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Paths To Healing: An Examination of Psychoneuroimmunology and Its Implications for Collaborative Medicine

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by
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PATHS TO HEALING: AN EXAMINATION OF
PSYCHONEUROIMMUNOLOGY AND ITS IMPLICATIONS
FOR COLLABORATIVE MEDICINE

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COLLABORATIVE MEDICINE
AND ITS ROLE WITHIN AMERICAN CULTURE

CULTURAL AND PERSONAL IDEALS OF GOOD HEALTH AND A GOOD LIFE

In various cultures we hear idioms that imply the wish of good health and a good life as a hopeful message. In the Latin American culture "Salud" or "good health" is heard. The Gaelic phrase for "good health" is "Slainte". And in Hindi "Shuta Kannaye" or "good health" is commonly used as a form of blessing. This phraseology signifies the universal cultural importance that is put on good health and therefore a good life.

However, I idea behind what comprises a good life my differ greatly between cultures, as well as within a given culture. Despite these differences regarding our ideas of a good life, most would agree that the definition of good health is universal. At a very base level we could all agree that good health is more than the absence of illness or the absence of pain. Some of the significant differences that set cultures apart are the type of physical or emotional pain that we face, the measures we take to prevent pain, and how we go about dealing with the pain when ill health is present.
THE AMERICAN CULTURE: IDEALS AND HEALTH

In the United States the average American goes to great lengths to prevent inconvenience and especially pain, because the average American can afford to. Driving to destinations when within walking or biking distance, buying fast-food to save the time of cooking, and eating, smoking, or drinking in excess are unhealthy habits that many Americans engage in. And another paradoxical, but common attribute of many Americans in the work force is that many people work extra long and hard hours so that we can buy more things that can further decrease our pain level or to make life more comfortable.

It is true that we are a privileged country. Many countries could not afford such luxuries as pain prevention. That is why it seems so ironic that some of the things we use to prevent pain and inconvenience are the same things that may eventually cause great illness and discomfort.

I believe that this is part of the American dilemma. Most Americans are educated enough to know that behaviors such as smoking and excessive eating and drinking are detrimental to our health, but these behaviors are practiced anyway. In order to acquire the American dream of prosperity we must accept the stress that is involved. And
when it comes time to release some of the accumulated stress the methods employed are often self-defeating.

It seems that U.S. citizens are not heeding the warning that preventative measures can hinder future ill health. For instance, many Americans continue to smoke despite the proven link between smoking and various forms of cancer. In fact in the year 1990 approximately 419,000 people died of smoking related illness (Facts on file 954).

Many Americans also overeat. Although some cases of obesity may not be stress related, it is thought that one of the main reasons people overeat is due to stress. In a 1991 study about 34% of Americans were found to be obese or overweight (Berkeley Wellness Letter 2). In a similar study approximately 20% of American teenagers were found to be overweight and are reportedly expected to gain, rather than lose, weight due to their poor health habits (Marieb 858). In addition to being overweight, a growing number of children’s cardiovascular fitness is declining as well (Marieb 858). Those that are overweight, and even some of those that are not overweight but consume foods high in cholesterol and saturated fats, add to the likelihood of developing hypertension, heart disease, arteriosclerosis, and diabetes mellitus, among other possible maladies (Marieb 858).

In an effort to keep up with the American lifestyle an
even increasing number of us live a very stressful life between our family, friends, education, jobs, and our other commitments which contribute to ill health (Sutherland 161). It has been found that stress can lead to heart disease and various other ailments, especially in older men (Mayo Clinic Health Letter 6).

Most Americans would assert that it is difficult to find time for a balanced life while living in our fast-paced society. It is obvious that such a lifestyle is not optimum for a balanced life so it should be expected that something is going to give if we do not take care of our health needs. An effective way of preventing future problems is to learn alternative ways in dealing with the current stress in our lives.

COLLABORATIVE MEDICINE MAY BE THE ANSWER TO THE AMERICAN HEALTH PROBLEM

It has been tradition that when Americans grow ill they seek a Western doctor. Most people would find it ideal if each patient were treated as an individual with individual, specific problems. However, due to several contributing factors Western doctors have generally been treating the patient’s symptoms in a textbook fashion resorting mainly to pills and surgery and have been less likely to take into
consideration the individuality of the patient and his/her disease.

In Western health care little time is spent talking with the patient to find out what ails the patient other than the physical symptoms. This method of analyzing only the symptoms of the problem is very limiting because it ignores other factors that may be contributing to the health problem.

For instance, very little time, if any, is spent discussing with the patient what the patient himself/herself feels is the problem. Also, little time is spent talking about how the patient feels emotionally in addition to physically. If the problem is almost solely stress related the doctors may be overlooking a possible diagnostician of the disease--the patient himself/herself.

Although getting to know the patient’s emotional or personal life is not routine in typical Western practice, it is central to holistic practice. Holistic practice revolves around the individuality of the patient and is more apt to consider collaborative medicine as a route for the healing of the patient. Collaborative medicine is a form of medicine that uses conventional Western medicine in addition to forms of alternative medicine such as meditation and psychotherapy. Collaborative medicine is a combined approach that may be beneficial to the patient’s individual
progress to a healthier life. This is one of the main differences between conventional Western physicians and unconventional holistic physicians.

Dr. James Gordon a holistic physician states that the holistic approach "... recognizes the uniqueness of each patient, the centrality of the therapeutic partnership, and the primacy of self-care..." (Gordon 357). Not only do holistic practitioners deal with the symptoms, but they also work with the patient on ways to deal with the problems that may be causing the symptoms. The ways in which these problems are treated may be very diverse. The treatments may be as diverse as the needs of each individual.

Some of these methods not only help alleviate the symptoms, but also provide ways to prevent such symptoms from occurring again. Because these alternative forms of health care also involve ideas such as relaxation, they provide ways to change habits so that the patient is able to live a more healthy life by learning how to cope with stress in a healthier manner.

In some cases such as in heart attack victims, the ways to get healthy may require life-style changes. For example, Dr. Dean Ornish is a practicing cardiologist who requires his patients to follow a strict vegetarian diet, attend group therapy, learn stress-reduction exercises, and to exercise daily in an effort to improve the physical state of
the patient (Moyers 87). He expects his patients to permanently adopt these changes into their lifestyle so to improve their health.

This method of teaching patients how to better control stress by employing various activities may be especially helpful to many Americans who are in need of learning alternative ways of dealing with stress.

THE PRACTICAL APPLICATIONS AND BENEFITS OF COLLABORATIVE MEDICINE

Nonconventional methods of health care such as meditation, herbalism, chiropractic care, and acupuncture are gaining acceptance by the Western public. The use of nonconventional methods of health care in collaboration with Western care has been found to work on many people (Franklin 84). The use of nonconventional methods of health care to promote healing are usually less expensive, as well as less invasive than some forms of conventional treatment.

