A SYSTEMIC PARADIGM FOR THE (MENTAL) HEALTH PROFESSION

by

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INTRODUCTION

1.1 MOTIVATION FOR STUDY

From the beginning of time, human beings have cared for other human beings in some fashion, recognising the need to help those in physical or social distress.

Historically, the motives for giving care and the kind and quality of care have ranged over a wide spectrum. Assistance may have been inspired by desire for self-preservation; at the other end of the scale it might be given because of a love of human beings motivated by a love of God. Often fear has been the influence that forced men to make provision for others; often too it has had a kindlier source. If motives have varied, so too have the factors that determined both the quality and the quantity of care throughout history. For example, the economics of the times and the characteristics of a culture have been significant in influencing developments. An agrarian society is less able to provide help in the form of funds than a technological one. Understanding of illness or poverty has varied greatly depending on whether or not mysticism and/or superstition were characteristics of culture. The amount and kinds of care given to people in any culture, is likely to be affected by the degree to which that culture accepts democracy and respects the dignity and inherent rights of the individual (Brock 1971).

"The first wealth is health", wrote the poet/philosopher Ralph Waldo Emerson in the 19th century. Sarafino (1998) is of the opinion, that although people have probably always valued good health, it seems that today people are becoming increasingly health conscious. According to Sarafino, this heightened consciousness generally reflects two beliefs: that we can do things to protect our health and that being sick is unpleasant… (If a person's health problem is serious, it may be distressing to the patient and his/her family and friends).

For many people, our health—particularly our mental health—is often taken for granted until something goes wrong. Only then do we realize just how important health is to our sense of fulfilment and happiness.

From this discussion, it seems that the concept 'health' is a broad term, encompassing both physical and mental aspects. What is meant by the concept 'health'?

1.1.1 Definition of health

In the past, scientists have defined health simply as "an absence of disease or illness." However, in 1948, when the World Health Organization (WHO) was founded the following definition of health was established: "A complete state of physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization 2001).

Tsai (2001) states that in examining this definition, we realize that individuals can at once be relatively healthy in some aspects of life (e.g. normal blood pressure of 120/80 mmHg), but unhealthy in others (e.g. suffering from depression). Thus, being healthy is not an "all-or-nothing" principle.

The preceding definition of health before 1948 (i.e. simply as "an absence of disease or illness"), seems to be referring to disease found only within the physical body. Sarafino refers to our body as our physical being, including our skin, muscles, bones, heart and brain. He stated that the mind refers to an abstract process that includes our thoughts, perceptions and feelings. Although we can distinguish between the mind and body conceptually, an important issue is whether they also function independently?

According to WHO, mental health has been defined variously by scholars from different cultures. Concepts of mental health include subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependence, and self-actualization of one's intellectual and emotional potential, among others. From a cross-cultural perspective, it is nearly impossible to define mental health

comprehensively. It is however generally agreed, that mental health is broader than a lack of mental disorders (World Health Organization 2001).

According to Visser (1990:23), the concept of health is a multidimensional one relating to social, psychological, environmental and cultural factors, and cannot be interpreted only as the absence of symptoms. He states that, "…health can be seen as a means of becoming a 'fully functioning' (Rogers), 'self actualizing' (Maslow) or 'resourceful' (Rosenbaum) person and illness as an obstacle to such fulfilment." Du Toit (in Visser, ibid) recommends that "health should be seen as a continuum of wellness ranging from poor health to complete physical and mental wellness."

Physical health and mental health

It can be said that people value their health, in different ways, in order to survive and deal with life. Physical health is understood more to the average person to be imperative for their 'survival'. Mental health seems more 'distant'. Is this because it isn't as important? In the researcher's opinion, it may be because understanding mental health seems more complex. It is usually relatively easy to assess physical health by taking health status measurements of the body. Blood pressure, temperature, and cholesterol levels are all precise means by which we can tell if the physical components of the body are healthy. However, mental and social components of health are much more challenging to assess. Thoughts and perceptions of internal states are subjective and difficult to quantify.

In man's quest for physical health, marvellous scientific achievements have been made. Examples include the kind of advanced surgery available, immunisations against deadly diseases and transplants. There have been major medical breakthroughs with various socio-political educational and legal structures and systems implemented to aid people in these realms. Yet the paradox is that the same human mind that has made all these dramatic discoveries and advances, is also a major concern of/for the mind. It seems that the tremendous advances in keeping man 'alive and well' have not addressed the mental health dimension to the same degree.

As is evident through many avenues ranging from religion to mysticism to theology, one of man's major quests through the journey of life is to understand the human's subjective emotions and feelings. In a scientific world where things are defined in terms of 'empirical' and 'objective' terms, this make understanding feelings and emotions difficult as they cannot be quantified and objectively measured. This may be a reasonable explanation as to why the advancements made in understanding mental health are lagging. However, various philosophers and theorists do attempt to make some kind of understanding and project this for people to 'test out'. Throughout history, philosophers and theorists have presented versions, instruments and models to illustrate how the mind functions. Examples of a few such theories and philosophers are; shamanism, witchcraft, quantum theory, Freud, Jung, Maslow, Rogers and many more from all different walks of life.

1.1.2 Health crisis

According to 'The Department of Health' (October 2004), AIDS and other poverty-related diseases like tuberculosis and cholera are placing a tremendous strain on South Africa's health care system, eroding attempts to improve the general health of South Africa's people.

"…the cost of medical services in South Africa has become alarmingly high" (Oliver in Visser 1990:3).

Visser (1990) remarks that it has become apparent how acutely sensitive people have grown in acknowledging the enormous financial drain that health care and our medical systems are putting on our government and all of us.

In Africa and South Africa, AIDS and other infections diseases are currently pandemic. "The demand for human services is on the increase throughout the world" (Van Delft in Du Toit, Grobler & Schenck 1998: foreword).

These in turn have produced tremendous pressures on health professionals. The result has been an even greater narrowing of the focus so that the physician and medical doctors only consider acute physical problems, investigating and treating

physical ailments; whilst psychotherapists and mental health professionals consider urgent mental and emotional crises, particular those where medication or short term therapy can be helpful.

In today's fast-paced technological world, there are often varieties of quick treatments for physical ailments. One way that the medical fraternity has dealt with mental complaints is where the 'emotional mind' can be controlled and manipulated by external 'treatments', such as anti-depressants, e.g. lithium, Prozac (Fluoxetine).

These treatments for physical and medical ailments have been much appreciated and it is not the intention of the researcher to negate either. However, 'external' treatments are not always beneficial in the long term for mental health. If anything, treatments for mental health take time and patience for maximum effectiveness.

Traditionally and indeed in past centuries, health care generally operated within the pathogenic realms, assuming that diseases are caused by physical, biochemical and microbiological agents (Visser 1990). Visser discusses this topic and states that in South Africa recent research conducted by the HSRC has shown that large numbers of South Africans suffer from psychosomatic illness such as respiratory problems, cardiovascular diseases and dyspepsia. "Research done by the HSRC has shown that 48% of patients of general practitioners complained about problems that were essentially emotional in nature and that they were mostly treated with medication" (Visser 1990:3). Visser continues by stating that, "...it must be clear enough that not enough attention is devoted to the emotional causality that forms the background to the physical symptoms of many diseases that patients complain about" (ibid).

One debatable concept of the influence of physical and mental/emotional links in 'disease' is in the area of stress. Humans experience stress (both positive and negative stress) all over the world. In terms of South Africa, Oliver (in Visser 1990:3) stated that "incidences of stress, insomnia, depression and chronic fatigue are very high among South Africans." Historically stress and illness have been addressed within the clinical medical fraternity. The chapter on stress in this thesis

will describe theory and practical ways that stress can be handled and reduced in a more holistic manner; where members from the mental health profession can proactively and contributively augment overall health.

1.1.3 Advances in understanding physical and mental health

In more recent years, since the recognition and reflection of the importance of mental health in the WHO's definition of health (i.e. as "a state of complete physical, mental and social well-being"); this definition has been given sharper focus by many huge advances in the biological and behavioural sciences. These in turn have broadened our understanding of mental functioning and of the profound relationship between mental, physical and social health. "From this new understanding emerges new hope" (World Health Organization 2001).

The World Health Organization published an article on 'Mental Health: New understanding, New hope', in the 'World Health Report (2001)' , stating that "Advances have occurred not only in our understanding of mental functioning, but also in the knowledge of how these functions influence physical health. Modern science is discovering that, while it is operationally convenient for purposes of discussion to separate mental health from physical health, this is a fiction created by language. Most 'mental' and 'physical' illnesses are understood to be influenced by a combination of biological, psychological and social factors. Furthermore, thoughts, feelings and behaviour are now acknowledged to have a major impact on physical health. Conversely, physical health is recognized as considerably influencing mental health and well-being" (World Health Organisation 2001: http://www.who.int/whr2001/2001/main/en/chapter1/001b2.htm).

1.1.4 A Paradigm shift [1](*)

At the American National Institute of Health's Office of Alternative Medicine[2] in March 1996, Dr. James Gordon made the following remark to the press; "Thirty-five years ago the great microbiologist Rene Dubos suggested that we had begun to approach the limits of modern biomedicine[3], the surgical and pharmacological treatment of discrete disease entities. Though we can still appreciate the great power of this approach in curing infections and treating acute, life-threatening illnesses, we have also begun to see how difficult it is to use these methods to treat a variety of chronic illnesses." He continues and part of his discussion is the idea that we have begun to become painfully aware of the side effects and overuse of once promising therapies
(Gordon 1996: http://www.cmbm.org/resources/oamreport.htm).

Kabat-Zinn (1990) stated that from his perspective medicine was expanding its own working model of what health and illness are and how lifestyles, patterns of thinking and feeling, relationships and environmental factors all interact to influence health. He declared that a new model was needed that explicitly rejects the view that mind and body are fundamentally inexorably separate. "In its place medicine is presently seeking to articulate an alternative, more encompassing vision for understanding what we actually mean by 'mind' and 'body', 'health' and 'disease'. This transformation in medicine is sometimes referred to as a paradigm shift, a movement from one entire worldview to another" (Kabat-Zinn 1990:151).

(*) Note that when a word has a number with it, the term/concept will be explained numerically in the glossary (Appendix F).

Most of us are attuned to the concepts of Western medicine: we recognize the rationale behind the use of scalpel, antibiotics, plaster cast and anticancer poisons. We see the results of the use of artificial kidneys, cardiac valve replacements and laser beam treatment of eye disease. However it does seem that westernised thinking is becoming increasingly aware of the healing traditions of different cultures and of approaches that have previously been ignored, neglected, marginalized, or scorned within certain cultures (La Torre 2001).

For Miller (1991), and many others, among the most interesting of all the healing disciplines are those that produce a physical change by focusing on mental processes.

According to Miller (1991: http://www.drmiller.com) these represent examples of the psycho physiological approach to disease. He states that "Most people recognize that such diseases as asthma, ulcers and migraines have some psychological connections" and discusses why he feels the psycho physiological fails in some cases and yet succeeds in apparently identical ones. According to Miller (ibid) one thing is clear: "All these approaches draw upon the psychological resources of the patient." The cooperation of the "patient" is paramount. In other words, rather than simply manipulating the person's physical structure; inner, neural processes are enlisted to aid in the fight against the disease. Somehow, changes in the mind are ultimately translated into molecular change.

Accordingly, the researcher acknowledges that the consequence of thoughts may be influential in ultimately translating into physical effects; albeit a recursive[4] process.

1.1.5 Motivation for thesis

The motivation for this thesis is to show by literature study that although each fraternity (medical and psychological) is well developed; if we place the two together, we will be evolving an additional dimension to health, being a lateral dimension, encompassing the entire segregated models into one comprehensive combined model. By adding the mind and body approach together, we are co creating a holistic health system.

This thesis shows the advantages of understanding and working with the physical, mental and social dimensions of human beings in a systemic way towards optimal health care. It demonstrates that the mind and body are not separate entities; but actually different aspects of the same phenomena.

An important motivation of this thesis is to demonstrate how the social work profession in the health care field is optimally placed in one of the best positions to lever this view, implement and practice this systemic approach to health care.

1.2 AIMS OF STUDY

The foremost aim of this thesis, by means of a literature study, is:

To actualize the concept that mental health is fundamentally linked to physical health and visa versa.

To demonstrate how the combination of two well developed areas of health (namely physical health and mental health) can be combined to create a systemic approach to more holistic health care.

Once the evidence of the importance of this mind body interaction has been established and contemplated; the subsequent aim is:

To demonstrate how social workers and other helping/caring professions in the health care field should take cognisance of this and find ways in which to include this 'new way of thinking' into their daily work and lives.

[A note to be considered is that this literature study in itself is not intended to prove scientifically the mind body connection. It is to follow the aims above: that is to inform, actualise and acknowledge the increasing knowledge and interconnectedness in this area; and to demonstrate how social workers should become more involved in this health care field].

1.3 OBJECTIVES OF STUDY

- To demonstrate the interconnected relationship between mental and physical health.

- To understand the concepts of the mind that is relevant to understanding the mind/body connection.

- To understand how the mind could influence health.

- To understand a working model and epistemology[5] in which to work from.

- The implications for health care professions and in particular social workers working in the field of health and medical care.

1.4 RESEARCH DESIGN

This study is a literature review.

Mouton (2001:179) describes literature reviews as "studies that provide an overview of scholarship in a certain discipline through an analysis of trends and debates." A review of literature is essentially an exercise in *inductive reasoning*, where the researcher works from a sample of texts that is read in order to come to a proper understanding of a specific domain of scholarship. Mouton continues that a comprehensive and well-integrated literature review is essential to any study. He states that it provides a good understanding of the issues and debates in the area that you are working in, current theoretical thinking and definitions.

Explanation for literature study:
The researcher began this thesis with the notion of narrating a statistical quantitative research. As she progressed, she uncovered many paths within this discipline and was forced to choose only a part within, in order to focus this study into a tangible well-knit, descriptive document.

The systemic approach to health, from an alternate perspective is a dynamic, developing discipline, albeit relatively new to South Africa, as is also apparent by the lack of available native literature. Accordingly, the researcher deemed it necessary to elaborate on new terms, principles and concepts, in order to fully appraise the reader. The researcher felt that a literature study would provide the basis for future quantitative research, which would not be possible without these fundamental principles first being clarified and explained in detail.

The researcher narrowed the data acquisition to articles written in English only. Key word association criteria were used in the filtering of data:Behavioural medicine; Mind body medicine; Biopsychosocial model; Psychoneuroimmunology (PNI); Holistic health care; Systemic health care; Health Care and Social Workers; Alternative medicine; Complementary medicine.

The researcher used information seeking skills, where wide search criteria were used to verify information and narrow search criteria were used to pinpoint pertinent information. All information contained in this document has been critically analyzed and assessed

This literature study therefore introduces the ideas and concepts of a systemic mind body approach to health care- with special reference to social workers in the field.

The researcher maintained the purpose of looking for an overview of significant literature published on the topic.

