

Spiritual Health: Body and Mind Interaction

Unfortunately, medical science of West failed to grasp the reality that body and mind too can have such an interaction as with matter and energy and that they too can simultaneously exist together. Therefore, even when there was obvious evidence of mind influencing the body we continued to ignore the interaction. For example, consider the Placebo effect *ie.* mere thought of taking a medicine can produce the same effect of the medicine in a patient. This is an example where mind can have a healing power. It is unfortunate that we use the term “Dummy Pill Effect” just to discard this effect.



“A woman who conquered her cancer through meditation” -a newspaper report

This is a story of a woman who conquered her cancer through meditation. I wrote this story nearly 20 years ago, based on a case report published in a Western medical journal at that time, to a Sinhala language newspaper in Sri Lanka.



Changing Western Health Model

What is your reaction when you see a story like this? It is one of scepticism, because we don't have an explanation to such a phenomenon in the Western health model we practice today. This health model we follow has no provision for phenomena based on body mind interaction. The Western system we follow today is what is called Biomedical or Mechanistic Health model, and Rene Descartes of 17th century was the architect of this model. He proposed the philosophical separation of body and mind which lead to the concept of Body Mind Dualism. For him, body and mind were two separate entities with no interaction. Those who follow the Western system in 21st century still believe the same model.

What happened to us as a result of following this model so faithfully? Western medicine closed off the entire domain of body mind interaction from legitimate scientific inquiry. The result is what we see today. When we see a

story mentioned above in the news paper, we have no explanation. So we have to dismiss such stories only as anecdotes.

A similar situation existed in Physics in seventeenth century. At that time subatomic particles like protons neutrons and electrons were thought to be solid particles. But, in the last century scientists found that these particles can exist either in solid form or in wave or energy form simultaneously. They saw an

interaction between matter and energy. This seemed impossible at the beginning. Two contradictory physical states seemingly existing together. But, scientists ultimately had to come to terms with this reality. This was the basis of quantum theory. Quantum Theory explains the dual nature of matter.

Mind Heals or Causes Illness

Unfortunately, medical science failed to grasp the reality that body and mind too can have such an interaction as with matter and energy and that they too can simultaneously exist together. Therefore, even when there was obvious evidence of mind influencing the body we continued to ignore the interaction. For example, the Placebo effect-*ie.* mere thought of taking a medicine can produce the same effect of the medicine in a patient. This is an example where mind can have a healing power. It is unfortunate that we use the term “Dummy Pill Effect” just to discard this effect. Mind can also produce the opposite effect of

healing – *i.e.* causing illness. A woman is more likely to develop a breast cancer after her husband's death. This brings us to the question of how mind influences the body. One clear mechanism is through immune modulation. Depression produces immune suppression through its effects on Natural Killer (NK) cells of the immune system. These NK cells are responsible for host defence protection mechanisms. This is how widows become more vulnerable to cancer.

Interesting thing is that as much as mind can have an effect on the body, body or bodily activities too can influence the mind because this interaction is two way. We know that if we take a walk when we are angry, the anger subsides.

So this shows that a bodily or a physical activity can influence the mind. You may have experienced it yourself though you may not have thought of such an interaction. People who take regular physical exercise have better concentration of mind and have better output of work. Research has established this fact. This brings us to an interesting point. Jogging and meditation have the same effect on mind - the concentration of mind. How strange? This proves the interaction between body and mind again.

Physical Exercises, Meditation & Immune System

This brings us to subject of immune enhancement and cancer prevention through physical activity. Earlier we saw how immune suppression caused cancer. Physical activity produces immune enhancement by increasing the activity of NK cells. This is the mechanism through which physical activity prevents cancer. Those who take regular physical exercise are less prone to cancer. Meditation too enhances immunity, again through increased activity of NK cells. This is interesting – both meditation and physical exercise produce same effect on immune system, indicating the interaction between body and mind. So it appears that the concentration of mind is at least one common mechanism of immune enhancement during meditation and physical activity.