An example of collaborative medicine in practice is the use of psychoneuroimmunological principles in cooperation with standard Western chemotherapy to save the life of a 12 year-old girl who was dangerously ill with Lupus (Moyers 80). This particular strategy of collaborative medicine saved the life of Merette Fleece the young girl with Lupus,
because the usual amount of the drug needed for effective treatment would have been enough to possibly kill young Merette. This necessitated trying another approach. According to Dr. Robert Ader who aided in the treatment, her previous doctors had essentially given up hope and the use of collaborative medicine was Merette’s only remaining chance at survival (Moyers).

Dr. Karen Olness and Dr. Robert Ader were able to heal Merette by using classical conditioning. The doctors were able to utilized her physiological response to a taste and a smell to tell her body that she was still being given the needed drugs, when in actuality she was given little and eventually none of the drug. Since Merette has received this treatment she has been able to live a relatively normal life and is currently attending the University of St. Thomas in St. Paul, MN (Moyers). Collaborative medicine is often used as a last resort such as in the case of Merette Fleece, but there are many additional advantages of collaborative medicine such as lower financial cost as well as being less invasive.

Americans spent $817 billion dollars on health care in 1992 alone (Consumer Reports 435). The amount of money that Americans continue to spend on health care each year is amazing, especially when we consider how little is done to prevent future illness. One of the benefits of
nonconventional medicine is its focus on prevention and its reliance on methods such as aerobic exercise, a healthy diet, meditation, yoga, and various other forms of nonconventional health care. Another goal of nonconventional medicine is to promote a healthy mind/body, and therefore to prevent certain illnesses. By doing these activities for a small period of time daily the result can be a significant decrease in future illness, as well as in future medical bills. It can also improve emotional well-being and health (Moyers 87). It is obvious that preventative medicine can definitely be cost effective, as well as more helpful to the patient's well being.

There are many benefits of incorporating the principles of nonconventional or alternative forms of medicine into Western health care system: cost effectiveness, decreased side effects in comparison to the use of some forms of Western medicine (i.e. drugs and surgery), and better ways of preventing future ill health. Another theory is that a patient may get better using nonconventional methods because the patient may be more comfortable with the treatment, and truly believes that he/she will get better, which may have an affect on health (Houldin et al. 17).
THE BENEFIT OF PERSONAL BELIEF IN THE VALUE OF COLLABORATIVE MEDICINE

Patients often turn to alternative practitioners to find a more personal, individualized health care than they have received from conventional medicine (Clark 75). When patients seek this sort of therapy on their own they make a great contribution to their healing. When patients feel more comfortable with the therapy, they are part of the healing process because they have chosen the therapy and they believe in the therapy.

The patient's ability to aid in their healing is enhanced when they are comfortable and feel like they are part of the healing process. Patients of alternative methods are involved in the decisions about treatment options, thus put a greater belief in the treatment. Such phenomenon and its positive affects on healing have been extensively studied and have been scientifically shown that such things do indeed matter (Dossey 31).
THE INCREASING INTEREST IN THE POWER OF EMOTION

Neuropeptides are thought to be the chemicals of emotion and have been found in various places throughout the body, and the receptors for these neuropeptides have also been found in various cells throughout the body. Neuropeptides are produced by neurons within the central nervous system. These neuropeptides are thought to be in close communication with the immune system (Hall 68). Researchers have found that certain emotions can affect the immune system. This leads the researchers to believe that these neuropeptides, the chemical of emotions, may be a mediator of the health. Because many people consider emotion to be in the realm of the mind, many believe "the mind" may have a direct influence on our immunity.

Such scientific evidence emphasizes the importance of making the patient comfortable with his/her treatment, and thereby putting them in a better emotional state. Many of the nonconventional or alternative forms of medicine have had a history of doing this, and this is thought to be the reason that many people are turning to alternative medicine. If the patients and their families believe that they are getting better care and attention with alternative medicine this may have an effect on the immune system. The recent scientific findings in the realm of psychoneuroimmunology,
the study of how emotion affects the immune system, show that the way the patient feels does indeed make a difference.

Many believe that medicine needs to not only look at curing the illness, but rather healing the patient (Sabatino 66) (Stevens 166). This is not to say that all conventional medicine is bad, but perhaps Western medicine needs to reevaluate how it views a patient, the illness, and the patient’s family. Western science has not been known to value this with great adherence. However, this is the major premise in other forms of nonconventional or alternative medicine (Clark 76). Perhaps now is the time Western medicine to consider such alternatives.

THE OBJECT OF MY RESEARCH

The object of my research and the direction of this paper is devoted to examining alternative forms of medicine with the intention of using some of these more "personal and individualized" approaches to medicine in collaboration with Western medicine. The underlying hypothesis is that a more personal/individualized approach can aid in healing based on psychoneuroimmunological principles.
THE DEFINITION OF PSYCHONEUROIMMUNOLOGY

When seen for the first time, the word psychoneuroimmunology looks quite intimidating. However, when we analyze the word we find that the roots words reveal the basic implications of this word. "Psycho" refers to the mind or the emotional and cognitive processes, and thus mood states. "Neuro" signifies neurological and neuroendocrine systems. "Immune" indicates the immune system or the cellular and humoral immune systems. And finally "logy" implying "the study of" (Groer 33).

As well as being intimidating at first glance, the word psychoneuroimmunology seems unwieldy. Again the word is surprising for after careful analysis we realize that this word is actually an eloquent and concise representative for the very complex processes that its recent research suggests.
THE ROOTS OF PSYCHONEUROIMMUNOLOGY

Research in the field of psychoneuroimmunology is relatively new, but has made great strides over the past 20 years. Psychoneuroimmunology has become a familiar word to most physicians and research psychologists and is now a word that is being introduced to the greater American public. Research in psychoneuroimmunology has intensified over the past ten years, specifically within the last few years (Kiecolt-Glaser et al 573). Perhaps this is in response to the public's dissatisfaction with the current "insensitive" Western medical care or possibly because of the public's own interest and belief in the field, but more probably a combination of the two. For whatever reason research in this area has escalated and the lay public is now beginning to learn more about psychoneuroimmunology and will hopefully reap the rewards in a myriad of ways. One thing is certain, the research in this field suggests that psychoneuroimmunology has the potential to revolutionize the health care system.
THE UBIQUITY OF MIND/BODY THOUGHT AND ITS REPRESENTATION THROUGHOUT THE WORLD

The basic premise of psychoneuroimmunology is that emotions and thoughts are linked to immunity and therefore physical health. This is not a new idea. In fact they have been around for hundreds of years. Aristotle (c. 384-322) recognized the mind/body connection (Vollhardt 35). Sir William Osler (1849-1919) "the father of modern medicine" had said that it is as important to know what is going on in the mind of a person with an illness as it is to know what the illness is inside the body (Vollhardt 35).

The belief in the mind/body relationship is not culture specific and is in fact observed in most cultures. Carl Hammerschlag is a trained psychiatrist that has spent 20 years in the American Southwest learning about the Native American vision of health and healing. He has commented on the difference between Western medicine and that of the Native American style of medicine. He has found that Native American healing is more congruent with the premises of psychoneuroimmunology, regarding the mind/body relationship,
Native American ‘medicine men’ understand that the healer plays but a small role in the healing process. They tell their patients, ‘I’ll do the best I can. You must do the best you can. You must have faith in yourself. You must look within and call up your inner strength. You must rally the support of your family and clan. We’ve all got to work together’ (Perlmutter 72).