The researcher also looked for the major concepts, conclusions, theories, arguments etc. that underlie this work, and looked for similarities and differences with closely related work.

The researcher collected the relevant information from international and local; periodicals, journals, TV programs, Internet, electronic data bases, books, popular media etc…

Information used was evaluated on the following basis:

- Material and information that was introductory in nature as apposed to more advanced work in this field.
- Written in English.
- Historical information to provide an understanding how this work came into being.
- More popular, well known authors in the field (or their names recurred in the literature).
- From references of articles that researcher found useful, researcher would obtain further readings.
- Articles that usually had some kind of evidence based literature in it, or data that backed- up its arguments.
- Whether the information was interesting, relevant, appropriate, and useful.

The researcher was mindful of the following, when evaluating literature and deciding what to use:

1. Is the article/literature ambiguous or clearly articulated? What is its significance (scope, severity, relevance)?
2. Does the literature explain the key concepts, factors and variables in a clear, concise way?
3. What are the strengths and limitations of the way the author has formulated the issues?
4. What is the author's theoretical framework (e.g. psychoanalytic, developmental, feminist)?
5. What is the relationship between the theoretical and research perspectives?
6. How does this information fit into this thesis?
7. Is the information up-to-date?
8. Does the information explain historical developments in this field?
9. What views need to be (further) tested?
10. What evidence is lacking, inconclusive, contradictory or too limited?
11. Is the analysis of the data accurate and relevant to the research title?
12. Why study (further) the research ideas?

The researcher was aware that many of the mind body concepts may be perceived by some readers as controversial.

The methodology utilised in this thesis is a Qualitative Approach.

Grobbelaar (2000:87) states that the Qualitative Approach developed from humanism, which is a "...school of thought that acknowledges the uniqueness and meaningfulness of human situations and behaviour." He further states that the topics that are researched are concerned with the human spirit, human behaviour and conduct, as well as human society. This thinking is congruent with the contents of this thesis.

1.5 SUMMARY OF THIS THESIS

Historically the trend in health care has been the domain of health care professionals such as doctors, nurses and other professionals from the medical fraternity. This created the separation between the mind and body, due to the diagnostic and treatment origins being segregated. This thesis addresses the idea that psychological processes have significant impacts on our physical health (and visa versa). It establishes the notion that health care needs to be understood holistically, from a broader systemic perspective, expanding the working model of health.

The second chapter of this thesis addresses the power of the mind and the connection between the mind and body. It establishes the importance of beliefs and perceptions and the huge effect this has on people and their lives. How we choose to perceive a situation will give that situation meaning. The meanings that we give to events usually depict how we will see and respond to that event, sometimes more than the actual event itself.
It explains the importance of the mind (psychological issues) as well as the body (physiological issues) when understanding and dealing with health and wellbeing.

The following chapter discusses the historical developments of physical and mental health; from Hippocrates and Descartes to a modern holistic approach and attitude.

Behaviour Medicine[6], explicitly recognises that mind and body are intimately interconnected and that an appreciation of these interconnections and their scientific study is an interdisciplinary field, uniting the behavioural sciences with the biomedical sciences; in the hope that the cross fertilization will yield a more comprehensive picture of health and illness.

The 'biopsychosocial model'[7] provides a theoretical framework, explaining how an awareness of biological, psychological and social process are all important in understanding disease and recovery, supported by systemic principles. The scientific research and practical implications of psychoneuroimmunology[8] (PNI)

takes this biopsychosocial model one-step further. It describes how thoughts, perceptions and emotions have interchangeable influences with brain chemistry, which in turn influences the body and neurological systems, particularly immune system functioning.

The concept that we all have an inner ability /intelligence to heal ourselves is also detailed. Miller (1997: 350) discusses this notion, stating that we all have "a healer within." He states that this inner healer can be awakened in order to participate in "our deep healing." He claims, "This vital essence has been with us since birth... Its function is to maintain homeostasis (internal balance). As humans, we can, through our ability to change our images and beliefs, enhance, or inhibit the power of this inner healer."

The concepts discussed thus far in the thesis are then demonstrated practically. The relationship between stress and health is examined and practical ways to maintain a healthier lifestyle is detailed. The researcher then introduces a South African company that is currently working in the field with the concepts of mind-body medicine and psychoneuroimmunology.

This led the researcher to find a philosophical container in which to hold the holistic mind body theories and concepts. Anderson & Carter (2003: 222) states, "Social work distinguishes itself by exploring the 'person-environment fit'. This is an area in social work where constructivism may prove supportive. Such an emphasis increases the likelihood that diverse voices and points of view are integrated in social work theory and practice."

Therefore, a constructive epistemology/ philosophy in which meaning is intimately connected with experience, is expanded upon. The mind/body theory and concepts are then linked to Constructivism and Personal Construct Theory (by George Kelly). Constructivism postulates that we all create and interpret our own meaning systems, which become our subjective realities. The link to mind body medicine is pertinent in that both constructivism and mind body medicine share similar ideologies about how realities are construed, and how this in turn effects treatment of disease and maintenance of wellbeing.

Cybernetic complementarities then expand our understanding of the mind and body connection in a monolistic framework, where mind and body are recursive partial arcs of a holistic health care system.

Constructivism therefore integrates eastern and western concepts, cementing all the concepts used in this thesis, in a holistic manner. It also helps us to understand how some of the mind body techniques may be working within the mind body realm. Given the unique needs of a changing and developing society, as found in South Africa, there is a need to be creative and find alternative ways to cope with our societal stresses and daily occurrences.

This is where the researcher feels that the social work profession needs to be involved in working and contributing to our health care services. The development of medical social work is detailed and the latest social work definition discussed. It is reveals how contents of the definition of social work are relevant and are a pertinent fit with mind-body approaches to health and wellbeing. The researcher debates the role of social workers in this field of health care. It is then proposed, in the detailed discussion, that social workers practising in this field should be known as Health Care Social Workers.

This field of holistic health care has many proposed strengths and implication, for both Health Care Social Workers and other health care professionals. It will naturally also present challenges that need to be considered and contemplated. The final chapter of this thesis examine these strengths and challenges and their therapeutic implications. The researcher concludes by demonstrating that the literature study on holistic mind and body approaches matches her objectives from the first chapter.

CHAPTER 2

THE MIND AND BODY CONNECTION

Introduction

The power of the mind can be discussed on many levels with different implications. This research will begin, in this second chapter, to explain how the power of the mind attributes and influences on our experience of the world around us. The interpretations that we choose to make about events in our lives contribute to how we understand and perceive these events and consequently how we choose to respond to these events. More specifically, this chapter examines the impact and power that the mind has in relation to our health and wellness. It begins to introduce and demonstrate, for the purposes of this thesis, the important bi-directional link and connection between the mind and body in understanding a holistic health care system.

2.1 The power of the mind

Miller (1997) discusses that in any given situation there are factors we can influence and those we cannot. He says we cannot change our family history and have little or no ability to recognise our genetic make up. He adds that we may not be able to undo previous physical trauma we have experienced. The damage produced by malnutrition or physical injury in childhood may be irreversible, and he continues to narrate that we cannot grow back amputated legs. However, he asserts that there are still other factors that can be changed. For instance, we can affect the level of stress in our lives and reduce distress. We can change the image we hold of ourselves and the beliefs we have about the world. We can resolve unconscious issues, including psychological trauma from the past. "The tools for doing these things aren't scalpels and drugs; however they are at least as powerful, since they work in concert with the most miraculous tools of all- the self- healing mechanism that have evolved over millions of years within our own bodies" (Miller 1997:52).

Miller states that there is evidence from both laboratory studies and clinical practice indicating that in most cases, people can be taught to reduce their stress levels through mental visualisation or learning mental skills that stimulate the immune system to fight infection or cancer. From his work in mind-body medicine he confirms, "I am convinced that our minds play a major role in a great many of the diseases that we humans are heir to, and may well be the most powerful tool we have for implementing health…" and "… if we are to heal ourselves and others it can be just as important to identify certain mental factors as it is to identify the physiological factors of disease. In fact this is a key factor to deep healing" (Miller 1997:7).

Albert Einstein exclaimed, "Imagination is more important than knowledge." An example would be if you imagine that you are parachuting from an aeroplane. You may feel scared, excited and queasy or whatever image your mind holds consistent with that event. The constrictions you may feel in your belly and the tingling feelings of fear that you may physically experience, are produced by glandular secretions in your body that are triggered by the mental image you created. Interestingly, there is no aeroplane or parachute in front of you, only ones that your imagination created. Another common example that most people often experience, is salivating when you smell or see your favourite food. Our thoughts somehow form images and patterns that usually create physiological and/or emotional changes, consistent with that image. Miller (1997) and Siegel (1988) state that one of the basic rules of imagery is that;
When an image is held in the mind, it will tend to elicit from the nervous system reactions that are consistent with that image. "Dramatic biochemical changes can be effected through the thoughts and images we hold in our mind" (Miller 1997: 34). These responses seem to be of an unconscious nature related to the connection between our mind and body. It is therefore not necessarily an event that has certain effects on us, but results of an image that we are holding in our mind.
Many researchers, including Miller (1997) and Siegel (1988), assert that when we learn the tools and methods to modify our inner images, we have the power to

change our inner chemical environment and thus to make profound healing changes in our life.

Therefore, it would seem that how we see things or do not and how we think about them and represent them to ourselves has bearing on how we cope with stress and illness.

Bittman (1999: http://www.mind-body.org/Placebo%20Power.htm) exclaims, "It basically boils down to this - your perception of life (to a great degree) determines your health." To explore this concept he discuses the issue of "…the glass that's half-full or half-empty directly impacts your ability to maintain wellness."
Miller (1997:127) concurs that the difference between the glass being half-full or half empty is not 'out there', but it is within us. "It is in the way (that) we construct our image of what's out there and our relationship to it." He says that although this concept may seem incredibly simple, it is nevertheless a crucial one. "Our interpretation of our relationship with our environment impacts us on many levels." He continues by discussing numerous studies conducted which provide "convincing scientific support" for the notion that 'seeing the glass as half full' can actually keep you healthier in the face of stress. He affirms that the "attitudes and beliefs stored in your deeper mind can help protect you from such ailments as ulcers, migraine headaches, high blood pressure, as well as emotional and addictive problems. Deceptively simple and subtle, the 'half-full' principle is enormously powerful" (ibid).

2.2 Physiology

A class of biochemical molecules called endorphins and encephalins govern a human beings tolerance to pain. They are produced in the body and are natural painkillers. The word endorphin means 'internal morphine.' The word 'Enkephalin' or 'encephalin' means 'inside the brain'.

Strong emotions can override pain signals from the body. For example, when a mother rushes to save her child from a burning house or a wounded soldier fights on, they ignore pain and injuries (Chopra 1990).

"After all, it is not really the adrenalin molecule that makes a mother rush into a burning building to save her child or an endorphin molecule that protects her from feeling the flames. An emotion makes her rush in - a single-minded determination protects her from pain. It just happens that these attributes of her mind have found a chemical pathway that the brain can follow to talk to the body" (Chopra 1990: 60).

Pert (1988) and Chopra (1990) discuss how recent brain research has developed a method to photograph a thought track in a three dimension – such as that of a hologram. Carbon atoms, which have been excited to the state of being radioisotopes, are incorporated into glucose molecules and this solution is injected into the bloodstream. The brain utilises glucose to function. When this glucose reaches the brain, the marker molecules of carbon can be identified as the brain uses them and are thus photographed in three dimension, similar to that of a CAT scan[9]. Scientists watched these marked molecules shift around the brain as the person was experiencing different thoughts. Each sensation, such as pain, deep thought and excitement elicited a different chemical reaction, by virtue of the photograph in the brain.

The biology of multiple personalities – as an example:

"Nothing in the mind-body field seems quite so inexplicable for when a person with multiple personalities shifts from one to other, his body shifts too" (Chopra 1990: 116). Chopra does not expand or explain what he means by the term multiple personality. However, the researcher is of the opinion that this term is not necessarily discussed as a disorder. The reason for the researcher's assumption is that Chopra purports that any person can shift the biology of their body from one extreme to the other. "When we are widely happy, we are not the same person, physiologically speaking, as when we are deeply depressed" (Chopra 1990: 117).

But whether he does mean the term as a disorder or not, the researcher is of the opinion that his examples from his book 'Quantum Healing' (1990) are relevant for this thesis. For example, Chopra discusses how in a single person, 'multiple personalities' may exist. He states that one of these so-called personalities may have diabetes and would exhibit an insulin-deficiency. Yet in the identical person,

another personality may exist, completely free of any diabetic symptoms. Depending on which personality is being exhibited, would determine the associated circumstances (in this case medical condition), that are prevalent (ibid).

Chopra makes mention of Daniel Goldman, a psychologist and frequent reporter on mind body topics. Goldman describes a child, 'Timmy' who exhibits a dozen different and separate personalities. One of these personalities experiences an allergic reaction to orange juice, causing Timmy to break out in hives. When another personality supercedes this 'allergic' personality, the hives subside and the itching ceases.

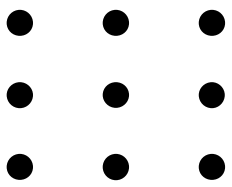
Chopra continues to quote Dr. Bennett Braun, a research psychiatrist and specialist in this field who has documented and verified many more occurrences of this phenomenon. "When the patient's personality shifts, warts, scars and rashes have been seen to appear and disappear, along with hypertension and epilepsy. A specific personality can be colour blind, only to return to normal sight when the personality changes back. Almost as a rule, such patients have at least one personality that is a child, and when it emerges, their bodies respond to lower doses of drugs. In one case, 5 milligrams of a tranquillizer made a patient relax and sleepy when he was a child, while a dose twenty times stronger had no effect on the adult" (Chopra 1990: 118).

To explain this, Chopra believes a quantum shift (further detailed in thesis) has taken place. Chopra explains that a personality has no molecules in it, but rather is composed of memories and psychological tendencies. "Every molecule in the body is wrapped up with a bit of invisible intelligence" (ibid).

2.3 Understanding the need to broaden the horizons of thought

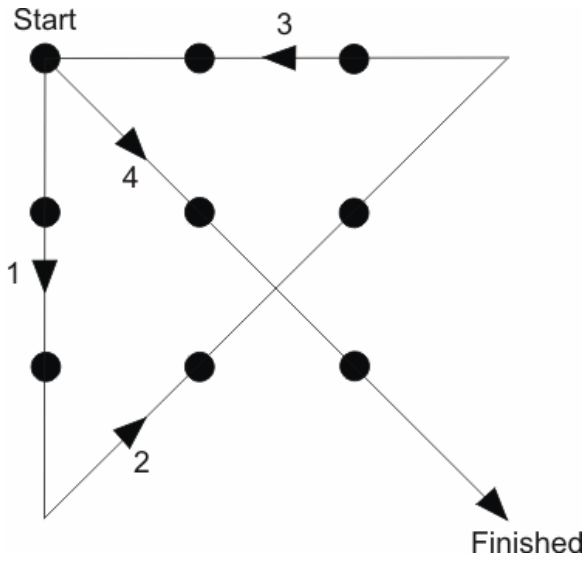
Kabat-Zinn (1990: 158) and Watzlawick, Weakland & Fisch (1974:27) discuss 'The nine dot problem'. This problem demonstrates how our patterns of seeing and thinking seem to have an automatic nature.