Immune modulation is not the only link showing interaction between body and mind. Neuro endocrine systems too can be involved. Sinus arrhythmia on an ECG is a normal phenomenon of beat to beat variation of heart rate, especially found in healthy adults. This is a function mainly dependent on vagal tone. Enhanced heart rate variability



indicates an optimum autonomic balance in the body and is considered to be a sign of good health. This is impaired or lost in cardiovascular diseases. A study published in the British Medical Journal showed that meditation and Ave Maria recitation, both in fact enhance the heart rate variability. This indicates the health promoting effects of meditation and other religious practices through their effects on autonomic nervous system. These practices restore what is called inherent cardiovascular rhythm described by Mayer over hundred years ago. So the nervous system too seems to be a link between body and mind.

Power and Biology of Belief

This brings us to a totally new area of neuroscience – the Psychoneuroimmunoendocrine system (PNIE), also called Psychoneuroimmune (PNI) system. This is a functional system that provides a scientific explanation to body mind interaction. This system came into recognition only during the last two decades. If the interaction between body and mind is so close and so obvious why did we take such a long time to recognize this? It is because we haven't had a plausible objective mechanism to explain the connection between body and mind. As a result, we continued to follow the body mind dualism of 17th century preached by Descartes. However, during last few decades medical scientists searched for a possible link between body and mind. Discovery of this system was not therefore an accident but the result of an intense search. In this system, Immune, Endocrine and Nervous systems act as the link between body and mind. PNIE or PNI system is now well established. Recognition of this system allows us to accept the body mind interaction on a scientific basis. What we don't know yet is the exact mechanism or the neuroimmunochemistry of how this system works. But, now we know for sure that the system exists. It is interesting in this context to read a review which came up few years ago, in the International Journal of Dermatology titled "Can the brain inhibit inflammation generated in the skin?". This describes how alpha Melanocyte Stimulating Hormone (MSH) which is a centrally acting hormone, produces an anti inflammatory effect on the skin. Alpha MSH which is produced in brain, acts centrally via the nervous system and produces an anti inflammatory response in the skin. The state of mind influences the level of MSH in the brain and this explains the link between mind and skin.

Recognition of PNIE system has resulted in greater interest in body mind research. There are now mind body centers in some US medical schools, Body Mind Institute at Harvard medical school is one such example. Herbert Benson at Harvard is the pioneer in this field. He is the one who demonstrated what is called Relaxation response during meditation. During this response there is lowering of blood pressure and reduction of oxygen consumption among many other physiological changes during this response. What is important is that it is he who first demonstrated that this response can be voluntarily elicited and that it has the opposite effect of stress response which is involuntary. He in fact said many religious activities can elicit this response. He wrote a book titled "Power and Biology of Belief" and suggested a wisdom in prayer and meditation.

Spiritual Health

There is now a lot of interest on the subject of meditation. This seems to be a way to manipulate body mind interaction in a favourable direction to achieve better health. This brings us to a whole new dimension in health – "Spiritual Health". Spirit is something difficult to define, yet all of us can perceive it. Faith, beliefs, emotions, aspirations all constitute the spirit of an individual. Some people believe that it is the spirit that distinguishes humans from other animals. Research has now established that people with deep religious commitments have better health and live longer. A study done in California showed that church goers live longer independent of other confounding factors.

Evidence Based Medicine Journal in Dec 2000 published a systematic review of trials on what is called distant healing practices such as prayer and religious activities. Conclusion was that such practices are effective in improving patient outcomes.

Inner Resources of Healing

More and more physical diseases are now becoming amenable to cure through interventions on mind. Effect of mind on skin diseases is one good example. Viral Warts can be made to disappear through mere suggestion during hypnosis. How does this happen? Probably via the process called immune modulation or effects on blood supply. Eczema is another good example. It is common knowledge that stress worsens eczema. Similarly relaxation

and meditation improve this condition. You have already read of the role of alpha MSH hormone which has anti inflammatory activity on the skin. Psychological interventions are being increasingly tried out with success in conditions which were not thought to be amenable to such treatments earlier. Infertility and diabetes are only two such examples which are now being helped through psychological intervention. Diabetic patients who meditate have been able to reduce their medication. Relief of pain through meditation is another good example. The author of the book titled "Full Catastrophe Living", Dr Kabat Sing describes how he uses Buddhist meditation technique to relieve intractable cancer pain at Massachusetts Hospital's Pain clinic in the USA.