These themes are also seen in the indigenous of South America. The success of shamanistic healers in the Peruvian Amazon can also be contributed, at least in part, to the principles of psychoneuroimmunology. Marlene Dobkin De Rios is a professor of Anthropology at California State University and has followed and studied the practices of the Shaman of the Peruvian Amazon. She has found that, "... psychoactive drugs and other psychotechnologies (are used) in order to create trances in their clients, as powerful tools to alter emotional, psychosocial, and physiological functioning." Dr. Dobkin De Rios has also said that, "In recent years, many scientists have examined aspects of the actual healing process associated with what has been called the ‘immunocompetence’ of the individual" (Dobkin De Rios 91). This means that they believe that the work of the Shaman in cooperation with the effort of the client has contributed to increased immunity and therefore has contributed to better health.

Although immersed within the heart of the influence of
Western medicine, one can also hear phrases in middle class America which have similarities to the mind/body genre: "She died of a broken heart" referring to a woman who had died shortly after the death of her long-time companion or husband and "He worried himself sick" referring to a student who had gotten a cold or flu during his week of examinations. In fact these as well as many other popular beliefs have been researched and substantiating evidence has supported these phrases.

Phrases such as "She died of a broken heart" and "He worried himself sick" are describing the emotions that occur during bereavement and test anxiety. The emotions of bereavement and test-anxiety and their affects on health have been studied (Bartrop, Luckhurst, & Lazarus) (Kiecolt-Glaser, Kennedy, Malkoff, Fisher, et al), and were proven to be scientifically correlated in the studies.

Many people have been educated to believe that those phrases and beliefs are superstitions and/or folklore, and that every illness is biological and therefore chemical; however, psychoneuroimmunology has begun to find empirical evidence that support those particular intuitions. It has been found that these "wives-tales" have an element of truth and are not purely folklore.

At the same time psychoneuroimmunology has not refuted the theory of illness being chemical, but rather
psychoneuroimmunology has begun to link the two together by researching the chemistry of emotion and how it affects the body. Dr. Candace Pert is one of the most prominent enthusiasts of psychoneuroimmunology and has done extensive research on the biochemistry of emotion. Dr. Pert believes that the body and the mind are not separate entities, but are intricately interrelated.

These mind/body connections can be traced back to Aristotle, and possibly even before Aristotle. So why has science steered so drastically away from this line of thought? Where has the lineage strayed? Dr. Candace Pert traces the decent of mind/body theory to Descartes and his agreement with the church regarding the mind as separate from the body.

Well, that just goes back to a turf deal that Descartes made with the Roman Catholic Church. He got to study science, as we know it, and left the soul, the mind, the emotions, and consciousness to the realm of the church. It's incredible how far Western science has come with that reductionist paradigm. But, unfortunately, more and more things don't quite fit into that paradigm. What's happening now may have to do with the integration of mind and matter (Moyers 179-180).

According to Pert this philosophy has kept science, more specifically medicine, from linking the mind, soul and/or spirit to the body's physical health.

Perhaps the advent of psychoneuroimmunology and the
research that surrounds it will be the catalyst to change the philosophy and application of Western science and medicine to a more mind/body approach.

**THE IMPETUS FOR RESEARCH INTO PSYCHONEUROIMMUNOLOGY**

It is evident that the ideas behind psychoneuroimmunology were existent long before formal research had taken place. It seems likely that the impetus for exploring a field such as psychoneuroimmunology would come directly from the physician’s keen sense of observation after years of empirical study. Physicians see many patients with a great variety of problems, and there is a high probability that a single physician has seen many cases in which no scientific reason could explain the progression of the patient’s illness.

Take for example the diagnosis of cancer. Many doctors have found that after the diagnosis of cancer some of the patients degenerate at a faster rate than the actual course of the disease would have indicated. The doctors can see that these patients have essentially given up and given in to the disease (Langer 49).

Antithetically, there have also been those that have healed themselves despite either the prediction or the aid of Western doctors and modern medicine. Norman Cousins a
well-known editor and author claimed that he had cured himself by laughing himself to better health with the help of the Marx brothers and Candid Camera reruns and with minimal aid from modern medicine (Callahan 283). Others have wholeheartedly claimed to have done the same or similar through the use of alternative therapies either alone or as an extension of the usual use of traditional Western medicine.

Alternatives to the mainstream Western medicine have proven to be very beneficial to patients that have chosen to use collaborative medicine. Some forms of alternative medicine such as Chinese acupuncture have been empirically studied and have shown to have a physiological effect on the body.

I personally believe that all good medicine should be able to heal the body utilizing traditional Western medicine's progress in science and physiology, as well as by allowing the patients to help themselves by activating their own healing abilities. The study of psychoneuroimmunology empirically shows that emotions and thus neuropeptides within the brain and body may be capable of aiding in the healing process. Because alternative medicine can be a direct link between the ideas of psychoneuroimmunology and patient empowerment, I feel that alternative medicine should be taken more seriously than it is in today's medical
practice and should be part of the education of future doctors.

THE ORIGIN OF RESEARCH INTO PSYCHONEUROIMMUNOLOGY

George F. Solomon is a researcher in the field of psychoneuroimmunology. He traces the beginning of research in psychoneuroimmunology to careful observation of autoimmune diseases, which are diseases in which the body's immune system begins to work against itself and cause illness (Levin 530). The possible factors researched most often in these studies exploring autoimmune disorders were personality, stress, and emotional distress. They were found to be associated with 'relative immunologic incompetence' (Levin 530). Solomon states "This combination, plus growing evidence that distress is associated with the elevation of adrenal cortical hormones (which can be immunosuppressive), led to the hypothesis that 'stress can be immunosuppressive'" (Levin 530).

In 1964 psychiatrist George F. Solomon and his colleague Rudolf Moos published a landmark study on the link between emotional conflict and the onset and course of rheumatoid arthritis in women. The women who were emotionally healthy, that is, not depressed, had good marriages, and who were not alienated, remained free of the
disease despite their genetic disposition. Solomon attributed their physical health, meaning their absence of rheumatoid arthritis, to their "emotional health" (Hall 66). Needless to say, the study proved to be controversial in the medical field at the time it was published.

Later in the 1960’s Solomon continued his research in his laboratory called the ‘Psycho-immunology Laboratory’ at Stanford University. He began researching the affects of stress (suppressive) and early experience (enhancing) on humoral immunity (antibodies) on rodents. At the time the medical community was not familiar with the principles of psychoneuroimmunology (or perhaps they were just plain skeptical about the field), and therefore Solomon and his studies were not met with encouragement. Solomon says "Going against the prevailing orthodoxy of the ‘autonomy’ of the immune system as responding only to antigenic challenge, these early observations had little impact" (Levin et al 530).