Below is an arrangement of nine dots. The candidate is required to connect up all the dots by making 4 straight lines without lifting their pencil and without retracing along any lines.



What invariably happens with most people is that they start out in one corner and draw 3 lines around the square, but 1 dot will be left out this way. At this stage, the mind can experience distress. The more solutions you try that do not work, the more frustrated you can become.

The solution:
The solution lies in extending the lines you draw beyond the imaginary square that the dots make.



"The assumption is that the dots compose a square and that the solution must be found within that square, a self-imposed condition which the instructions do not contain" (Watzlawick et al 1974: 25). Kabat-Zinn (1990) asserts that we need to remember that we effectively create our own limits and boundaries by our own thought processes.

Isolating the 9-dots as the domain of the problem; as would automatically be the human tendency, will never provide a satisfactory solution because the candidate is channelling their energy into the wrong space. The candidate is not seeing the full domain of the problem. They are missing the larger context (Kabat-Zinn 1990; Watzlawick et al 1974).

"The problem of the nine dots teaches us that we may have to expand beyond our habitual ways of seeing and thinking and acting in order to solve or resolve certain kinds of problems" (Kabat-Zinn 1990:160). Hence, this thesis goes beyond the limitations of rote thinking and ventures outside of the classic methodology of thinking by using a lateral third dimension to address the mind-body connection as a holistic entity as opposed to merely a physical association. Health must therefore be understood in its entirety, in the domain of the whole.

From the 9-dot concept above we can begin to see how our mind make interpretations and how our perceptions affect the meanings we give to things. If we relate this to illness, we can see that the meanings and interpretations that we give to illness may have various associated impacts. "Every person has their own unique story that gives meaning and coherence to that person's perception of his or her life, as well as of illness and his aim and what he or she believes is possible" (Kabat-Zinn 1990:7).

This chapter suggests that our 'seeing' and interpreting of life's events and circumstances may have a larger influence on us than the event itself.
How we perceive a problem and by extension how we perceive the world and ourselves, can have profound influences over what we are capable of doing. Our thought patterns dictate ways we perceive and explain reality, including our relationship with ourselves, illnesses and the world. Our thought patterns underlie our motives for doing things and for making choices. They influence the degree of confidence we have in our ability to make things happen. They are the core of our beliefs about the world; how it works, and what our place is in it (Kabat-Zinn 1990).

In conclusion, this chapter introduces the idea of how powerful our minds maybe in creating our reality. As a result, when understanding health issues, we need to take cognisance of not just the physical aspects of a person, but importantly the mental aspects as well. This chapter also seeks to challenge the reader to think beyond the limitations of 'the nine dots' in order to properly appreciate the holism of this thesis.
This leads to an explanation of the historical developments made in understanding the mind and body in health and illness.

CHAPTER 3

HISTORICAL DEVELOPMENTS OF PHYSICAL AND MENTAL HEALTH

Introduction

For thousands of years people have wondered whether illness is a purely physical condition and whether a person's mind can play a role in becoming ill and getting well. Sarafino (1998) states that physical and mental health have historically been involved in an interplay where at times they where considered to influence each other, while at other times they were seen as completely separate entities. This chapter briefly discusses historically developments of how various people and philosophers understood the mind and body connection. The segregated historical thinking has certainly been advantageous in contributing to each respective discipline. In the 21st century, more people are beginning to understand the importance of understanding how these two realms are interdependent on each other, as is evident by the multitude of writings on this topic. The unification of these segregated concepts has allowed us to independently create an amalgamated model – encompassing mind and body as a lateral combined holistic philosophy.

3.1 Hippocrates – Descartes

According to Sarafino, (1998) the philosophers of ancient Greece (500 B.C - 300 B.C) created the earliest ideas about physiology, disease processes and the mind. Hippocrates, often called "the father of medicine" proposed a humoral theory to explain why people get sick. According to the theory when the mixture of these humors (body fluids) where out of balance in our bodies, disease occurred. Hippocrates recommended a good diet and the avoidance of overindulgence to help achieve 'humoral' balance. Greek philosophers such as Plato (427 BC to 347 BC) interpreted this theory to be that the mind had no relationship to the body, as it was simply due to the imbalance of body fluids that made people sick (Sarafino 1998, Graham 1990, Temoshok, Van Dyke, Zegans 1983).

In the 2nd century, a famous physician, Galen (131 to 201 AD), created many innovations. He also believed in the humoral theory and mind/body split. He began to dissect animals of different species, making discoveries about the brain and circulatory systems. He became aware that illness was localised, with pathology in specific parts of the body and that different diseases had different affects. Galen's ideas became widely accepted (ibid).

During the middle ages, after the collapse of the Roman Empire in the 5th century, the influence of the church in slowing the development of medical knowledge was enormous. According to overwhelming documentation of historians, the church viewed human beings and animals as possessors of sacred souls and should not be the subject of scientific investigation. This hindered the development of anatomy and medicine for centuries.
Pursuant to this, people's ideas about the cause of illness took on pronounced religious overtones. Sickness was seen as God's punishment for doing evil things and the priests were involved in torturing the body to drive out the evil sprits (ibid).

During the 14th and 15th centuries (the Renaissance), Europe saw a rebirth in enquiry, culture and politics. Scholars became more 'human-centred' than 'God centred', in search of 'the truth'. These ideas set the stage for important changes in philosophy once the scientific revolution began (ibid).

In the 17th century, French philosopher and mathematician Rene Descartes (1596-1650) had a great influence on scientific thought, more than any philosophers in history (Schneider & Tarshis 1975, in Sarafino 1998). Descartes also believed that the mind and body were separate entities. Of the many innovations that he proposed - two seem to be most relevant for this thesis:

1. The idea that although mind and body were separate, they could communicate through the pineal gland, an organ in the brain (Leahey 1987 in Sarafino 1998).

2. Descartes also believed that animals had no soul and that the soul in humans left the body at death (Marx & Hillix 1963 in Sarafino 1998). The consequences of this were that dissection could be an acceptable method of study in anatomy.

This split between mind and body enabled scientists to treat matter as inert and completely distinct from them and led to the belief that the world could be described objectively. Pursuant to this, science and objectivity became synonymous concepts in scientific minds (Graham 1990).

Descartes viewed the human body as a machine, part of a perfect cosmic machine, governed in principle at least by mathematical law. Illich (in Graham 1990) outlined the implications of this by explaining that the Descartes description effectively turned the human body into clockwork and placed distance not only between body and soul, but also between the patient's complaints and the physician's eye. Within this mechanical framework, pain turned into a red light and sickness into mechanical trouble. As minerals and plants could be classified, so disease could be isolated and put in their place by the doctor – taxonomist.

Invariably, this led a tendency to refer to disease as 'a thing', and not as part of the total life process. The person was therefore separated from the illness, and doctor's interests shifted from the sick to sickness as a concept. Hospitals became laboratories only for the study of disease processes, rather than institutions which also need to 'care for the sick', and nearly all talk about health actually became about disease; a focus, which is essentially negative (Graham 1990).

In the meantime, consistent with mechanistic orientation, medicine settled with repairing, removing, or replacing those parts it could not more successfully engineer, and as that century progressed the mechanics of medicine became increasingly evident in various developments in spare part surgery, the mechanization of childbirth and engineering of every kind; genetic, biochemical, and structural (ibid).

Emphasis within medicine shifted entirely onto the physical aspects of disease as medicine became exclusively concerned with the body. Disease whose origin could not be attributed to the physical body was incorporated into the framework of physical science by the simple expedient of converting the soul or psyche into mind, and then into brain function, or dismissing it altogether (Sarafino 1998, Graham 1990, Temoshok et al 1983).

3.2 The Biomedical Model

In 18th and 19th centuries, knowledge in science and medicine grew quickly, helped greatly by the development of the microscope and the use of dissection in autopsies. Once scientists learned the basics of how the body functioned and discovered that micro organisms caused certain diseases, they were able to reject the humoral theory of illness and propose new theories. The field of surgery flourished after antiseptic techniques and anaesthesia were introduced.
These advances coupled with the continuing belief in the mind and body being separate, laid foundation for a new approach/model to conceptualise health and illness. This approach – called biomedical model- proposes that all disease or physical disorders can be explained by disturbances in physiological processes, which result from injury, biochemical imbalances, bacterial or viral infections. The biochemical model assumes that disease is an affliction of the body and is separate from psychological and social processes of the mind (Temoshok et al 1983). This viewpoint became widely accepted during the 19th and 20th centuries and still mainly represents the dominant view in medicine today.

It should be noted that the biomedical model has been very useful. Using it as a guide, researchers have made enormous achievements. They conquered many infectious diseases, such as polio and measles, through the development of vaccines. They developed antibiotics, which made it possible to cure illness caused by bacterial infection.

3.3 The role of psychology emerging in disease

According to Graham (1990), Freud (1856-1939) is generally credited as being the founder of modern psychotherapy. Graham considers Freud as a pioneer of medical psychology "in as much as everything embraced in his approach originated in medical science" (Graham 1990:69). He expresses that, "it bears the unmistakable imprint of the physicians consulting room – a fact which is evident not only in its terminology but also in its framework of theory. It is also discernible in its most distinctive feature, the analysts couch!"(ibid).
Freud was a man of his time and like other doctors of the period saw science as the great legitimiser. Graham (1990) discusses how Freud's term 'psychoanalysis´ was essentially reductionistic and analytical because the therapist attempted to understand the workings of the mind-machine in terms of these elements. Psychoanalysis was therefore concerned with symptoms alleviation, and as such clearly reflects the disease model of medicine wherein health is the absence of disease and pathological symptoms. Moreover, they consider his methods of psychoanalysis as cold and impersonal.

Temoshok et al (1983:5) indicates that Freud advised his followers to cultivate the scientific ideal of objectivity, and to be 'as cold as surgeons' in their exploration of the mind. "He assumed that the observation of patients during analysis could take place without the appreciable interaction between patient and analyst, and instead that there should be no physical intervention at all" (ibid).
Freudian psychotherapy thus reflects the mind-body division characteristic of medicine, and neglects the body just as emphatically as medical treatment neglected the mind (ibid).

However, Freud's work led to further important developments. When Freud was trained as a physician, he noticed that some patients showed symptoms of physical illness without any organic disorder. He believed that these symptoms were 'converted' from unconscious emotional conflicts. He called this condition 'conversion hysteria' (Sarafino 1998).

The need to understand conditions such as 'conversion hysteria' led some researchers in the 1930's to study the interplay between emotional life and bodily processes (Alexander 1950 in Sarafino 1998). The field called Psychosomatic medicine emerged in association with the National Research Council, which began publishing the Journal of Psychosomatic Medicine in 1939. Its founders were primarily researchers trained in medicine and their leaders included the psychoanalyst Franz Alexander and the psychiatrist Flanders Dunbar. Four years later the field was organised as a society, which is now called American Psychosomatic Society.
During the society's first 25 years, research in psychosomatic medicine focused on psychoanalytic interpretations for a specific set of health problems, including ulcers, high blood pressure, asthma, migraine headaches and rheumatoid arthritis (Sarafino 1998).

During the early years of the twentieth century, Freud attracted a substantial following within the medical profession throughout Europe. One of his most influential supporters was psychiatrist Carl Jung (1875-1961). However although sharing many of Freud's views on the nature of the unconscious, he considered Freud's denial of all things spiritual or psychical as an absurdity. Jung believed that the religious dimension and psychology of man was essential to any system of psychology which purports to study man.
For Jung, healing was essentially a spiritual problem and the central thrust of psychotherapy was to be understood of a man in search of soul. It was a method of both medical treatment and self-education and of value to sick and healthy. Jung saw therapy as a journey along a path of personal development, which he termed individuation, integrating, experiencing and accepting a new Self. Jung saw the therapist as a fellow traveller in the journey of self-realization. He broke the authoritarian relationship between doctor and patient and recommended a non-judgemental approach (Graham 1990).

Another 'visionary' was Wilhelm Reich (1897-1957), whose attempt to synthesis psychology and physics led to derision and his social humiliation.
All Reich's ideas had their foundation in Freud's theory of psychic energy.

Reich's therapy was highly dramatic and there was a direct physical and psychological encounter between him and his patient. He did away with the psychoanalytic taboo of never touching a patient. He also instituted breathing exercises as apart of therapy, which he felt helped patient to feel vital and alive. In this way, neurotic symptoms could be attacked at the same time in their psychic and somatic manifestations (ibid).

However, his opponents viewed him as a 'quack' and as suffering from paranoid delusions. At best, Reich was seen within the scientific community as a mystic and the hostility towards Reich eventually led to his incarceration and death in prison (ibid).

3.4 Behaviourism

Reich and his followers were a source of profound embarrassment for psychology. Psychology had reconciled the apparent incompatibility of science and the psychological realm, by denying the existence of the latter and conceiving of man solely in terms of his objective behaviour. This 'Behaviourism', as developed by Watson, Hull and Skinner, viewed man as a complex machine responding to various environmental stimuli by way of conditioned reflexes (Sarafino 1998).

The attempt to understand man in terms of what Koestler (in Graham 1990: 80) termed "slot machines mechanics", implied a rigorous causal relationship which would allow psychology to predict the response for any given stimulus and conversely to specify the stimulus for a given response.

By this time, physiological psychologists were demonstrating that psychological events, particularly emotions, influenced bodily functions, such as blood pressure (Sarafino 1998). Conditioning methods had shown a good deal of success as therapeutic approaches in helping people modify problem behaviour such as overeating; and emotions such as anxiety and fear. Researchers began to show that people could learn to control various physiological systems if they were given feedback as to what the systems were doing (Miller in Sarafino 1998).

These findings were important because they began to reveal a more direct the link between the mind and body than was previously realised.

A new field was founded in the early 1970's to study the role of psychology in illness. According to Sarafino, this field - called Behavioural Medicine - grew out of the behaviourist perspective. (Behavioural medicine is discussed in detail in chapter 4).

3.5 A Holistic Approach

The increasing recognition of the 'whole thing' in the West led to advocacy of holistic medicine. Holistic medicine is an umbrella term, which has come to embrace many different approaches and methods, ranging from dietetics and homeopathy to crystal therapy and spiritual healing. However, LeShan (in Temoshok et al 1983: 6) declares that "there is no such thing as a holistic technique or modality - only a holistic attitude – a concern to promote the understanding that all levels of a person's being (physical, psychological, emotional, spiritual, social and ecological) are all of equal importance in the prevention of disease and the search for health; and that the potentials for promoting health and overcoming illness reside within the person."