What we now need is to acknowledge the fact that patients have what is called inner resources of healings or inner healing capacity. This is the power of mind in healing. No physician will be able to practice medicine if not for this inner healing capacity of their patients. A surgeon who operates on his patient would only bring the skin and other cut tissues together during the operation. Surgeon has no power to make the wound heal

and the healing power is there only within the patient. Unfortunately, very few Western medical doctors realize this fact and as a result show no gratitude to their patients for healing the wound they create during the surgery. The challenge we face in the 21st century is to find ways and means of enhancing the healing powers of mind. As the evidence point out, spiritual practices certainly seem to be one way of promoting such powers of mind. Such an assumption would not be unscientific any more in view of the mounting evidence in this direction now.

Chemical Dependant Western Model

A theme issue of the BMJ few years ago was titled "Too much medicine?" In the opening editorial, the editor himself addressed the subject called medicalization of life. This editorial rightly predicts a future generation of Western medical doctors who would demedicalize life and hand back powers of healing to the patients. Though he does not elaborate on how we could hand back these healing powers, it is obvious that it has to be through empowering the minds of our patients. Empowering the mind should not be looked upon as an alternative to the orthodox medicine, rather a complement to it. This will help shift

the patients from their total dependence on doctors and medicine. So there is some truth in what Ivan Illich says. He is an extreme critique of modern medicine and he says modern medicine has destroyed the human capacity to deal with pain, sickness and death. Isn't this true to some extent? I leave it to you to ponder. Can we hand back the lost inner healing powers to the patients in the present Western health model we practice? Answer definitely is "No", because there is no recognition of body mind interaction or a spiritual dimension in health in the present model.

So we now have virtually come to the end of the road with this model and certainly need to go in a new direction in health if we are to progress in medicine. In the US, people now spend more out of pocket, on complementary therapies than on orthodox medicine, showing their frustration probably. Age adjusted cancer mortality has remained unchanged over last decade or so despite all the advances and the investments made in the diagnosis and treatment of cancer.

Biophysiosocial Health Model

The new direction should be one that recognizes the 21st century understanding of body mind interaction. Two decades ago Dr George Angel from the USA proposed "Biopsychosocial health model" to replace the present "Bio medical health model" which has no provision for a spiritual dimension. He probably acted on intuition, as there was not as much scientific evidence at that time as we have today. Around the same time there was a similar thinking in the East and Dr Bisht in India proposed to the WHO to include a spiritual dimension in the definition of health. He called this the fourth dimension of health. So the proposed a new WHO definition which should read as follows:

"Health: A state of complete physical, mental, SPIRITUAL and social well being and not merely absence of disease or infirmity".

Mind Power and Pharmaceuticals

This in fact marked a significant milestone in the recognition of body mind interaction in health. What we need today is a health model which recognizes this new dimension – the Spiritual dimension of health. So we need to replace the seventeenth century Bio Medical health model with a "Medico Spiritual" health model. Such a model would allow us to recognize body mind interaction on a legitimate scientific basis and would help reduce patients' total dependence on doctors and their medicine when they fall ill. Patients will be able to understand that they too can

play a role in healing by enhancing their own inner power of healing.

Such an approach would also open up totally new area of research for the medical profession not hitherto explored. Race for discovering new drugs based on the emotional peptides released from the brain and nervous system during mindfulness and concentration of mind seems to have already begun in the West. We in the East can teach our patients how they can train their own brains to release the chemical which will be marketed as costly drugs when synthesized. Therefore, Mind Body Counseling would soon constitute an essential part of therapeutic armamentarium of western medical practitioners.

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