Robert Ader is a psychologist and renowned pioneer in the field of psychoneuroimmunology is said to be the man that provided enough evidence to gain wider acceptance of psychoneuroimmunology within the medical community. This was largely due to his famous series of experiments with classical conditioning done with his colleague Nicholas Cohen in the 1970’s. Solomon described Ader’s experiments:
Ader paired an immunosuppressive drug cyclophosphamide with saccharin and showed that, subsequently, saccharin alone could suppress immunity. Such 'classical' conditioning can be mediated only by the CNS. This work (which also has many implications regarding theories of the placebo) rediscovered (with more elegant methodology) observations on the conditioning of immunity made at the Pasteur Institute in the mid-1920's (Metal'nikov and Chorine), but the evidence was essentially ignored because it seemed too implausible (Levin 531).

As seen in the case of Ader research into psychoneuroimmunology is not restricted solely to the medical doctors or exclusively those of a medical background. In addition to Ader many prominent psychologists such as Dr. Margaret Kemeny have made and are continuing to make great contributions to the field of psychoneuroimmunology.

OPENING THE FLOOD GATES TO RESEARCH INTO PSYCHONEUROIMMUNOLOGY

After the groundwork was laid by Ader it opened the field up to a multitude of professionals. Because the domain of psychoneuroimmunology is so vast it has gathered quite an eclectic group of researchers: neurologists, endocrinologists, psychologists, behavioral scientists, immunologists, psychiatrists, molecular biologists. With
this diverse interdisciplinary approach to research there may be inherent conflict of exegesis, methodology, and interpretation. However, this diverse representation of experts also has great potential to answer some of the mysteries of the human mind. Specifically the mystery of emotions and the affects of these emotions on our health.

RESEARCH THAT HAS SUBSTANTIATED AND GIVEN CREDIBILITY TO THE FIELD OF PSYCHONEUROIMMUNOLOGY

A plethora of research has been done since Ader’s initial experiments with classical conditioning in the 1970’s and is too extensive to document in full here. However, it is necessary to touch upon some of the most significant research that has been done to give a good indication of the depth and expanse of such research.

There are some major premises regarding psychoneuroimmunology. One such premise is that psychoneuroimmunology now assumes that all disease is multifactorial, including factors such as genetic, endocrine, neurologic, immune systems, behavioral, and emotional factors, are considered as possible contributors to disease.
THE EFFECTS OF STRESS

Firstly, it was necessary for the researchers to carefully define stress so that it would have a common definition to all so as to eliminate ambiguity. The perceived stimulus is said to be the stressor, and more specifically the body's adaptation or response to the stimulus, as stress. Therefore, situations are stressful only if it is perceived as such (Sutherland 159).

Chronic Stress

Virologist Ronald Glaser and psychologist Janice Kiecolt-Glaser did a study on the care-givers of Alzheimer's patients who were also relatives. The study of sixty-eight experimental subjects found that those who cared for their Alzheimer's relatives had significantly lower percentages of T-cells than the control subjects. Lower percentages of T-cells indicates an impaired immune system when compared to the control group (Kiecolt-Glaser, Fisher, Ogrocki, Stout, et al).

Bartrop, Luckhurst, and Lazarus studied the affects of bereavement (specifically spousal death) on lymphocyte proliferation. There was a reduction of T-cell function following the death of their mate when compared with the T-
cell function of the control group, which again relates to a depressed immune system (Schleifer, Keller, Camerino, Thronton, et al).

Extensive studies have been done on divorce and its effect on the immune system. A study done on a group of women found that those women who were divorced had markedly lowered immune function when compared to the married control group (Kiecolt-Glaser, Fisher, Ogrochi, Stout, et al). Men too were studied and it was found that divorced men were more psychologically distressed, lonelier, and more sickly when compared to their married controls. Furthermore it was found that the divorced men also had a more depressed immune system (Kiecolt-Glaser, Kennedy, Malkoff, Fisher, Speicher, et al).

**Short-Term Stress**

A series of studies were conducted on medical students during examination week. Examination stress was associated with a decline in natural killer (NK) cell activity, as well as reported changes in total T-lymphocytes, T-helper to T-suppressor cell ratios, and gamma interferon production, which are all necessary in the immune response. This study showed that during the time of examinations the immune function was suppressed (Kiecolt-Glaser, Garner, Speicher,

Although all of these studies provided evidence of an immune function suppression, the mechanisms behind these effects are still quite unclear. Thus, the actual health consequences remains somewhat unclear. This should be kept in mind when considering these studies. However, this certainly does not imply that these studies are of no relevance to medicine or healing.

**IMPLICATION AND APPLICATIONS OF PSYCHONEUROIMMUNOLOGY ON HEALTH CARE**

**THE VALUE OF MIND/BODY MEDICINE**

Today there are innumerable studies being done, such as the research into psychoneuroimmunology, that either directly or indirectly allude to the mind/body theory of health and healing. To simply ignore the research and its findings would be both impractical and unethical. Some questions for modern Western medicine are the following: 1) Does, or will, the public accept alternative adjuncts to modern Western medicine? 2) In the face of all of this evidence, where do we begin to implement prudent changes in health care? 3) How do we begin to implement programs, systems, or alternatives that are of the mind/body
philosophy? Although these seem like overwhelming questions to answer, we find that currently the answers to these difficult questions are revealing themselves.

Public Interest

The evidence found regarding the public's interest in and use of alternatives to conventional medicine has been somewhat surprising to some. A 1991 poll by Yankelovich, Clancy, Shulman found that 30% of the people questioned about their belief and use of unconventional medicine reported that they had tried some form of unconventional medicine, and half of them within the past year (Clark 75). In addition, it has been reported that in the 1991 alternative medicine had grossed approximately $27 billion dollars (Wallis 68).

I believe that one of the main reasons that people are seeking alternatives to conventional medicine may be out of frustration with the tendency of conventional medicine to be impersonal and unwilling to spend the time to properly tend to the patient's needs. Carol Saline is a journalist who has spent a good amount of time researching alternative medicine and why people turn to it. She came up with this conclusion,
Patients are sick of often being seen as problems—the migraine in examining room B—instead of people. And they’re sick and tired of traipsing around to specialists. They want a health practitioner who sees them as a whole person and not a body part, one who spends time with them, listens to their complaints and makes them a partner in their recovery. That is exactly what they find in alternative medicine, where the provider is less of an authority figure and more of a trusted friend. It’s no accident that one of the buzzwords of the movement is empowerment (Saline 81).

There are also cases in which alternative medicine is the last hope for some patients that conventional medicine has failed to help.

William Jarvis is an outspoken critic of alternative medicine and views the interest in unconventional medicine in a different way. He believes that, "As life expectancy approaches human life-span, the limitations of science becomes apparent. And since longevity research is not finding a youth pill, the new attitude is 'What has basic science done for us lately?'" (Clark 75).

It seems as though Jarvis’ suppositions have painted a picture of society which gives very little credit to the intelligence and intuition of the public. I believe that the interest in alternative medicine is due to many factors. Dr. John K. Zawacki is a gastroenterologist often refers patients he cannot treat to alternative practitioners who
can. Dr. Zawacki claims that one reason patients seek alternative medicine is that conventional medicine has failed to help them and they have nowhere else to turn.