It therefore seems that over time there were great discoveries and investigations about what worked best to create optimal health for people. From the above historical discussion, it seems that ultimately both physically and mentally there seems to be a comprehension that a more holistic approach may be necessary. Once the importance of the person (including their physical, psychological, social and spiritual dimensions) in health is recognised, without undermining; and in fact including; the biomedical model; a different and broader picture is created.
This perspective involves the interplay of biological, psychological and social aspects of the person's life. This perspective is known as the Biopsychosocial Model (Engel, 1977, 1980; Schwartz, 1982 in Sarafino 1998). Flowing from this, the next chapter (Chapter 4) discusses Behavioural Medicine and the Biopsychosocial Model.

CHAPTER 4

BEHAVIOURAL MEDICINE AND THE BIOPSYCHOSOCIAL MODEL

Introduction

Thus far, this thesis has discussed the importance of considering the mind when understanding health issues and has discussed one view of how a holistic approach to health has been reached.

At the dawn of the 70th decade in the 20th century, a broad interdisciplinary field known as Behavioural Medicine was officially founded; integrating behavioural, psychosocial[10] and biomedical scientific knowledge.
"Over the past 20 years, mounting scientific evidence from the field of behavioural medicine has demonstrated a fundamental connection between mental and physical health" (WHO, The World Health Report 2001: http://www.who.int/whr2001/2001/main/en/chapter1/001b2.htm).

The pragmatic combination of psychological, social and physical interactivity creates the Biopsychosocial Model. Visser (1990:51) states that "It would seem that the understanding of health and disease within a biopsychosocial framework has gone full circle historically." In order to make sense of the Biopsychosocial Model, the systems theory has been used where, the term 'system' refers to a dynamic entity consisting of components that are continuously interrelated. This chapter will detail Behavioural Medicine and the Biopsychosocial Model from a systemic perspective.

4.1 Behavioural Medicine

In the 1970's the field of Behaviour Medicine was formally launched in association with the National Academy of Sciences. The Journal of Behavioural Medicine was established and the Society of Behavioural Medicine was founded.
An important characteristic of this field is that its membership is interdisciplinary-originating from a wide variety of fields including psychology, sociology and various

areas of medicine (Sarafino 1998). The talents and perspectives of this diverse membership result in a "joint exploration targeted on health issues of mutual concern" (Gentry 1984 in Sarafino 1998:14). These health issues involve all aspects of illness – prevention, diagnosis, treatment, and rehabilitation.

According to Kabat-Zinn (1990), Behavioural Medicine represents a new current within medicine itself; one that is rapidly expanding our ideas and knowledge about health and illness. New research findings and new ways of thinking about health and illness in Behaviour Medicine are rapidly producing a more comprehensible perspective within medicine, one that recognizes the fundamental unity of mind and body. This perspective explicitly recognizes that people need to be active participants whenever possible in their own health care by learning more about health and how to maintain and optimize it. It also recognizes the importance of people learning to communicate more effectively with their doctors in order to ensure that they understand as much as they want to about what their doctor is telling them and that they are in turn understood by their doctor, ensuring that their needs will be acknowledged and honoured.

"Perhaps the most fundamental development in behavioural medicine is the recognition that we can no longer think about health as being solely a characteristic of the body or the mind because body and mind are interconnected. The new perspective acknowledges the central importance of thinking in terms of wholeness and interconnectedness and the need to pay attention to the interactions of the mind, body and behaviour in effort to understand and treat illness" (Kabat-Zinn 1990:150).

This can be related to the importance that Carl Rogers places on the concept of 'wholeness'. He understands this to mean that people can only be understood in terms of their "totality". He states that people are "…complete with all their ideas, feelings, behaviour, needs, values and physical attributes…" (Du Toit et al 1998:45)

This view emphasizes that science will never be able to fully describe a complex dynamic process such as health or even a relatively simple chronic disease without looking at the functioning of the whole organism and not restricting itself to an analysis of parts and components; no matter how important that may be as well (Brom 1999).

Behaviour Medicine recognises that our thought patterns and emotions play a significant role in health and disease. Behaviour Medicine recognises that what people believe about their bodies and their illnesses may be important for healing (Nakao, Fricchione, Myers, Zuttermeister, Baim, Mandle, & Benson 2001).

4.2 The Biopsychosocial Model

Wallace, Goldberg & Slaby (1984), determined health as: An interaction among our genetic vulnerabilities; environmental inputs such as germs, viruses, or pollutants; psychological factors such as stress, lifestyle, attitudes, behaviour and; social factors such as supportive relationships, economic well-being, access to health care, family and community patterns of behaviour.

In the 1970's, the eminent medical researcher George Engel of the University of Rochester made the bold statement that modern medicine needed a new way of thinking about health and illness. He proposed the 'biopsychosocial model', in which health is the outcome of many factors interacting together (Collinge 1996). From the name it can be seen that what was regarded as important was in fact a holistic way of examining health, whereby the role of biological, psychological and social factors are elements that would all interact and affect each other systemically. These three elements will be examined briefly.

4.2.1 Elements of the Biopsychosocial Model

The Role of Biological Factors

The term 'biological factors' includes, but is not limited to, the genetic materials and processes inherited from parents. It also includes aspects of the person's physiological functioning. For example, a structural defect such as damage to the brain or heart may impair the operation of certain organs and systems. The body may protect itself by fighting infections, or overact in its protective function when we have an allergic reaction to a seemingly harmless substance e.g. pollen.
The body consists of enormous complex physical systems. As an example, organs, bones and nerves; are in turn composed of tissues, cells, molecules, atoms, matter, antimatter and mostly space (Hawking 1989). In order for our bodies to function in a healthy manner, these components need to operate and interact with each other effectively as well as efficiently (Wallace et al 1984).

The Role of Psychological Factors

According to Sarafino (1998:15) "Behavioural and mental processes are the focus of psychology and they involve *cognition*, *emotion* and *motivation*."

Further, Sarafino (1998) and Kiecolt-Glaser, McGuire, Theodore, Robels, & Glaser (2002), provide the following characterisations:

Cognition - A mental activity that encompasses perceiving, learning, remembering, thinking, interpreting, believing and problem solving.

A very simple illustration of this would be the evaluation of a discomfort that a patient recalls as having occurred previously and thereafter disappearing. Cognitively, the patient would most likely ignore a subsequent similar discomfort, noting that it would resolve itself, without intervention.
How do these cognitive factors affect health and illness?

Suppose, for instance, a person strongly believed that 'life is not worth living without the things I enjoy'. If they enjoy smoking cigarettes, would the person quit smoking to reduce their risk of getting cancer or heart disease? Probably not. Or suppose a person develops a pain in their abdomen and they remember having a similar symptom in the past that disappeared in a couple of days. Would they seek treatment? Again, probably not. These examples are just two of the countless ways cognition plays a role in health and illness.

Emotions - A subjective feeling that affects and is affected by our thoughts, behaviour and physiology. Some emotions are positive or pleasant, such as joy and affection. Others may be negative, such as anger, fear and sadness. "Emotions relate to health and illness in many ways. For instance, people whose emotions are relatively positive are less disease prone and more likely to take good care of their health and to recover quickly from an illness than people whose emotions are relatively negative. Emotions can also be important in people's decisions about seeking treatment. People who are frightened of doctors or dentists may avoid getting the health care that they may need" (Sarafino 1998: 15).

Motivation - A term applied to explanations of why people behave the way they do – why they start some activity, choose its direction, and persist in it. A person who is motivated to feel and look better might begin an exercise program, choose goals to accomplish and stick with that resolve.

<u>The Role of Social Factors</u>

People live in social worlds, interacting with individuals and groups of individuals. Reciprocally, people affect and affect each other, within these spheres of social, community and family realms (Sommer 1996).

On a fairly broad level, our society affects the health of individual's by promoting certain values of our culture. One of these values may be that being fit and healthy is good. Often, mass media, such as television and printed literature- reflect these

values by setting good examples and urging us to eat well, not to use drugs and not to drink and drive. The mass media can do much to promote health, but can also encourage negative unhealthy behaviours.

The community consists of individuals who live fairly near one another, such as the same town or country. The relationships we have with these people often involve relatively direct and reciprocal influences – we influence and are influenced by each other. This influence can be seen in research findings where it is demonstrated that communities differ in the extent to which their members practice certain health-related behaviours, such as smoking, or consuming fatty diets (Diehr, Koepsell, Cheadle, Psaty, Wagner, & Curry 1993; Sarafino 1998). These differences may develop in many ways. For example, adolescent often start smoking or drinking because of peer pressure. This is just one example of a powerful motivational element, which is social in nature.

The closest and most continuous social relationships for most people occur within the family, which can include non-relatives who live together and share strong emotional bonds. As individuals grow and develop in early childhood, the family has an especially strong influence (Armstrong 1986 in Sarafino 1998). Children learn many health related behaviours, attitudes and beliefs from their parents and siblings. They learn when parents and siblings set good examples and encourage them to perform healthy behaviours.

4.3 The Concept of Systems

General systems theory was initially developed by Ludwig von Bertalanffy (1968). It was proposed by George Engel (1980) as a way to conceptualize the interplay of all biological, psychological and social factors in order to understand the 'whole person'. Systems concepts help to reflect our recognition that people and the reasons for their behaviours are very complex (Visser 1990). Systems theory thus attempts to bridge the dichotomies between different disciplines.
The Biopsychosocial model and general systems theory significantly influence each other (Webster 1999).

Schlebusch (1998) indicates that general systems theory counteracts the super specialisation with the unavoidable compartmentalization of information as specialists discover more and more about less and less; and patients learn to discuss (through the process of health care conditioning resulting in compartmentalized thinking) only the specific part of their bodies relevant to the health care specialist they are consulting with.

The term 'system' refers to a dynamic entity consisting of components that are continuously interrelated. The human body qualifies as a system – and it includes the immune and nervous system, which in turn consist of tissues and cells.

A family is a system, as is the community and society in which it exists. As systems they are entities that are dynamic, having components that interrelate, such as by exchanging energy, substances and information.

The systems concept places smaller, simpler systems within larger, more complex ones. There are levels of systems. For example, cells are within a person, who is within a family and society.
A system on one level, such as a person, is effected by and can affect a system at another level, such as the family. Similarly, if we look at the levels within the person, illness in one part of the body can have far-reaching effects; if you fall and seriously injured your leg, your internal system would automatically mobilize to help protect the body from further damage. In addition, the discomfort and disability that you may experience for days or weeks might affect your social relations with your family and community (Sarafino 1998). If you need medical attention, you may need to take time off work, which may affect your clients/colleagues. If you belong to medical aid scheme, this may have to be activated. The process continues in a domino effect.

Throughout people's lives the roles and effects of different Biopsychosocial systems change, effecting differences in health and illness. Another interesting factor to consider is socio-cultural differences in health. The differences we see in illness

patterns between countries, regions, or ethnic groups result from many factors, including heredity, environmental pollution, economic barriers to health care, cultural differences such as diets and health-related beliefs and values (Flack, Amaro, Jenkins, Kunitz, Levy & Mixon 1995) and (Johnson, Anderson, Bastida, Kramer, Williams & Wong 1995).

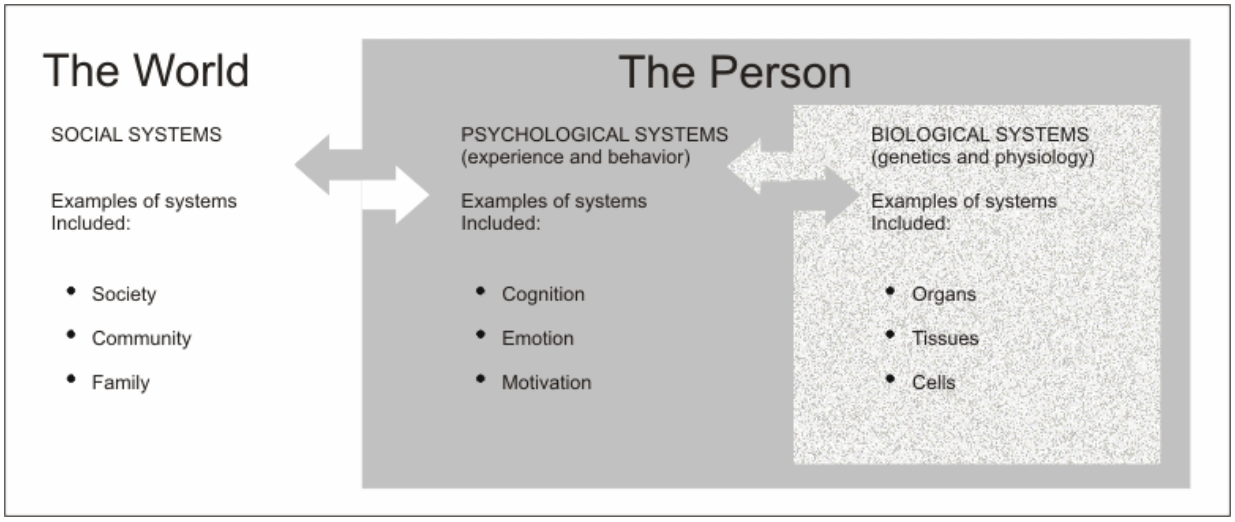


Diagram:

The interplay of systems in the Biopsychosocial model (Sarafino 1998: 17).

CHAPTER 5

PSYCHONEUROIMMUNOLOGY (PNI)

Introduction

The research has thus far demonstrated the importance of combining mental, emotional, social and physical aspects when understanding health issues.

The recognition of the interdependence of the biological and psychological systems; and the connection that this has to health and illness, led researchers to form a new field of study called psychoneuroimmunology. This field focuses on the relationship between psychosocial processes and the activities of the nervous, endocrine and immune systems (Ader & Cohen 1985).

The utilisation of the Biopsychosocial model provides the theoretical framework to support mind body medicine, enabling the exploration and understanding of psychoneuroimmunology (Engel 1977).

"Psychoneuroimmunology research forms one of the foundations of the Biopsychosocial model, our understanding of psychopathology and supports the work carried out in the field of Behavioural Medicine, which extends beyond the scope of psychoneuroimmunology but includes it" (De Kooker 2001:2).

In the 1970's a new branch of medical science, psychoneuroimmunology launched the study of relationships between mind (psyche), the nervous system (neuro) and the immune system (immuno) (Miller 1997).

5.1 What is psychoneuroimmunology (PNI)?

PNI is the field of study that examines how thoughts, perceptions and emotions (and the coping styles we choose in response to these thoughts, perceptions and emotions) causes changes in brain chemistry; which in turn causes change in the body, particularly in immune system functioning (Miller 1997; Pert 1997; De Kooker 2001; Kiecolt – Glaser et al Jan 2002).

Pert (1997: 352) states that psychoneuroimmunology was a term coined "to emphasis and promote research that is interdisciplinary in focus and attempts to understand how mental (psychological) functions affects immunological activities mediated via traditional neural connections."

