the normal reference range of 537-1,571 (Metpath manual, 1988, p. 144). In other words, changes from subnormal to normal lymphocyte counts were not recorded so that, for example, individuals who began with subnormal counts remained subnormal even if their counts increased. However, it is significant from our point of view that two of the four subjects whose T-4 cell counts rose (S4 and S6) showed appreciable gains comparable to those increases recorded in AZT medication trials (Laperriere, unpublished).

Conclusion

This study has not explored any of the larger systemic issues, and their potential for positive impact on psychosocial/immunological functioning. We have, however, investigated the question of whether the micro-systemic, mind/body of an HIV infected individual can be positively influenced by the introduction of a psycho-behavioral intervention such as Core Energetics. Even though our findings have not sufficiently answered this question, we feel that enough positive evidence has been gathered to indicate that psycho-behavioral interventions can, at best, generate moderate immune enhancement comparable to increases caused by AIDS medications, and at the very least, they can cause the sense of personal control and hope associated with "active coping" (Laperriere, unpublished).

The methods which we used to induce changes in immune, and psychological functioning are often referred to as "alternative" therapies by healing professionals. I would like to suggest that these "alternative" techniques, Core Energetics in particular, are vitally important therapeutic techniques which can have a positive influence on the emotional and physical health of an immune compromised individual. That this is the case has not been fully substantiated in the present study. However, enough evidence has been gathered here to suggest the real potential for immune enhancement inherent in body oriented psychotherapy.

Core Energetics may be ideally suited for use with traditional medical interventions, especially when dealing with a disease which causes as much psychological devastation as AIDS. Core Energetics' particular relevance to working with clients facing life threatening illnesses such as AIDS inheres in the use of touch, and various emotive, stress reducing exercises. David Aronstein (personal communication, June 29, 1989), the director of The AIDS Action Committee of Massachusetts, has corroborated the fact that appropriate touching can be a powerful healing adjunct to talking therapy. It can heighten body awareness, establish trust and interpersonal contact, and counteract the overwhelming experience of isolation and ostracism which accompanies this illness. This kind of expanded approach to psychotherapy is perhaps nowhere more needed than in the care of HIV positive and AIDS patients. For, as

Aronstein elaborates, there is a gradual shift taking place in AIDS treatment away from the hospice model, which focuses on helping people to die, to an approach focused on helping people to live.

Our hope is that this study may add, in some small way, to the evidence supporting the need for individual practitioners, as well as hospitals and community-based clinics involved in AIDS treatment to begin to consider instituting comprehensive psychological, immunologic, and energetic assessments as routine intake procedures necessary to ascertain a given individual's level of vulnerability. Developmental and sexual histories should be taken and differential diagnoses formed. An energetic profile would be of relevance, along the lines of the character analytic topology discussed in the literature review. These procedures could be readministered on an ongoing basis to monitor changes in various parameters. This could ultimately allow for individually tailored treatment programs, which would address clients' particular health requirements, and perhaps extend the latency period of their illness.

Alas, for procedures which can ameliorate psychosocial stress and enhance immune functioning to become integrated into existing programs, massive federal funding must become available and, unfortunately, our present administration does not seem likely to respond to this need in the near future. Undoubtedly we should encourage further research in this and other areas, so as to generate additional evidence for the fact that psychosocial factors, and possibly energetic factors as well, are correlated to disease initiation and prognosis. But to solve even a few of the multitude of unanswered questions in this area will take many years of exhaustive and methodologically sound research.

Until substantial samples of HIV positive subjects are studied over long time periods, few conclusions can be drawn. A large, randomly selected study group with a differentially selected comparison group would be necessary to maximize the statistical strength of outcomes, and to control for confounds.

While this kind of longitudinal, experimental research would require extensive funding, it is the only way to definitely approach a question as complex as that proposed by our study. Can a psycho-behavioral, "bioenergetic" intervention be significantly correlated to positive changes in psychosocial stress and immune

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functioning of immune compromised HIV positive individuals? We do not yet know the answer to this question. We are encouraged, however, by the positive trends and relationships which we observed, and believe that these results may help to identify specific areas of study which could benefit from further exploration.

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