I would also say that many people feel they are not getting adequate personal attention and feel that they are not considered to be part of the health care equation according to current conventional medical practices. Many have the realization that there are paths to healing that modern medicine has not yet, as a whole, adopted as part of its main objectives.

Types of Alternative Medicine

Some attention should be paid to the terminology used here. Alternative medicine encompasses many forms of "non-traditional" medicine. These forms range from medically tested and accredited acupuncture to what many consider beyond the fringe practices such as crystal healing. The alternatives that I am referring to are the methods which have been researched and which evidence has shown to be beneficial. Some of these forms of health care are psychotherapy, meditation, some forms of traditional medicine from other cultures, as well as the benefit of alternative hospitals/facilities.
THE USE OF ALTERNATIVE MEDICINE AS AN ADJUNCT TO MODERN
WESTERN MEDICINE

It is estimated that as many as 1,000 American doctors
have abandoned conventional medicine and have begun to take
up holistic practices with the many non-MD's before them.
These holistic practitioners utilize various forms of
alternative medicine (Clark 75). However, holistic
practitioners for the most part feel uncomfortable with the
term "alternative". They believe that it has the
connotation that alternative treatment is used solely
without the collaboration of modern Western medicine.

The terms adjunctive medicine or collaborative medicine
are more descriptive of holistic practice, because
alternative is usually used in collaboration with Western
Medicine. Most holistic practitioners believe that there
are times in which conventional medical care is necessary
and they reserve the right to use it when it is best suited
for the patient. What is best for their patient may involve
antibiotics, surgery, and other high-tech treatments which
are encompassed by Western medicine (Stevens 165). In other
instances the patients may simply need to be heard. Because
both forms of medicine may be used by holistic practitioners
with a medical degree, terms like adjunctive or
collaborative medicine give the public a better indication
of the intent of a holistic practitioner.

The holistic practitioner believes that his/her main
purpose is to find out which form of medicine would be the
best form of healing for the patient. In order to do this,
it is necessary to develop a good relationship with the
patient to find out from the patient what the patient feels
would help him/her best. This is relationship is part of
the distinction between conventional medicine and holistic
medicine.

SOME CURRENT APPLICATIONS OF ADJUNCTS
TO WESTERN MEDICINE

ALTERNATIVE HOSPITAL/FACILITIES

There is no denying that most people dislike hospitals.
People complain that hospitals are impersonal and
uncomfortable and as soon as people are placed in the
hospital, they want to leave. Part of the uneasiness of the
hospital is its strangeness. This strangeness can be life-
threatening according to Klaus Jarvinen who is a lecturer of
internal medicine at the University of Helsinki. Jarvinen
did an investigation which studied patients that had
suffered severe heart attacks and found that they were five
times more likely to die suddenly when unfamiliar staff members made the rounds (Langer 50). It is distressing to know that in the fact occurs frequently in many large hospitals (Silberner 55) (Rubin 76).

Mid-Columbia Medical Center is a small rural hospital in The Dalles, Oregon, which is designed to change these adverse feelings towards hospitals and to create a more familiar and comfortable atmosphere that is more congruent with healing (Sabatino 66). In order to establish this sort of "welcoming and comfortable" environment the hospital has had to make major adjustments in its structure.

The hospital was specifically built for the patients needs--emotional as well as physical. The room of the hospital are equipped with an extra bed. Friends and family are encouraged to stay overnight if needed to make the stay more comfortable for the patient or to ease the minds of the family and friends. There are also kitchens provided so that friends and family can prepare the patient's favorite meals. The hospital stresses the involvement of the family and friends, and so to accommodate this ideal the hospital does not set specific visiting hours (Moyers).

Contrary to what is found in most Western hospitals, the nurses and doctors at Mid-Columbia Medical Center spend a great deal of time talking with the patient and getting to know the patient. One nurse said, "I used to be afraid to
get caught holding the hand of a patient and just talking. 
I was always told it was a waste of time, but here (Mid-
Columbia Medical Center) it is encouraged" (Moyers). It is 
obvious that Mid-Columbia Medical Center feels that a strong 
doctor or nurse/patient relationship is very important to 
the healing process.

Mid-Columbia Medical Center also provides services such 
as massage when requested. Massage is used before surgery 
to ease the tension of the surgical procedure to come. This 
is very important because many believe that the attitude you 
have going into the surgery may have an affect on the 
success of the operation itself. The medical charts of the 
patients are also available for the patients viewing, 
comment, and discussion. The hospital believes that the 
patient should be an active guide and play an active role in 
his/her own healing process (Sabatino 70).

The Mid-Columbia Medical Center seems revolutionary 
when considering the status quo of hospitals today; however, 
the paradigms of what we see as revolutionary might be 
changing in the future. We must consider the positive 
reactions of all those that have been affected by the 
hospital—patients, families, friends, doctors, nurses, and 
staff. It seems as though this type of "gentle and kind" 
medicine might be catching on.
PSYCHOTHERAPY

The term psychotherapy conjures many images in people’s minds. Some may mistake psychotherapy with psychoanalysis and immediately have images of people on couches talking to their psychiatrist about their mother and their unconscious desires. Others may have visions of a group such as Alcoholics Anonymous where people with similar problems get together to share their stories and struggles. When applying psychotherapy to collaborative medicine the latter vision would be the most accurate.

The psychiatrist Sigmund Freud, the creator of psychoanalysis, was the first to formally introduce psychology to medicine. Freud believed that the thought did have an affect the body. To cure the illness and therefore solve the problem one must talk through the life of the patient. This process was psychoanalysis.

Carl Gustav Jung, once a colleague of Freud, broke with Freud due to fundamentally different beliefs that Jung had formulated over the years. Jung believed that the obvious symptom was not likely to be due to one particular aspect of life, but rather because of many aspects of life that are unique to the individual. Jung says this of his philosophy:
In many cases in psychiatry, the patient who comes to us has a story that is not told, and which as a rule no one knows of. To my mind, therapy only really begins after the investigation of that wholly personal story. In therapy the problem is always the whole person, never the symptom alone (Jung 117).

Psychotherapy as used today in collaborative medicine is used in a manner similar to Jung’s idea of psychotherapy. Psychotherapy is used as a kind of catharsis, which deals with the emotions of the whole individual.

Psychotherapy is currently being researched for its possible benefit to increasing the life span of patients with what are thought to be terminal diseases. Much of the current research into psychotherapy and its possible benefit to these patients is being done by psychiatrist Dr. David Spiegel and his colleagues at Stanford University (Moyers 157). Dr. Spiegel began his study in 1977 on a group of women with metastatic breast cancer. This study resulted in unexpected success.