Solomon (in Lengacher, Bennet, Gonzalez, Cox, Reintgen & Shons 1998: 96) concurs that "Psychoneuroimmunology adheres to the view that all disease are multifactoral and biopsychosocial in onset and course, showing the interrelationship between bacteria, viruses, genetic, endocrine, nervous, immune, emotional and behavioural factors."

5.2 The development of psychoneuroimmunology

Kiecolt – Glaser et al (Jan 2002) highlights two psychoneuroimmunology milestones. Firstly, in 1964, George F. Solomon et al coined the term "psychoimmunology" and published a landmark paper: "Emotions, immunity, and disease: a speculative theoretical integration. Pert (1997:177) states that this granddaddy term grew from Solomon's observation on how profoundly personality affects disease. Despite this notable paper, few psychoneuroimmunology studies appeared before the 1980's. The explosive growth in both animal and psychoneuroimmunology human studies was stimulated by Ader and Cohen's seminal 1975 demonstration of classical conditioning on immune function.

Psychoneuroimmunology is a field that grew out of unanticipated findings in an experiment conducted by Ader and Cohen in 1974.

While carrying out an experiment in classical conditioning, inspired by the Russian scientists, (who had been giving this field a fair amount of attention since the early 1920's); Ader (a psychologist at the University of Rochester in New York) and Cohen (immunologist at the University of Rochester), made an unanticipated yet breakthrough discovery that immune response could be conditioned in the same way that behavioural responses could.

Ader was performing an experiment to teach rats to associate nausea with the taste of saccharin-sweetened water, which is harmless on its own. He did this by pairing the sweetened water with injections of the drug cyclophosphamide, which caused nausea. On subsequent days, he offered the rats sweetened water without the drug and recorded how much they drank, as a measure of how long they 'remembered' the nausea association.

Then Ader hit a snag. After several days, some rats, although young and healthy, began to sicken and die. Ader knew that cyclophosphamide is also a powerful immune system suppressant. He realized that the rats had come to associate not only nausea, but also their immune suppression with the sweetened water. With each drink, the rats had 'believed' they were getting more of the drug although after the first day they were only receiving the harmless saccharin – sweetened water, with no drug. Their immune system responded to the saccharine water, even though it no longer contained the drug. Accordingly, this in turn left them more susceptible to disease. It was a startling revelation, because up until that time, medical wisdom had held that the brain and immune system are completely autonomous entities, unable to affect each other. Ader soon joined with immunologist Nicholas Cohen, further exploring behaviourally conditioned immune suppression. The pair's elegant experiments are credited with putting PNI on the map (Sali 1997; De Kooker 2001; Kiecolt – Glaser et al Jan 2002; Pert 1997).

Their report was published in Psychosomatic Medicine Jul-Aug 1975. Much research has been carried out since then and in 1991 they edited their second book of in-depth reviews and research in the field, entitled Psychoneuroimmunology Second Edition.

Ader insisted that his psychoneuroimmunology was scientifically solid, grounded on meticulously designed rat experiments, and his belief, in the resolutely unflaky tenets of behaviourism. He said that the experiments with rats had showed that the immune system could be conditioned and therefore did not operate autonomously as immunologists had always believed, but was under the influence of the brain.

5.3 The mind-body connection:

"When we speak of the mind-body connection, as demonstrated in PNI research we are not focusing on the causation of disease, but in the interaction between psycho-social factors, coping styles and pre-existing conditions" (Robert Ader 1991 in De Kooker 2001: 4).

Continued psychoneuroimmunology research discovered that the various chemical messengers (called peptides – which include hormones, neurotransmitters, endorphins and growth factors) form a complex network of communication between the brain and nervous system, the immune system and other organs. These peptides interconnect the nervous, endocrine and immune system into one network. One of the foundations of psychoneuroimmunology concern how levels of various peptides and the autonomic nervous system are regulated by mental-emotional states, and how mental an emotional states are in turn regulated by various peptides secreted from the central nervous system[11] or the immune system (De Kooker 2001).

Miller (1997) states that guided imagery and affirmations enable us to change our ways of thinking about ourselves, and to change the way we handle our inner emotional states. In this way, we can achieve control over how we experience our lives, and thus develop new patterns of behaviour. Increased states of consciousness combined with healing imagery can enhance the functioning of many organs of our bodies, including our heart rates, our nervous systems, our digestive tracts, and perhaps even our immune systems. Miller maintains that

psychoneuroimmunology research is aimed at showing that the body is capable of producing its own healing substance.

5.4 Physiology of the immune system

It is not the task of this research to enunciate elaborate medical terms and therefore this is kept to a minimum. If the reader wishes to understand more about the terms used, please refer to the detailed references provided (specifically within this chapter and in the references at the end of thesis).

Dreher (1995) states that our immune system stands guard against the intrusion of noxious invaders – bacteria, viruses, cancers cells, or any organism that threatens harm to our tissues. An interactive network of cells and substances, the immune system is our body's monitor, its police force, its protector. It has the necessary 'intelligence' to distinguish between elements that belong to the 'self' and those that are foreign, or 'non-self'. It is a multi-armed tool for fine-tuning our biological responses, thus maintaining balance between our internal and external environments. It resolves the crisis of an invasion by fighting the interlopers, repairing the damage, and cleaning up the remnants of battle.

Dreher (1995) continues that research from the field of psychoneuroimmunology has taught us that the brain and nervous system are intimately involved in the activities of the immune system. So too is the endocrine system, our network of glands and hormones they secrete. Our healing network, the immune system, is an integral part of a larger entity, the 'bodymind'.

In a language consisting of cell products, our nervous, endocrine and immune system 'talk' to each other. However, their dialogue is more than occasional chatter. It is non-stop communication along a superhighway of cellular information. These continuous exchanges enable our systems to act in concert to eliminate outside invaders and maintain the integrity of the body.

Thoughts and feelings are mediated by brain chemistry that also regulates our body's defences. These chemicals called 'neurotransmitters' are not restricted to the brain. They circulate throughout the body, carrying messages to other systems and cells, including our immune system. In other words, the chemical 'carriers' of our human emotions directly influence our physical health.

Miller (1997:139) discusses in a very simplistic way how our immune systems can malfunction and the processes that may then transpire. "In many ways the immune system is dependent on the central nervous system for its proper functioning. This is how your thoughts, feelings and beliefs play a role in your immune functions. When you experience high levels of stress, the immune system may be thrown out of balance."
When the immune system is out of balance, it either under reacts or over reacts. Some illnesses and problems that are produced from overreactions of immune functioning are allergies and autoimmune disease, such as rheumatoid arthritis or lupus erythematosis. Under reactive immune system functions can lead to repeated, chronic, or indolent infection and other immune dysfunctions, such as tumours and cancer growths (Miller 1997; De Kooker 2001). "Through many studies and research it has now been proven that, it is not only physical unbalances that give rise to immune weakness and dysfunction, but (that) psychosocial factors may also play a high role in lowering and increasing immune functioning" (Miller 1997: 140).

A review written in June 2002 by Kiecolt –Glaser, McGuire, Robels and Glaser, focus on psychoneuroimmunology studies performed and published by themselves and other researchers in the field. Issues they discuss include the routes through which psychological factors influence immune functioning; how stressor's duration may influence changes observed, individual difference variables, the ability of interventions to modulate immune function, and health consequences of psychosocially mediated immune deregulation. The importance of negative affect and supportive personal relationships are also highlighted in this article.

5.5 Psychological factors influencing immune functioning

The endocrine system serves as one central gateway for psychological influence on health. Stress and depression can provoke the release of pituitary and adrenal hormones that have multiple effects on immune function (Rabin 1999 in Kiecolt Glaser et al June 2002). For example, social stressors can substantially elevate key stress hormones, including catecholamine and cortisol, and these hormones have multiple modulatory effects on immune function (Glaser & Kiecolt-Glaser et al June 2002). In addition, distressed individuals are more likely to have multiple health behaviours that put them at greater risk, including poor sleep, a greater propensity for alcohol and drug abuse, poor nutrition and less exercise, and these health behaviours have immunological and endocrine consequences (ibid). For instance, deep sleep is the normal stimulus for much of the release of growth hormone, a hormone that enhances a number of aspects of immune function (Veldhuis & Iranmanesch 1996 in Glaser & Kiecolt-Glaser et al June 2002); thus, stressors that modify the architecture of sleep may also lessen growth hormone excretion. Moreover, even partial sleep loss for 1 night results in elevated cortisol levels the next evening (Leproult, Copinschi, Buxton & Cauter 1997, in Glaser & Kiecolt-Glaser et al June 2002).

"There are now sufficient data to conclude that immune modulation by psychosocial stressors and/or interventions can lead to actual health changes" (Kiecolt –Glaser et al Jan 2002: 24).

5.6 Disease as a process

Rather than looking at the immune system as only a defence system that protects the body from conquering invaders, Booth (1990) suggested that through the psychoneuroimmune process, the immune system could be viewed as an extension of the brain supporting the body in relationship to the environment, with the immune system acting as a molecular sense organ. He says, "Through this conceptual thinking, disease would no longer be seen as an unnatural state that had to be conquered, but it would be considered as a source of the dynamic process

of existence which provides an opportunity for transformation, adaptation and evolution" (Booth 1990: 314). A few key elements to Booth's statements are of significance. It seems that understanding disease as a dynamic 'process' places various options and opportunities to working with disease in a way that can make a significant difference to the person and their disease.

When viewed from the psychoneuroimmunology perspective, Miller (1997) states that it is possible for a person to direct his or her thoughts to influence physical *processes* that are ordinarily considered to be beyond conscious control.

The emphasis is on the word 'processes'. Miller (1991) proposes that it seems to make sense to look at diseases as verbs rather than nouns. If seen as a verb, it becomes more obvious that most diseases are in fact processes and as such are potentially transformable. He suggests that when we look at diseases as nouns it tends to produce a crystallization of thoughts and we thus become identified with a disease. The Latin-based categorisations used by the medical profession tend to make diseases sound like permanent attributes (nouns) - e.g. we call a person a diabetic or arthritic (Siegel 1988). This implies that their disease *is* their identity and that *they* are the contents of their disease. However if this person is seen as having to cope or manage with a diabetic condition/process, this opens up many more options than if they are labelled as a diabetic. The Microsoft Encarta Dictionary defines Process: as a "series of actions: a series of actions directed towards a particular aim" (Microsoft Encarta 2004). Therefore, there is also the implication that the disease is not something that is static and unchangeable.

According to Miller (1991), getting rid of a cold may seem difficult to imagine; it is perhaps easier to imagine allowing the body to increase its healing rate to eliminate bacteria that are trying to multiply. Arthritis can be viewed as a situation in which the joints are inflaming and blood vessels are enlarging, carrying certain elements to these areas. Viewed in this way, it is now possible to create imagery of this process reversing.

For Miller (1991), it is crucial when utilizing the imagination for healing, to understand the disease as being a process.

Friedman & Kometz (1994) assert that in the psychoneuroimmunology model, disease is promoted by disconnection. Health is promoted through the optimal connectiveness or coherence of persons with their environment. PNI offers a holistic framework - a corner stone, which integrates the person and the environment in the stress process, with psycho and pathological processes linked to disease through effects on the immune system.

Kiecolt-Glaser et al (June 2002) have performed the following PNI interventions themselves and taken studies of others that used similar procedures. Their studies used a number of diverse strategies including hypnosis, relaxation, classical conditioning, self-disclosure, exposure to phobic stressors to enhance perceived coping self-efficiency, and cognitive- behavioural therapies with a range of populations. (Please refer to their article for details of studies performed and positive outcomes established).

This thesis has thus far discussed the Field of Behavioural Medicine and use of the systemic Biopsychosocial Model as a theoretical framework (Chapter 4). This chapter (Chapter 5) then continued with the particular importance of psychological study in disease, known as psychoneuroimmunology. Psychoneuroimmunology gives scientific credibility to observations that the immune system could indeed be profoundly affected by self-image, beliefs and expectations.

The following chapter will elaborate this further by discussing the use of these theories practically.

CHAPTER 6

MIND-BODY MEDICINE IN PRACTICE

Introduction

This chapter utilises the theoretical framework and models used thus far to expand on the practical use of mind body medicine and psychoneuroimmunology. This chapter begins by examining the specific relationship between stress and health from a psychoneuroimmunology perspective. Friedman et al (1994) state that the most accessible way to study psychoneuroimmunological interaction between mind and body is in the area of stress. They affirm that modern understanding of diseases, acknowledges the role of stress.

The second part of this chapter will examine positive ways of maintaining a healthy lifestyle, debating a few authors' perspective, while looking at the 'Immune Power Personality Traits.'

The third part of this chapter will examine the practical ways that 2 South Africans (Orr and Patient) have developed a company- known as Empowerment Concepts - who are currently working practically, using mind body knowledge and skills to assist corporate companies and impoverished countries such as Zimbabwe, with various health issues.

6.1 Stress from a mind-body perspective

The researcher's sensitivity to surrounding stress was heightened when investigating this research. She noticed that a brief reading of the newspaper drives home the impression of an unending stream of human suffering in the world, much of it inflicted by one human being or group of human beings to another. When listening to radio or TV news, it seems that we are assaulted daily by a steady barrage of terrible and heartbreaking images of human violence and misery, reported in a matter of fact tone of broadcast journalism. For example, the

suffering and death in South Africa, or the Middle East is often reported in the same tone as our climate conditions.

According to Olivier (1989 in Visser 1990), South African communities are repeatedly exposed to stressful occurrences, a few examples being crimes such as rape, molestation and robbery. Oliver states that the Medical Researcher Council (University of Potchefstroom) has done extensive research, which indicates that severe stress has negative effects on the brain.

From a psychoneuroimmunology research perspective Margo de Kooker refers to stress as "…the complex of experiences that unfold when there is an inability to respond effectively to a psychosocial factor that renders a person frantic or overwhelmed" (De Kooker 2001: 25). Therefore, psychosocial factors and our personal responses to them are emphasised more than the actual stressor.

Dougan, Dembo, Lenahan, Makapela, Gama, Moutinho (1986) comment that although most people interpret stress as being negative, in the opinion of these authors, it is actually neither good nor bad, but rather neutral or non-specific. They describe stress as internal (from within ourselves) or external (such as noise from the environment) and note that stress is not always a result of something unpleasant. They ascertain that a certain amount of stress in our lives is actually essential to being sufficiently stimulated to meet the challenges of everyday life. But when stress is constant and acute, and we don't find ways that are healthy for us to deal with them, they can have dangerous consequences. Olivier (1989 in Visser 1990) states that although different individuals may have different levels of tolerance to stress, chronic stress will eventually wear down even the strongest of people.