In 1977 Dr. Spiegel began a study with 86 women who all had metastatic breast cancer. Half of the group were assigned to a control group had received the standard medical treatment of radiation therapy, chemotherapy, and regular check-ups. The experimental group were placed in group psychotherapy that met once weekly in addition to the standard medical treatment.
The outcome was quite surprising to Dr. Spiegel. What Dr. Spiegel expected to see was only a better psychological state in the women who received both the psychotherapy and medical treatment. In fact, Dr. Spiegel found that the women in the experimental group lived up to 18 months longer than the women in the control group that received only medical treatment. Although all of the women eventually died, which was expected, all of the women in the experimental group lived longer than those who did not receive group therapy and had a better quality of life because of the psychotherapy (Moyers).

Many believe that such success can be attributed to the better psychological state of the women in the experimental group. The better psychological state and the increased life-span is thought to be attributed to the comfort of talking weekly with women who are going through similar situations. Although women in the control group may have had good social support systems, many believe that because the women in the experimental group were speaking with women whom were in the same situation with similar fears. The group allowed the women to be more honest with their feelings. The women in the experimental group were able to express their feeling to someone who understood what they were going through, without the fear of being a burden.

Dr. Spiegel is currently repeating the study to
increase the validity of his experiment (Moyers). Although we can not be certain of the reasons for the increased life-span of the women that received psychotherapy, we can make an educated assumption that the principles of psychoneuroimmunology were responsible.

A similar study was done on women with AIDS (St. John 5). This was an interesting study in many ways. Firstly, because studies have shown that emotions can have an affect on the immune system there is a possibility that the neuropeptides of the mind and body may aid in suppressing the disease (St. John 5). Because there is thought to be no viable cure for AIDS in the near future, researchers are looking into the idea of recruiting the body’s neuropeptides in combating the disease (Hall 71).

The AIDS study done with women was also interesting and educational because AIDS has been taboo for so long. Social taboo may be the reason that the public has held false notion of the disease. The fact that these middle class women have AIDS breaks the stereotype of AIDS as being a homosexual male or drug addict’s disease.

Although the study is still very young it shows promise in making the lives of the suffering better, as well as the possibility of increasing their life-spans via strengthening the immune system. The researcher have been trying to achieve this in a way which is similar of that of the
Spiegel study. In addition to discussing in group session, the women of this AIDS study did various activities such as body talk--combined movement exercises with verbal description of the exercise in order to better articulate feelings, practice disorientation which deals with the eventual circumstances the women will have to face, holding ambiguity--allowing the women to feel the physical vulnerability of the disease and simultaneously allowing themselves to feel pleasure in life (St. John 5). These various activities help the women to understand their feelings better and hopefully the women of this study will feel similar rewards as did the women of the Spiegel study.

MEDITATION

The Stress Reduction Center at the University of Massachusetts Medical Center in Worcester was founded 13 years ago by Jon Kabat-Zinn. Kabat-Zinn gave up his career in molecular biology with the intention of helping "untreatable patients" deal with their problems. There was, and still is, need for such programs that are targeted to help patients that are essentially untreatable with normal methods. Kabat-Zinn started out 13 years ago to do just that.

The patients are taught Zen meditation as one of the
methods of therapy used at Stress Reduction Clinic at the 
University of Massachusetts Medical Center in Worcester. 
Patients of the Stress Reduction Clinic are referred by 
physicians who can no longer do anything for the patient's 
illness or ailment. Such patients suffer from a variety of 
maladies such as AIDS, muscular dystrophy, hypertension, 
chronic back pain, anxiety disorder, gastrointestinal 
distress, coronary artery disease, and cancer. The patients 
of the Stress Reduction Clinic are taught Buddhist 
meditation and yoga.

During the course of their eight-week program the 
patients of the Stress Reduction Center learn better 
breathing techniques, the power of mindfulness, meditative 
techniques, stretching and/or yoga, and how to release 
tension. The patients spend 45 minutes on their own daily 
practicing the techniques (primarily meditation). They also 
and meet as a group two times a week to go over the 
techniques, as well as discuss what they are going through.

The goal of the Stress Reduction Center is to learn how 
to handle the pain in a different manner. It is unlikely 
that they can cure the disease of the patient, for there is 
at present no cure for AIDS, cancer, MD, etc.; however, the 
idea is to get control of the pain through the fore 
mentioned techniques and to improve the quality of the 
patient’s life.
The outcome after the eight-week program is that the patients reportedly felt much better despite their remaining illness (Barasch 9). They have in a sense learned to live with their pain or discomfort and many times they are able to control this pain themselves despite conventional medicine’s failure to help them.

Dr. John K. Zawacki a gastroenterologist at the University of Massachusetts Medical Center says this about the Stress Reduction Center, "They’re taking people that the system is not helping. They’re taking the toughest patients and having significant outcomes" (Barasch 9).

The success rate is very high in the patients of the Stress Reduction Center when we consider the patients previous record as well as the circumstance they are under. Approximately three-fourths of their former patients have shown moderate to great improvement and after years out of the program, up to 90% of the class are still practicing some form of meditation (Moyers). These statistics show that alternative medicine can touch even, and especially, those who are the hardest to treat.
TRADITIONAL MEDICINE OF OTHER CULTURES

Chinese Medicine

The 2,500 year old tradition of Chinese Medicine was first introduced to Western Medicine a little over 20 years ago when China opened its doors to the modern world (Barasch 8). When James Reston a reporter for The New York Times had an inflamed appendicitis while covering Nixon’s visit to China in the early 1970s, he was seen by Chinese doctors. Reston was surprised that his post-surgical pain was relieved by a series of strategically placed needles—called acupuncture. The journalist was so impressed by his pain-free recovery that he wrote about acupuncture and introduced acupuncture to the Western world (Perrine 65).

Much time has passed since Reston’s article, and many articles and research have since been done on acupuncture. One of the most prominent advocates in the field of Chinese medicine is Dr. David Eisenberg an internist and professor at Harvard Medical School. Dr. Eisenberg was the first medical student to study in China after China has opened its doors to foreigners. Although he is no longer a formal student of Chinese medicine, Dr. Eisenberg continues to study Chinese medicine and culture.

In Dr. Eisenberg’s twelve years of experience in China
he has learned much about Chinese medicine and its role in healing. Dr. Eisenberg was a student of acupuncture, Qi-gong, massage, and herbalism. Although he does not know how these forms of medicine work (the physiological mechanisms), he admits that they have been helpful for the many Chinese people that use it. Dr. Eisenberg and other researchers are currently asking fundamental questions about Chinese traditional medicine and its effectiveness: Does it really work? Do these practices have more healing qualities than simply supporting its patients with the cultural belief that it does (Kaptchuk A4).

Since his return to the United States, Dr. Eisenberg has continued his interest in Chinese medicine. As a professor at Harvard Medical School Dr. Eisenberg has even implemented a course on unorthodox medicine, including traditional medicines such as Chinese medicine. Eisenberg says that the purpose of the course is to introduce alternative forms of medicine to the medical students, as well as encourage them to think rigorously about them (Barasch 8).

Interest in Chinese medicine has grown considerably over the years since its introduction to Western Medicine. Acupuncture in particular has been of great interest due to its anesthetic ability. It is a valuable procedure in that it does not require drugs which has the potential to cut
health care costs considerably. Acupuncture is also safe for those at high risk of addiction and there is no fear of overdose when using acupuncture as an anesthetic. Acupuncture is also beneficial to patients that may be allergic to some forms of anesthesia, but need the anesthetic effect acupuncture can provide. Acupuncture can also be used in concert with an anesthetic to cut down the amount of anesthetic introduced into the body. Because of these beneficial uses of acupuncture, it has become very widely accepted in the Western Medical community. Despite its acceptance and the acknowledgement that it indeed works, it is estimated that only 2,000 to 3,000 physicians use acupuncture in their practice (Findlay 70).

Because acupuncture has had such great success in the United States and abroad, it has been the topic of some scientific research. The Chinese believe that the body contains different bioelectric pathways or meridians, and through these meridians the qi (or ch’i) flows (Findlay 69). The qi is what is called the vital energy or the life force of a person. When symptoms or ill health is apparent, the qi is thought to be stuck. The idea of acupuncture is to stimulate these pathways and to free the qi. It is obvious that the West is not yet ready to adopt such a philosophy, much less rely on this philosophy as a form of medicine. However, it could not be denied that acupuncture does work.
Western scientists believe that the acupuncture needles somehow trigger the release of endorphins. Endorphins are used to block or override the feeling of pain and the transport of such a message (Findlay 69).

Qi-gong and herbalism are forms of Chinese medicine that have not been as widely accepted in Western Medicine as acupuncture has although they are very commonly used in China. Qi-gong is a procedure that utilizes the qi or life force/vital energy that every person possesses. They animate qi by comparing the chi to a ball of energy that can be moved throughout the body and concentrated in the area of ailment in order to heal an inflicted person. The doctor that is practicing Qi-gong has been taught how to efficiently move the Chi throughout the body and is able to heal the patient by doing so (Lili 21).

Herbalism is not exclusive to the Chinese culture. In fact many other cultures employs herbalism, for example the Indian culture uses herbalism within Ayurvedic medicine. It is also seen in other cultures such as Latin America with the curanderas or Medicine Women, Brazil and Venezuela with the Yanomami and Kayapo Medicine Men, Kenya with the Maasi, and with the people of Madagascar to name but a few.

Herbalism is perhaps the oldest form of medicine around. Much of the information about medicinal plants or herbs have been handed down over the centuries by ancestors
that have researched them. It is known and accepted that there are proven medicinal qualities in some plants. This is exemplified by the sheer number of medicinal products available as drugs that were derived from plants in the Rainforest, in fact over 25% of the drugs on the market plant based (Wallace 37). This 25% of pharmaceutical drugs comes from only 1% of the world’s 250,000 flowering plant species that have been examined for their medicinal properties and among this 1% are the plants used to derive the cure for childhood Leukemia (vincristine and vinblastine) amongst many other illnesses (Wallace 38).

Dr. Michael Weiner, an ethnobotanist from the University of California at Berkeley, remains committed to the belief that, "Herbal medicine--particularly ethnobotany, the study of how other cultures have used plant medicines for centuries--can play a vital role in helping modern society find alternative cures to disease" (Rosenbaum 76).

It is interesting and a bit ironic that many medical professionals still in the face of all of the given evidence give little importance to plants and the knowledge that many ancient cultures hold about those plants.

Tai Chi is most widely known as a Chinese martial art. Few realize Tai Chi can be a powerful meditative device, which is widely used as such on a daily basis in China. If one would go to People’s Square in Shanghai in the early
morning, one would find the park to be filled with people practicing Tai Chi. In fact, it is said to occur in most parks in China in the morning hours and it is used in this circumstance as a meditative or centering tool (Moyers). Because Tai Chi is the study of movement, more specifically the movement of qi, the people that practice Tai Chi are more likely to be in better physical health. The positive effects of Tai Chi may be attributed to the meditative benefit, which means that "centering" may have an immunocompetent factor to it. But one certainly cannot overlook the simple benefit of breathing the fresh outdoor air every morning while doing a bit of low impact exercise.

**Ayurvedic Medicine**

Ayurvedic medicine, like Chinese medicine, is an ancient medicine. Ayurvedic medicine originated in India but spread to other parts of Southeast Asia. Ayurvedic medicine is thought to be between 4,000-5,000 years old (Coupon 80). It has been the main source of medical knowledge for the people of India until relatively recently. Ayurveda is thought to be the only available source of medicine for many of the rural people of India. Those that live in more urban areas, particularly the more wealthy, are more likely to use Western medicine where available, which
is presently quite accessible in most urban cities (Coupon 80).

According to Carolyn Nordstrom a professor of Peace and Conflict Studies at the University of California at Berkeley that has spent a number of years in Sri Lanka studying the use of Ayurveda she has found that Ayurveda is also the prominent indigenous medical tradition in other parts of South Asia as well as in India (Nordstrom 963). Dr. Louis E. Grivetti a professor of Geography and Nutrition at the University of California at Davis believes that the initial westward spread of Ayurvedic medicine was when Indian trade was first established with Persia and Greece. He believes because of this the Ayurvedic influence is far reaching and thus it is difficult to discern its exact influence in other forms of medicine because the influence may be very diluted from its original form of medicine (Grivetti 23).

However, some of the links between Ayurvedic medicine and other forms of medicine can be a bit more distinct. For instance, Ayurvedic traditions are thought to have influenced Western medicine in some areas such as the use of skin grafting. Skin grafting is thought to have been one of the surgical techniques that European colonists learned from their exposure to Indian Ayurvedic medicine (Coupon 80).

The word Ayurveda comes from the Sanskrit words Ayus, meaning life or life span, and Veda, meaning knowledge or
science. Therefore, Ayurveda is translated as "the science of life" (Sharma 2633). The Ayurvedic tradition is based upon the biology of the individual according to three physiological principles or body types called doshas. These three body types (doshas) are vata, pitta, and kapha (Nicodemus 98). The Vata represents the body's motion or flow. Pitta directs all metabolic activities, energy exchange and digestion. And the Kapha represents structure, cohesion, and fluid balance (Sharma 2633). The goal of Ayurvedic medicine is to balance or equilibrate all of these doshas according to the individual with the use of herbs, massage, yoga, and meditation (Wallis 72).

The Ayurvedic knowledge and tradition of medicine has been handed down over the generations and is still used by many people in and around India. Although Western medicine has been made available to India, many of the people of India, like in China and other areas where the traditional medicine of the country is different than that of Western medicine, continue to use traditional Ayurvedic medicine because they believe more strongly in the power of Ayurveda. Perhaps tradition or the belief in tradition is more important than science to them.

However, unlike Chinese medicine Indian Ayurvedic medicine is only now gaining recognition, but certain aspects of Ayurvedic medicine are met with a bit more
resistance. The Western public’s knowledge of Indian medicine and/or philosophy was initially introduced to the public by the rock group the Beatles. The Beatles had a brief interest in Maharishi Mahesh Yogi who had taught them meditation and Indian philosophy in the late 1960s (Barnett 188). Today Ayurveda is best known due to the popularity of the Dr. Deepak Chopra and Maharishi Mahesh Yogi. Chopra and the Maharishi first met in 1985 and since they have collaborated in the establishing the company called Maharishi Ayur-Veda Products International (MAPI) (Franklin 80). This new resurgence is focused around TM (Transcendental Meditation), herbalism, yoga, and different types of massage.