Many people (for various reasons) have learnt to internalize stress, without physical releases or appropriate recovery. These people continue to carry arousal states inside themselves with the stress hormones continuing to agitate them physically and emotionally (Sali 1997). According to Miller (1997), when human beings experience constant unresolved stress, characteristic imbalances develop, such as those that cause heart attacks. When life becomes unbearable and we believe

there is no way to make it better, we turn to harmful habits, such as eating, drinking and smoking. We cease making wise choices and our health ultimately suffers. Kabat-Zinn (1990) states that when people begin to overwork, overeat or become dependant on chemical substances (e.g. alcohol), it may be their way to tolerate the stress. He adds that these may become maladaptive coping mechanisms, which seems to be on the increase. Drugs prescribed by doctors for stress also seem to be on the increase.
Kabat-Zinn affirms that in some instances medication can play important role in stress reduction, as there may be nothing wrong with drugs per se. But he states that with aggressive adverts and sale tactics; often subconsciously doctors think first which drug they should prescribe, not whether a drug is needed in that particular circumstance. He defends that patients also have expectations that the doctor will prescribe something to help them. He says we often feel that we must leave with a prescription, or the doctor is not helping us. He continues that people may become depended on the use of chemicals and drugs (legal and illegal), that may help to give them a temporary sense of control, relaxation and peace of mind. But he says that in the long run these ways may compound stress because it is usually short term and "they do not help us to adapt effectively to stressors we live with, nor to the world as it is" (Kabat-Zinn 1990: 261).

Miller (1997: 28) expresses his anxiety of the easiness of prescribing drugs, (especially in this case for stress symptoms). He states, "Specialists say that stress is caused by the result of an overactive adrenal gland and prescribe drugs that inhibit that gland's activity." However, he considers himself a mind/body physician, and explains that it is more useful to look at the broader picture. Miller continues that if the anxiety for which the physician prescribes tranquilizers is due to an unresolved emotional conflict, for example marital relationship discord, there may be dire consequences for the family as well as the patient. In his experience, "…the wife may develop an ulcer, the husband may become an alcoholic and the child may develop asthma or depression. Failing to look deeper is to my mind, insensitive, inadequate and neglectful." He continues that treatment needs to take a much broader systemic approach and should help the patient and their family find ways to work with their other stressors e.g. at home or at work. He says that when a person is complaining about 'being stressed', it is important to ask them about

the relationships of this person in interaction with the systems around them. He explains that you will then obtain the whole picture of how this person functions within larger systems; and understand this person's stress in relation to their whole mind and body system (Miller 1997: 31).

6.2 Relationship between stress and health

The physiological reactions to stress will begin to explain how stress, if not dealt with in a healthy way, may cause physiological problems. Please note that what may be a healthy method for one person to use in coping, could be different for another. (This is elaborated in subsequent text).

6.2.1 Stress and its physiological manifestations

Stress (mental and emotional) has physiological consequences on the body. Smith (1997) notes that Cannon is a founder of the field of stress physiology. She says that as far back as the mid-1800s, renowned French physiologist Claude Bernard had spoken about the inner environment of an organism, which he claimed was essential to understanding disease. "Cannon further developed this idea in the concept of homeostasis, as the organism's continual attempt to achieve internal balance in response to external change" (Smith 1997: 63).

Smith discusses how Cannon was the first to outline the fight-flight response; the body's internal adaptive response to danger. This fight-flight response mechanism was essential to survival in the days when humans faced acute physical stressors, such as wild animals. The choice was whether to fight back or take flight. However, in modern times, humans are more often confronted by long-term chronic psychological and social stressors, such as unemployment, poverty and crime. Accordingly, the fight flight response is less useful (ibid).

Sali (1997) discusses how Cannon traced the inner workings of stress to the autonomic nervous system. The autonomic nervous system controls involuntary body functions and has two distinct components, which operate, inter alia, in a reverse feedback system.

- The **sympathetic** nervous system
- The **parasympathetic** nervous system

When a person becomes alarmed or excited, the sympathetic nervous system reacts, by causing the body to release stress hormones called catecholamines that arouse key organs. Theses hormones include epinephrine (adrenaline) and norepinephrine (noradrenalin), which react instantly. Physiological changes include increased heart beat (tachycardia), faster breathing (hyperpnoea) and increased blood pressure (hypertension). Cognition is sharpened, and pain perception is dulled. Meanwhile, less urgent activities are deferred. The stomach and small intestines become inactive and growth / reproductive process are inhibited (Sali 1997; Kaplan 1999; Kiecolt-Glaser et al Feb 2002; Kaye, Morton, Bowcutt & Maupin 2000).

For someone who is under constant deadline pressure or beaten down by financial burdens, life today can seem like one long emergency.
Long-term activation of the stress responses can damage health in numerous ways. Over time, the associated cardiovascular changes promote high blood pressure (hypertension), contribute to heart attacks (myocardial infarction), strokes (cerebral vascular accident) and the hardening of arteries (atherosclerosis). Increased muscle tension can even result in diarrhoea.
In addition, when blood sugar is mobilised instead of being stored, healthy tissues can atrophy and fatigue may occur. When constructive body processes are placed on hold; immune function, tissue repair, growth and fertility may be reduced. It is also important to recognize that although stress itself is not a disease, stress can worsen any number of already- serious physical conditions (ibid).

Kiecolt-Glaser et al (Jan 2002) discuss researchers exploring the connection between stress and health. This research does not detail all the studies, but rather provides the conclusions of a few studies, in order for the reader to get an idea of the studies performed. Further information can be obtained by referring to the articles and references detailed in Kiecolt-Glaser et al (Jan & June 2002).

Examples of studies performed are:

A. Researchers exposed stressed individuals (who had experienced a death in the family, become divorced, or had recently moved) to cold viruses and then tested for antibodies a month later. Results indicated that severely stressed individuals were four times more likely to become infected.
B. Men who reported more recent stressful life events demonstrated exaggerated cardiovascular stress responses and greater declines in NK_{12} cell function that lasted longer in response to 12 minutes of mental arithmetic than similar men with fewer life changes.
C. Men and women who provide long term care for a family member with a serious medical condition such as Alzheimer's disease, often report high levels of stress; and care giving has been associated with prolonged immune dysregulation. Immune dysregulation can persist several years or more after caretaking ends.
D. Volunteers were inoculated with several different strains of cold viruses. Thereafter, stressors that lasted a month or more were the best predictors of developing colds.
E. Marital discord, a persistent interpersonal stressor, has been associated with poorer immune functioning.
F. Other long-term stressors associated with continuing immune alterations include 'burn-out' at work, job strain, and unemployment.
G. According to research under some circumstances, immune dysregulation may persist for months or years after the event. Immunological changes have been documented for weeks or months after such natural disasters as earthquakes and hurricanes.

The sympathetic nervous system is stabilised by its counterpart – the parasympathetic system. Accordingly, both systems co-exist and mediate each other.

Where the sympathetic nervous system diverts blood away from the digestive tract and towards the muscles, the parasympathetic does the opposite. Where the sympathetic nervous system speeds up the heart rate, the parasympathetic slows it

down. In addition, the parasympathetic nervous system lowers blood pressure and breathing rate, increases energy storage, promotes growth, and generally induces relaxation.

Stress management techniques such as meditation, biofeedback and hypnosis aim to elicit this positive parasympathetic state.

It may seem desirable for the parasympathetic state to be constantly active, but this is not true. Just as over activity of the stress response can lead to disease, so can under activity of this response. Among the disorders that may possibly be related to an abnormal decrease in the stress response are inflammatory diseases, such as rheumatoid arthritis; certain types of depression, such as seasonal depression; chronic fatigue syndrome and under activity of the thyroid gland (hypothyroidism) (Sali 1997; Kaplan 1999; Kiecolt-Glaser et al 2002; Kaye et al 2000).

6.2.2 Positive ways to reach and maintain a healthier lifestyle

Kabat-Zinn (1990) maintains that we need to be aware of what triggers our own stress responses and then we can find appropriate ways in which to deal with them. "Healing is a transformation of view rather than a cure… People tend to see more through their thoughts and opinions than through their eyes" (Kabat-Zinn 1990:184).

He expresses how our thoughts act as a kind of veil preventing us from seeing things with fresh eyes. Accordingly, if you interpret an event as threatening, the chances are that it will be taxing. However if you see it differently, the same event may become less stressful (ibid).

Miller (1997: 168) affirms that healing is a "…perceptual shift away from fragmentation towards wholeness…." He says that healing implies the possibility for us to relate differently to stress, illness, disability and even death as we learn to see with eyes of wholeness. He says that the awareness may help to free us from

the stress reactions itself. Kabat-Zinn (1990: 241) affirms that it is "…not so much the stressor in our lives but how we see them and what we do with them that determines how much we are at their mercy." He continues, "If we can change the way we see, we can change the way we respond. When we bring awareness to it, we already change the situation by not being unconscious and on automatic pilot anymore. We remain fully present while the stressful event is unfolding" (Kabat-Zinn 1990: 265). It seems that we can become part of the whole situation, increasing our awareness, thereby changing our perception of the problem, giving us a range of alternative options as depicted in the solution to the 9-dot problem (Chapter 2.3).

However, Kabat-Zinn further describes that this inner response would be an awful lot to ask of ourselves in a stressful situation. He says that awareness and centeredness does not come out of nowhere. He admits that it can be very difficult to "just will" our mind and body to be calm, when we are feeling stressed out. He says that this is the reason we need to train the mind and body to respond in this way by developing and deepening these qualities through formal meditation. He continues that this transformation of view comes about by encountering ones own wholeness, catalysed by meditation practice (to be discussed in more detail further in this chapter).

6.2.3 Relaxation

Relaxation is considered of great importance in maintaining a healthy lifestyle. Miller (1997:175) states that relaxation is a specific antidote to stress. He argues that "when we are feeling stressed out… we are reacting mentally, emotionally, and physically as though there was an immediate defensive solution to a threat or a demand we perceive." He continues that in many cases there may not be an actual threat or demand. Often we just respond with the fight–flight response, which as discussed above, may just compound issues. Miller states these immediate responses may result in a chronic state of physical and emotional tension, from which arises so many diseases and disorders. He affirms that the "immediate benefit of even a single deep relaxation experience is dramatic in lowering our

perception of stress." Along with this comes clarity of mind, comfort with a lowering of blood pressure, relaxation of muscles and an increased sense of warmth and serenity (ibid).

Bruno (2002) claims that the relaxation response is an antidote to the effects of the stress response and that it enhances the effectiveness of the body's defences and self-repair mechanisms.

"Actually relaxation is not about something we do; it is about something we don't do" (Miller 1997:173).
"A level of total, deep relaxation is the most important precondition for cutting any disorder. The underlying concept is that the body knows how to maintain balance unless thrown off by disease; therefore, if one wants to restore the body's own healing ability, everything should be done to bring it back into balance. It is a simple notion that has profound consequences" (Chopra 1990: 12).

Kabat-Zinn does however mention that practically speaking, only through regular meditation and relaxation (which he calls mindfulness[13] meditation) "could we possibly hope that our calmness and awareness would be strong enough and reliable enough to assist us in responding in a balanced and imaginative way when we are stressed" (Kabat-Zinn 1990: 266).

Therefore we need to spend quality time questioning our inner dialogues and beliefs; taking cognisance of how our habitual thinking puts us in a box of our own creation and limits our own possibilities.

Accordingly, it is therefore suggested that when taking cognisance of our habitual thoughts of the world and ourselves, we are able to become more aware of the 'self-fulfilling prophecies' (positive and negative) that we may be creating for ourselves.

The researcher does not seek to diminish or demean occurrences, whereby stressors are completely appropriate. The intent is to introduce the interpretations of authors in the overall context of their theory and practice.
Following this, many authors, including Kabat-Zinn (1990) and Smith (1997) advise that the transactional view of psychological stress implies that we can be more resistant to stress if we build up our resources and enhance our physical and psychological well being in general (via exercise and mediation, for example) during the times when we do not feel overwhelmed.
Examples of outer resources that could help buffer our experiences of stress, could be family members, friends and membership in supportive groups. Support networks provide opportunities for members to deal with stress collectively.
Examples of inner resources include: human beliefs about our ability to deal with adversity; views of ourselves as a person; our views on change; religious beliefs; levels of stress hardiness; sense of coherence and affiliated trust.

6.2.4 The Immune Power Personality Traits

Dreher (1995), along with the authors already discussed thus far, emphasises that the key to mind-body health is how we respond to stress. He asks, whether we respond with hopelessness or hope? Helplessness or a sense of control? Despair or fighting spirit? Depression or grief that felt resolved? Bottled-up rage or healthy anger? Anxiety or tranquillity? Panic or rationality? Demoralisation or commitment?

Dreher (1995: 20) further asks the question as to "What part of our being generates plans of action to cope with stress? What causes us to act against our own interests, or not to act at all?" He replies that the answers to these questions involve our personalities. He states that "our tendency to respond to circumstances with certain emotions and our behaviour patterns in the face of stress, are expressions of our character."

Dreher states that he utilises theories derived from personality psychologists. He believes that people are born with traits that are shaped and transformed

throughout our life. He feels that genetic inheritance contributes towards the overall personality blueprint - the rest being derived from upbringing. Accordingly, he believes that free will and choice enable people to undergo remarkable transformations, but that people must recognise that they are dealt certain cards, by nature and by nurture, to start with. An example that he uses, is that if resignation is an ingrained trait, then we will become hopeless after the break-up of a romantic relationship. If optimism is ingrained, we may grieve, but ultimately get on with our lives. He states that the template for how we feel, and how we express those feelings, is anchored in our personalities; as well as the template for how we behave when we are stressed.

According to many scientific researches and reports in the field of psychoneuroimmunology there is "…information about a type of personality that we can develop to keep us healthy and young. It is called the immune power personality" (Clarke-Pelton 2004: http://www.sandiagotherapist.com/immunepower.html).

There are many controversial discussions around the word 'personality'.
The Microsoft Encarta dictionary (2004) defines personality as "somebody's set of characteristics: the totality of somebody's attitudes, interests, behavioural patterns, emotional responses, social roles, and other individual traits that endure over long periods of time". However Bateson (1979:146), when discussing the concept of personality, states that " it is nonsense to talk about 'dependency' or 'aggressiveness' …" He continues that all such words have their roots in what happens between persons, not in something - or inside a person." He insists that the interaction and relationships between people is of significance, to how people will behave; and not what individual characteristics they may have. He calls this the 'dormitive' explanation, and notes that we can only consider people in interaction and in relationship with others, never in terms of their own individual traits.

There are many other views and discussions about the terminology of the word 'personality', but it is not apt to enunciate these in this thesis. Instead, this thesis

narrates the significant, scientific researches, which are pertinent, as found in psychoneuroimmunology literature. (While thinking about the immune power traits it may be interesting to keep in mind Bateson's explanation of the dormitive principle).

When discussing this topic, Margo de Kooker (2001) does not use the word 'personality 'per se. She calls these traits the "Rings of Immune Power". She describes them as qualities or attitudes that people may already have or need to develop when working from a mind body and psychoneuroimmunology perspective.