Dr. Deepak Chopra was born in India and graduated from the All-India Institute of Medical Science, which is a prestigious Western style medical school (Winters 44). Dr. Chopra then moved to the United States and has since had a successful career as a Western doctor. As an Endocrinologist Dr. Chopra has taught for several years at Tufts and Boston University. He then became chief of staff at New England Memorial Hospital (Franklin 80).

Over the years Dr. Chopra grew increasingly disillusioned with Western medicine. Although he retains a great respect for Western Science and medicine, Dr. Chopra believes that Western Medicine has great limitations. He
says, "I’m as much a mainstream doctor as anyone. I think that modern medicine handles traumas, acute infections, and certain kinds of cancer very well. But that leaves big gaps" (Franklin 80). Dr. Chopra realized that Western medicine was often treating the symptoms, but were at times ignoring the major problems,

Every day a physician sees patients who have undergone some devastating cancer treatment that has been declared a success because the cancer cells are now gone, disregarding the weakening of the entire body, the looming danger of recurrent cancer caused by treatment itself, and the lasting fear and depression that so often comes with the cure. To live in constant fear, even without cancer in your body, is not a good state of health (Franklin 80).

The Ayurvedic tradition believes strongly in the mind/body connection. That in order to be healthy you must treat the body and the mind, which many would argue are inseparable. This is why they choose herbs, healthy diet, massage, yoga, and meditation as forms of medicine. Ayurveda is not only used in curing certain ailments, but rather it is believe to be most effective if it was continuously used as a preventative medicine and a device to keep our bodies healthy.

Dr. Chopra says that he does not make any incredulous claims regarding Ayurveda. The main goal says Dr. Chopra is to attain a healthy mind/body within realistic parameters,
Of course we lose patients. Patients die at Harvard Medical School, the citadel of citadels. Our emphasis is on the quality of patients’ lives. If we can get rid of someone’s pain and make him feel emotionally secure and spiritually grounded, then more likely than not the quality of life will also be affected (Winters 44).

Ayurveda has seen many different types of responses. Some follow Ayurveda exclusively, but even Dr. Chopra would disagree with this method. He believes that the key is to use Ayurveda in cooperation with positive aspects of Western medicine. John Canary an endocrinologist at Georgetown University and a consultant to the World Health Organization’s Traditional Medicine Program says that there is no question that good things have come out of Ayurveda. He goes on to say that the West would be foolish to ignore the large pharmacopoeias accumulated by Indian, Chinese, and other forms of traditional medicine (Franklin 82). George Solomon agrees that Ayurveda has much to offer Western medicine, "The Ayurvedic idea that individuals have differing innate vulnerabilities to disease has gained a foothold in modern medicine" (Franklin 82).

However, Ayurveda is not without its skeptics. Some skeptics such as William Jarvis president of the National Council Against Health Fraud and Andrew Scheik editor of JAMA, believe that Dr. Chopra and his colleagues are only out to cajole the public into paying large sums of money for
what the skeptics claim do not work (Barnett 188) (Winters 45).

There have been many accusations by Western medicine, but no one has proved that Ayurvedic medicine does not work. On the other hand, no one has given strong scientific research that Ayurvedic medicine does work either. However, there are many satisfied users of Ayurvedic medicine would say it works, as well as many people Indians that continue to use it today. Ayurvedic medicine like all forms of alternative medicine such as acupuncture must provide many studies that prove its usefulness before Western medicine will accept it as accredited medicine. Some would argue that it is a biased action on the side of Western medicine, and some would say that it is out of concern for the safety of its patients. As for me I have not come to a firm stance on the issue of the bias within the medical system, though I would be a fool to assume that the medical system in infallible.

Ayurvedic medicine like Chinese medicine and many other forms of traditional medicine, is deeply rooted in cultural and religious beliefs, which some may extend to compare it to Christian faith healing. Until it is proved otherwise, we may consider Ayurvedic medicine, as well as the other forms of traditional medicines to different countries, is a mystery. Or perhaps they are an application of the
principles of psychoneuroimmunology. Until more research is done, the mechanisms behind these forms of medicine and healing are a mystery.

THE CURRENT USES OF COLLABORATIVE MEDICINE

Although the use of collaborative medicine is not a new idea, it is not widely valued or applied. However, the ideas of collaborative medicine are currently being put to use in some of the more progressive institutions. Courses on alternative medicine are currently being offered the medical students of Harvard, Georgetown, the University of Louisville, the University of Arizona, and the University of Massachusetts in Worcester. Dr. David Eisenberg, of Harvard Medical School, who initiated the Harvard program says, "We’re seeking to train physicians and nurses to deal responsibly with patients who request or demand access to these therapies" (Sabatino 70). This is no doubt in response to the growing number of people that are looking for alternative methods of healing.

It is comforting to know that some medical schools are responding to the public’s interest, and are opening up to the idea of collaborative medicine. This can partly be attributed to some of the professors of medicine, like Dr. Richard Frankel of Highland Hospital, Rochester, NY. who
made such courses possible. Dr. Frankel states, "I believe the way to train compassionate, caring physicians is to be compassionate, caring teacher" (Sabatino, 70).

Since the introduction of medical school courses relating to alternative medicine, a growing number of medical schools, and more specifically medical students, are becoming interested in the area of collaborative medicine and its future. For example, the University of Minnesota Medical School, which is known to be one of the more conservative, technology and research orientated schools, is holding a student organized weekend symposium solely for the purpose of investigating the realm of psychoneuroimmunology and alternative medicine.

The medical community is beginning to make strides in their investigation of Collaborative medicine and healing. This is only the beginning according to Dr. Candace Pert, the keynote speaker at the symposium held by the students of the University of Minnesota Medical School. Dr. Pert believes that research into the field of psychoneuroimmunology and the study of collaborative medicine are in their infancy. She believes that we are in the midst of a revolution (Hall 71).
MY OPINION ON THE REVOLUTION

I will be attending the University of Minnesota Medical School in the fall of 1996. I am very pleased to be going to medical school because I have wished it since I was a child. As I have grown older I have seen that the perfect career of mending people is not easy. When I was younger my desire to be a physician was similar to Holden Caufield's dream of being the catcher in the rye--to catch the children before they fell from the cliff. My ideas of being a physician have since changed and are now more realistic. However, I am not realistic to the point of not taking chances. Many people consider the practice of holistic or collaborative medicine a risk both financially and emotionally, despite the obvious benefits and impressive results. It is a risk that I am willing to take because I believe that it is what is needed in the medical system and I believe that it will make a difference. My strong belief is that collaborative medicine is beneficial as a preventative medicine as well as a therapeutic medicine. I do feel that a holistic practitioner is a bit like the catcher in the rye that Holden Caufield dreamed of being. But instead of catching the children before they fall, good doctors are careful to catch them before they are on the path to falling from the cliff.
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