This research is not intended to list verbose details of examples and accordingly the reader is invited to refer to the reference list in order to obtain this information, if required.
The book 'The Immune Power Personality' by Henry Dreher (1995), gives scientific research performed by various investigators presenting experiments, data and case histories which show that these immune power traits demonstrably improve physical health. It provides therapeutic suggestions and specific exercises that can be applied to cultivate immune power traits for better health. Dreher worked extensively with AIDS patients and goes on to state that the significance of these 'immune power trait' discoveries go well beyond the confines of this singular disease, instead being appropriate for many other diseases associated with dysfunctional immune systems – including cancer, arthritis, asthma, allergies, herpes and other viral infections.

Different authors also emphasise different immune power traits, all of which are based on similar concepts and are overlapping. The majority of the following information is from the work of de Kooker and Dreher.

Dreher describes how, over a number of decades, large bodies of research have investigated 'harmful' personality traits that contribute to ill health. Many biologists, psychiatrists and people in the health professions have trained their scientific sights on the causes of sickness. Scientists have recently begun to understand the nature of health and have discovered the importance of positive

personality traits, along with 'ways of coping' and 'being', that nourish our physical health. He feels that there has been an obsession with pathology in medical research, which has produced too little data on factors that promote health. He discusses Abraham Maslow's claim that his fellow psychologists knew a great deal about mental illness and almost nothing about mental health. However, Dreher states that this is all changing. He states especially with the introduction of psychoneuroimmunology, there is literature research and practical ways of understanding our inner recourses, our potentials and what mind-states may be positive or negative for our health.

In general terms what Dreher is saying is that we have ingrained habits and behaviour patterns that we have developed through out our lives. We need to take the time to examine these habits, maintaining the ones that are working for us, and developing and transforming new ones where appropriate. The purpose of mentioning the immune power traits is just to introduce from a psychoneuroimmunology perspective, traits that have been found to be useful and effective in preventing and assisting with the treatment of illnesses. Dreher states that the purpose of immune power personality development is not to extinguish our 'dark side', but to reopen channels to parts of ourselves that we have split off from consciousness. He states that these ideas represent the views shared by psychologists such as Abraham Maslow, Carl Rogers and Karl Menninger, in that we can recover what they call 'healthy mind states' and traits that we have lost contact with.

The literature about the immune power traits also warns us not to use these traits to oversimplify the mind body link in illness. The writers mentioned do state that understanding personality and emotions are only one set of contributors to disease and health. There may be other overriding factors that play a role in the disease, for example genetics, diet and lifestyle. However, the researcher concentrated on the portion that 'thoughts' play in this immune power personality concept, as this is the most pertinent to social workers, who are able to assist clients with their mental and physical health.

Dreher (1995:15) states that the "Immune Power Personality is founded on a realistic, scientific basis for mind-body empowerment, not omnipotence. Our brains

do not grant us total conscious control of our immune systems. But, we can change our behaviour, thoughts and feelings, and in doing so, this changes our physiology – including our immune responses. We do not create our biological reality, but we can affect it."

Margo de Kooker (2001) describes 6 rings of immune power:

A. Bodymind communication
B. Hardiness
C. Expressing emotions and capacity to confide
D. Trust, compassion and altruism
E. Purpose and passion for life
F. Self complexity

A. <u>Bodymind communication</u>

This includes the ability of an individual to pay attention to bodymind feedback. When an individual is able to attend, connect and express himself/ herself, they usually have a greater sense of self awareness and emotional awareness. There is a general feeling when an individual is living their lives in this way that they have more 'control' over their emotional life and improved physical health.

B. <u>Hardiness</u>

Hardiness is a collection of attitudes that function as a resistance in the encounter with stress life events. It consists of commitment, control and challenge. These attributes act as a buffer against stress and lay the foundation for motivation based on a sense of meaning and the potential for personal growth.

- Commitment means being intensively involved in what you are doing, finding meaning and value in it.
- Control means feeling powerful enough to affect a situation in some way.

- Challenge means being stimulated by stress, rather than experiencing it as a threat.

Hopelessness and helplessness are the opposite of hardiness. This complex of attitudes does not cause disease, but can lower resistance, and in those who are already predisposed or disposed, it may precipitate disease or disease progression.

C. Expressing emotions and capacity to confide

The suppression of emotions has been demonstrated to be one of the most powerful psychological factors to immune system dysfunction. According to de Kooker, the research in this area is vast and applies to a wide range of conditions. She says that the research indicates that some form of active expression is needed (e.g. activities, talking, writing, hitting) in order to get the emotions out of the body. Thinking about feelings without active expression does not help our mind body system produce any immunological benefits.

De Kooker's workbook gives examples of researchers that have conducted numerous studies, also listing articles with references of where to find their studies. Further pertinent references to consult at this time are as follows:

- Orr (1994). Coping with HIV-seropositive status: a psychoneuroimmunological perspective.
- Solano (1993). Psychosocial factors and clinical evolution in HIV-1: a longitudinal study.
- Mendolia & Kleck (1993). Effects of talking about a stressful event on arousal: does what we talk make a difference?
- Pennebaker, Koecolt Glaser & Glaser (1998). Disclosure of traumas and immune function: health implications for psychotherapy.

The capacity to confide in others has been shown to be a significant buffer against mental and emotional distress. Studies have shown that individuals with this capacity have stronger, more balanced immune systems. Self-disclosure

(admitting to ourselves how we feel and owning our emotions) is also health enhancing.

Examples of further references are:

- Pennebaker & Beall (1986). Confronting a traumatic event: towards an understanding of inhibition and disease.
- Pennebaker, Hughs & O' Heeron (1987). The psychophysiology of confession: linking inhibitory and disease.
- Gross (1989). Emotional expression in cancer onset and progression.

According to Dreher, research has shown that our health is protected when we express the full range or emotions, including the so-called 'negative' ones. He says that when we find constructive ways to express anger, grief and fear, we prevent lapses into hopelessness, depression and passivity. Dreher and his researchers maintain that bottling up feelings makes it more likely that we will be stuck in chronic states of distress. He claims that unless we explore and express these primary human emotions, we cannot receive the information they carry. Understanding and expressing positive emotions are also beneficial to health and well being. For example, some people may block expressions of joy, pleasure and hope, which all have impacts on our immune systems.

De Kooker states that when discussing emotions of fear, the thoughts and feelings associated with it have powerful effects on the immune system functioning. She gives an example that when a person is afraid, they can do one of several things. They can either flee the situation or try to ignore their fear, or face the fear head on. Depending on a person's general coping style, fear either reinforces their feelings of helplessness, hopelessness, or it drives them further to control or the desire to succeed. Fear, especially chronic fear, may create a great deal of distress and may result in dramatic immune alterations.

D. Trust, compassion and altruism

According to De Kooker, the motivation to form connections with others based on mutual respect and trust, is closely related to unconditional love. Clark-Pelton (2004) states that research shows that people who have healthy relationships, and extend and receive unconditional love become sick less frequently and live longer. She claims that people committed to helping others often experience the 'helpers' high, which is not only an emotional and spiritual experience, but physical as well. She maintains that love is a great healer of many ills, emotional, physical and mental. De Kooker states that helpers also experience a greater sense of control, because he/she partakes in services activities that make him/ her feel good and committed to other human beings or a higher cause.

E. Purpose and passion for life

De Kooker affirms that having a sense of purpose means living with the attitudes of commitment, control and challenge in every moment. Purpose is striving for a deeper understanding of that which seems to lie beyond the self; and creating meaning even when circumstances seem hopeless. Being able to create a personal sense of meaning in life, results in a motivation for 'healthy living' and a way to express this passion in you life in a multitude of ways.

F. Self complexity

According to Dreher, self complexity brings together elements from all previous traits, in suggesting that we optimise our state of mind-body health when we accept and nurture all facets of ourselves. When we can self discover these facets, we find alternatives to old, habitual patterns; new ways of coping with stress; and new sources of pleasure and meaning in our lives.

De Kooker claims that self complexity is that trait of having many traits. She maintains that this allows for flexibility in coping and provides a wide repertoire of internal resources.

6.2.5 Mindfulness-Based Stress Reduction (MBSR)

According to Kabat-Zinn all these 'character traits', or rings of immune power discussed in 6.2.4, can be strengthened by practicing mindfulness meditation.

According to Reibel, Greeson, Brainard & Rosenzweig (2001:183), mindfulness meditation is a moment-to-moment awareness that is intentionally non-reactive and non- judgmental. Mindfulness meditation helps in facing all aspects of life, however painful, with increasing degrees of equanimity, wisdom and compassion. It empowers people to respond consciously rather than to react automatically to events.

In 1979, MBSR (Mindfulness-Based Stress Reduction) - a clinical programme - was founded by Jon Kabat-Zinn. This was developed to facilitate adaptation to medical illness, that provides systematic training in mindfulness meditation as a self-regulatory approach to stress reduction and emotion management (ibid).

Reibel et al (ibid) describe MBSR programmes as designs to teach patients with chronic medical conditions how to live fuller, healthier, more adaptive lives. "It is a clinical group intervention that is patient centred, experiential and educational." The core of the programme involves intensive training in mindfulness meditation and its applications for daily living in coping with stress, pain and illness.

In 2002, Bishop (2002:71) estimated 240 Mindfulness-Based Stress Reduction (MBSR) clinics in North America and Europe. He added, "New programs are being established each year."

The researcher found extensive research done on MBSR programmes. The results of one such MBSR research states that, "In summary, the results of this observational study demonstrates that an 8-week training program in mindfulness meditation is associated with significant and clinically relevant improvements in health–related quality of life, medical symptoms, and psychological distress among patients with chronic health problems. In addition, our study suggests that initial

improvements in physical and mental functioning and well being might be maintained in some MBSR participants up to 1 year following completion on the intervention" (Reibel et al 2001:191).

6.2.6 Behavioural Medicine offers hope

Behavioural Medicine therefore offers us hope. In clinical programmes such as stress clinics, people are presented with opportunities to do something for themselves. They may be encouraged to utilise any of the many forms of meditation, learn to face life problems and develop personalized strategies for working with stress. In these clinics, the health care professionals are not seen as the experts with all the answers. They use themselves and programmes as vehicles to empower people to work with themselves to become healthier and more resilient. They may help patients to examine beliefs about their capabilities and expand ways in which they may see themselves and relationships in life, and the world.
Learning strategies to relax and change lifestyles (e.g. diet, exercise) may be more conducive to healthier physical and mental wellbeing (Nakao et al 2001).

The best stress reduction system is the one that works for the individual. Whether stress can be relieved by laughter, mellow music, repetition of a single word, self-massage, vigorous activity, or simply by doing everyday chores in a mindful state of heightened awareness; it is important that stress be recognized and managed every day. Studies have shown that regular relaxation eventually makes the body less responsive to its stress hormones and acts as a sort of natural tranquilizer. People can build their own immune defences against the stress response (Siegel 1988).

Modern medicine has "gained so much power over certain diseases through the use of drugs that it has forgotten about the potential strength within the patient" (Siegel 1968:65). Siegel says that he uses two tools to change the body, "emotions and imagery. These are the two ways that we can get our minds and body to communicate with each other. Our emotions and words let the body know what we expect of it, and by visualizing certain changes we can help the body bring them about" (Siegel 1986: 69).

Mind body techniques and therapies focus on the mind/body connection because thinking and emotions have physical effects on the body. These techniques encourage the individual to take control and to learn how to cope with stressors rather than trying to eliminate them. Such therapies range from individual counselling, meditation or involvement with a support group to the mystery of guided imagery and the technology of biofeedback. They all have the common goal of evoking the physiological relaxation response, in which a person can achieve such beneficial internal results as lowering blood pressure and decreasing gastric acid secretion (Reibel et al 2001; Buckley 2001).

Specific techniques and procedures such as meditation, progressive relaxation, mental imagery, autogenic training, breath therapy, hypnosis and biofeedback are detailed in Appendix B and scientifically supported in Appendix C.

6.3 Empowerment Concepts – A South African Company

In 1994 Neil Orr (Research Psychologist) and David Patient (a therapist living with AIDS for the past 21 years) developed 'Empowerment Concepts' which is a leading South African company dealing with social change. They conduct training on Community Empowerment, Behaviour Change and Health Motivation. Examples of trainings are; issues of creating a desirable future, working within peoples belief systems, combating stigma, and rolling out whole community empowerment workshops to contextualise HIV interventions.

The focus of this revolutionary training is on what it takes to empower individuals and communities into action focused process that supports the enhancement of sustainable development in and around the complexities of HIV/AIDS. Everything that is taught is based on the work they have done in the developing world and is largely a result of the 'Vida Positiva' (positive living) program, which was rolled out countrywide in Mozambique, as well as the work they have done with Global Corporate clients.

By 2002, over a period of 8 years, they trained in excess of 20,000 people, both on a country, community and business level.

Jack Lundin of Financial Mail on 6 December 2002 wrote an article, 'Positive campaign creates a network of trainers: Operating without social and economic infrastructure.' Lundin writes about how Orr and Patient "have taken psychoneuroimmunology (behaviour change) and repackaged it as Empowerment/Group Synergy. Their Empowerment Concepts Company has worked in 14 countries to guide organisations through transition and transformation."

The following has been extracted from an interview Lundin had with Orr and Patient in 2002:

Three years ago, Orr and Patient produced a small book for people living with HIV called *Positive Health* for Metropolitan Life. It is a holistic look at life, with plenty of information on what to eat and how to exercise to keep your immune system strong. About 3,5 million copies have been distributed in South Africa. A government minister from Mozambique saw a copy and now 750 000 Portuguese copies are in circulation there.

In February (2002) Orr and Patient were signed by the Mozambican government in a trail-blazing contract to work with government to tackle HIV/AIDS in that country.

Mozambique has a population of 22 million, 12%-17% of whom are estimated to be HIV-positive. Its 812 379 km² are served by just 350 doctors, of whom perhaps 200 are in public practice.

Today, the duo's 14-month *Vida Positiva* - Train-a-Trainer programme is in full swing. All 21 government ministers in Mozambique have a delegate under training - most of them at department director level. Other delegates include 132 people from nongovernmental organisations (NGOs) and 56 from church organisations.

"Mozambique doesn't have the infrastructure or capacity to handle the pandemic," says Orr. "So government decided to increase the capacity of its senior staff, the

NGOs and the rest to start dealing with the issues, all the way from prevention and home-based care to nutrition and how to stay healthy. It's a huge project."

"There are few industries in Mozambique, and those that are there have been hit hard by AIDS. They're in our training courses as well. And the international donor community, which is supplying most of the funds, is supportive of government's efforts."

The first four months of Train-a-Trainer are the basics: HIV/AIDS prevention; health motivation; and nutrition. "Then they are sent back to their communities and have to pass on this information," says Orr. "And it's monitored. After three months, if they deliver the way they should, they return for the second four months' training: topics such as support groups; home-based care; and orphan care, which they take back to their communities. When they complete the programme next April, they will be certified by the education ministry as trainers."

Orr and Patient describe the delivery programme as difficult. There is no time for window-dressing or going through the motions. "They all sign a contract, stating they will identify three people from their organisation and another three people from their community, and teach them what they've learnt," says Orr. "We call it the replica process."

The 450 people under training then will indirectly produce 2 500 trainers.

"It's a rapid delivery process," says Orr. "We've linked up with national TV and radio stations, so when we're talking about the immune system, every radio station in the country is put in touch with the delegates in their region, who are invited to speak on the radio about the issue for 30-60 minutes twice a week."

"This way, communities - there are more than 17 different languages - discover immediately who has knowledge locally and they can access it immediately."

"In countries like Mozambique, where you have few resources and few skilled personnel, you do what you can," says Orr. "It's working well."

The South African television programme, Carte Blanche, visited Patient and Orr in Mozambique on 4 May 2003 and interviewed them while conducting one of their projects - "that a powerful mind is a person's strongest suit of armour". For the complete Carte Blanche manuscript, please refer to Appendix A of this thesis.

In conclusion, this chapter has demonstrated that the information and concepts presented in this thesis, with regard to mind body medicine can be used practically.

CHAPTER 7

CONSTRUCTIVISM AND CYBERNETICS

Introduction

Thus far, Behavioural Medicine can be understood as an umbrella term using the systemic biopsychosocial model as a theoretical framework and psychoneuroimmunology research. This thesis has also noted that Behavioural Medicine and psychoneuroimmunology can be used in practice.

While the researcher was investigating and writing this thesis, she noticed that a particular epistemological foundation- known as constructivism- holds similar ideologies and values to that of Behaviour Medicine. She noted that most of the mind body concepts that she studied, seemed to have constructivism as their fundamental tenets.

The aim of this chapter is to discuss the basic concepts of constructivism and then demonstrate how they link into the theory and practice of the holistic approaches that are prevalent in this thesis.

This creates a philosophical foundation, enabling the researcher to introduce cybernetic complementarities in order to enhance the holistic understanding.

7.1 Constructivism and construing personal realties

Constructivism is "a way of thinking about people, events and problems" Fisher (1991:3).
In terms of constructivism, knowledge arises out of personally adapted realities. Simon Crosby (2000) discusses that every person's world picture is and always remains, a construct of his/her mind. Therefore the constructivists view is that there is not an objective reality 'out there', independent of the observer. Bateson (1979: 37) states that "…our brains make the images that we think we perceive."

"Truths are relative to the frame of reference of the observing systems. Knowledge is constructed as a product of social and individual assumptions and is developed through language. Meaning is constructed both internally and socially as processes of interpretation. Realities are constructed as experience, which equals the relationship between the observer and the observed." In keeping with constructivism, nothing can ever be objective, but is rather always subjective. With this view, knowledge is never true/valid or untrue/false, but simply as more or less useful/viable (Fisher 1991:15).

This reinforces the point that the way in which one views the events in their lives and the meaning in which they give to these events creates their reality and how they choose to respond to it (Discussed in Chapter 2).

As people have no access to a complete external reality, being human entails making an active effort to interpret experience by seeking purpose and significance in events - creating personal meanings – in order to understand the world and operate in it (Crosby 2000).

It is a principle of constructivism that it is impossible to know an event independently of our own construing. Construing is the process of giving meaning to events (Fisher 1991).

Crosby (2000) states that the most developed constructivist psychology is the Personal Construct Theory (PCT) assembled by George Kelly in the 1950s.

7.2 Personal Construct Theory (PCT)

In Kelly's view, Personal Construct Theory is that whatever the objective reality of a thing may be, people will give it as many meanings or interpretations as their wits enable them to contrive - that is construing. The researcher understands Kelly to mean that thinking and feeling taken together are the basis for actively making discriminations. Constructs are the basis for hypotheses we make about the world that we use to handle whatever life brings. Although we may not recognise it, there are always alternative ways to construe things, hence the possibility of therapy, which partly proceeds by exploring possibilities for personal change through personal construct adjustment (Crosby 2000). For example, if a person is overweight they may decide that they are ugly and unlovable, and they don't deserve to be happy. However, this is an image construed by that person about themselves, which will have an impact on how they view and behave in the world. They may sit alone and immediately relate what other people say around them to their weight, when it might not be the case at all. Ironically, the feelings of being unworthy may have contributed to their weight gain in the first place. Working with the way this person's believe patterns, including of how they perceive their weight, and the perceived impact it has on them, will give us clues on understanding how this person functions and how their perceptions may be having negative and positive influence on their life.

7.2.1 Constructive Alternativism

One central philosophy of Personal Constructs Theory is that of 'Constructive Alternativism'. According to Kelly this means that we do not have to be `victims of our own biography' but rather we can understand and move past what appear to us to be sacred 'objective truths' (Kelly in Kenny 1989: http://www.oikos.org/vincautopo.htm).

The following quote by Kelly, illustrates the philosophy of constructive alternativism on which his work is premised.

"What we think we know is anchored only in our own assumptions, not in the bed rock of truth itself and that world we seek to understand remains always on the horizons of our thoughts. To grasp this principle fully is to concede that everything we believe to exist appears to us the way it does because of our present constructions of it. Thus, even the most obvious things in this world are wide open to reconstruction in the future. This is what we mean by the expression constructive alternativism" (ibid).

An example would be of Christopher Reeves (also known as superman in Hollywood), who in 1995 experienced a horse accident and was left paralysed from the neck down. He had many ways in which he could construe his reality. He chose to be grateful for being alive, which was his way of perceiving and therefore behaved accordingly. He was grateful for the abilities that he still had and chose to use his tragic incident to encourage and motivate others in similar circumstances. There were of course many alternative realities and ways he could have perceived his tragedy, but this was how he chose to construe his life. If he had chosen another way to react, perhaps becoming severely depressed and apathetic, his path and behaviour would have been different having different consequences. (The researcher is not making any judgement about the correct or incorrect way to respond, only using this as an example).

Kelly's emphasis is on people taking responsibility for their personally inventing reality. He believes that there is no event, which could be called "stark reality" because there is no event, which we cannot reconstrue alternately. The central assumption is that we can invent something that is not already known or is not already in existence.

His view of alternativism is made clear when he states, "Whatever exists can be reconstrued" and "I do not believe either the client or the therapist has to lie down and let facts crawl over him" (ibid). This is a great conception when thinking in terms of the medical model, where illness have scientific names with certain ‘facts’ which apply to them, and people feel powerless to think differently about the facts.

Alternativism gives us this permission to realise that we do not have to be stuck in this way of thinking.

He adds this clarification, "... for me to say that whatever exists can be reconstrued is by no manner or means to say that it makes no difference how it is reconstrued. Quite the contrary. It often makes a world of difference. Some reconstructions may open fresh channels for a rich and productive life. Others may offer one no alternative, save suicide" (Kelly in Kenny 1989: http://www.oikos.org/vincautopo.htm). The researcher once again refers to the example above about Christopher Reeves.

7.3 Circular view of causality

Mahoney (1988 in Steinfeld 2000) believes that constructivism is consistent with holistic approaches to healing which integrate mind, body and spirit. He states that constructivism tends towards a holistic framework, which is compatible with systemic, interactional and reciprocal conceptual views of the relation between cognition, affect and behaviour. Therefore, when trying to explain motivational dynamics, a circular view of causality is appropriate rather than a linear progressive view of causation. Watzlawick, Beavin & Jackson (1967) states that in linear thinking it is meaningful to talk about a beginning and an end. But with a circular view there is no beginning or end. This is relevant with health and illness, in that we have seen how complex wellbeing is and how we need to take into account all the biopsychosocial aspects of a person when understanding their lives and illnesses. The other important aspect that circular causation takes into consideration is how meaning and context have an impact on how a person thinks and their subsequent behaviour. Linear causation does not take these aspects into consideration. According to Keeney (1983:14), “Nonlinear epistemology emphasises ecology, relationship and whole systems. In contrast to linear epistemology, it is attuned to interrelation, complexity and context.”

7.4 Theory of Logical Types

The researcher uses the author Watzlawick to help understand how constructivism gives us a more comprehensible picture of life and its event. Watzlawick suggests that it is helpful to categorise two different realities: the first reality is the physical properties of things - he calls this first-order reality. Then second-order reality is the attributed meanings, significance, or value that people give things - their constructs (Watzlawick et al 1967).

First and second order realities are described by Watzlawick as the "Theory of Logical Types" (Watzlawick et al 1967: 11), which is a hierarchy of logical levels. "The use of logical typing[14] sometimes suggests that our world of experience is hierarchically structured. For instance, we may distinguish a multivolume encyclopaedia from a book, and a book from a page" (Keeney 1983:40).
First and second order reality can be connected to health and disease. In this thesis, at least two jumps from first to second order levels of hierarchy will be addressed:

1. To go from just the body to including the mind, in holistic health care, is the first jump in hierarchy.

2. Then to go from the mind/body link to giving meaning to beliefs and interpretations (which has behavioural consequences), is another jump in logical levels.

7.4.1 Implications of these logical jumps

The 1st implication: Adding mind and body in holistic health care
Bateson asks: "What is the bonus of combining information from 2 or more sources?" His answer, "2 descriptions are better than one" (Bateson 1979:77).
He says that combination of diverse pieces of information defines a great powerful approach which enable us to determine 'patterns that connect' entities. This would obviously be very useful when diagnosing and assisting people will disease.

He describes the idea of binocular vision, explaining that when looking through one eye we get a certain limited vision. The same if looking through the other eye alone. However when looking through the lenses of both your eyes, depth is created.
He says "… the information provided by the one retina and that provided by the other is itself information of a different logical type. From this new sort of information, the seer adds an extra dimension to seeing" (Bateson, 1979:80). Once we include the mind to the body, we are getting a more holistic picture. We are getting a 'binocular view' of health and disease.

The information that is being combined to form a more holistic picture can also be seen as related, not separated pieces of information. In order to explain what is meant by this, the researcher finds it appropriate to introduce cybernetic epistemology.

Cybernetic epistemology

A Cybertician tries to achieve this double view of description, as described by Bateson above.

Keeney suggests that cybernetic epistemology proposes that we embrace both sides of any distinction. One way of acknowledging both sides of these distinctions involves viewing them as parts of 'cybernetic complementarities'.

Cybernetic complementarities provide an alternative framework for examining distinctions. "For most part, people take distinctions to representations of an 'either/or' duality, a polarity or a clash of opposites, or an expression with a logic of negation underlying it (e.g. A/not A: right/wrong: good/bad)"
(Keeney 1983: 92) and for our purposes mind/body. However, Varela (1976 in Keeney 1983: 92) proposed another way of looking at distinctions is through the epistemological lens of cybernetics. "If you consider both sides differently but related, you approach a cybernetic framing of distinction."

In the world of cybernetics, both parts and wholes are examined in terms of their patterns of organisation. Instead of looking at the world in terms of either/or duality, we see it as and/both patterns, where each is a partial arc of the whole dimension (Keeney 1983). Therefore, instead of seeing health as an 'either or duality' determined by our mind or our physical body alone, we should see mind and body as two partial arcs of the whole dimension, of health. For example, the same as you would need a head side and tail side to give you a coin, the mind and body could be seen as two complementary sides of health.

Seeing health from a cybernetic perspective may require changing our habit of viewing its components exclusively. This means avoiding linear dichotomies between mind and body. Our goal is to develop a double view of pattern and material, mind and body. Cybernetics enables us to encounter mind in therapy while not forgetting the bodies that embody it (and visa versa). It suggests that dismembered sides of the mind and body dualism be reconnected, to depict whole patterns of health recursively. Therefore, the mind and body have impacts on health; and health has impacts on the mind and body recursively.

Understanding dynamics from a cybernetic perspective has implications for the therapeutic relationship. "Double description suggests that the relationship between the therapist and client can also been seen as cybernetically complementary" (Keeney 1983:55). Therefore, this relationship has implications for therapy, as the therapist and client are also different sides of the same therapeutic system. This alternative epistemology manifests by therapists who view their relationship with clients as part of the process of change, learning and evolution. Miller has stated on numerous occasions that the nature of his relationship with his patients is by far the most powerful aspect of healing, "a rich reservoir of energy and guidance for the healing process! I came to see that the hand that gives the pill is more often a more potent healing force than the pill itself" (Miller 1997:2).

The 2nd implication: giving meaning to beliefs and interpretations

"The map is not the territory and the name is not the thing being named" (Bateson 1979: 37). Bateson says that this statement made famous by Alfred reminds us in a general way "…when we think of coconuts and pigs, there are no coconuts and pigs in the brain" (ibid). He continues, "… our brains make the images that we think we perceive" and "the very process of perception is an act of logical typing." In addition, "… the jump to the second order level gives multiple options" (ibid).

In a more abstract way, Korzybski's statement asserts that in all thought, perception or communication about perception, there is a transformation, a coding, between that report and the thing being reported (ibid). Watzlawick et al (1967: 51) in their book 'Pragmatics of Human Communication' discuss this 'transformation' in terms of "content and relationship levels of communication." They discuss every communication as having content and a relationship aspect, such that the latter classifies the former and is therefore a meta communication. For example, a flag (data or content) can be seen as a sort of name (how Bateson would describe it) of country or organisation it represents. However, the relationship one might have with that flag gives it meaning; and perhaps the flag is now sacramental representing something for that person, giving it meaning. If someone was to step on that flag, that person may respond with rage, depending on the meaning that that flag represents for that person. This demonstrates a jump in logical levels, from the object, flag… to the interpretation given to it (which put it on a higher order of distinction), which then effects that persons behaviour.

The researcher understands a connection, when comparing the above, to illness and treatment. She suggests that when a person is diagnosed with some kind of disease - that the disease - is the "thing being named" in Bateson's terms and according to Watzlawick et al, 'a first order reality'. Then the interpretation, and perception that are given to this name (the disease), will have a huge effect on how this disease is interpreted, perceived and accordingly handled. For example, if someone is diagnosed with a lung cancer, this is the name (data/ content) given to a certain disease. However, the interpretations and beliefs that the person attributes to this, will change the way they may respond. Two people may be

diagnoses with the same diagnosis (i.e. lung cancer), however how they perceive and respond may be different. For example, one person may see it as a death sentence; another may see it as an opportunity to stop smoking and change their lifestyle and relationship habits. The way they choose to perceive and understand their illness, will have consequences on how they deal with the information. To take this one step further; according to research discussed in this thesis, the way we may deal with this information may also have consequences for the strength of the immune system. This can be related to the Immune Power Traits discussed in chapter 6 paragraph 6.2.4.

7.5 Second-order realities

Adding Watzlawick to Kelly, we can say that with our personal interpretations of our world, we construct our individual, social, scientific and ideological second order realities. Once constructed, our second-order realities determine our idea of the world and hence what we do in it. Our thoughts, feelings, decisions and actions arise out of these constructs. We therefore believe that our reality may be the 'truth', the only reality there is. However, we need to consider that we created these constructs about the world and we live by them. An irony is once the world is seen in such a given way; this way of seeing actually creates that world.

Usually we may not even be aware of our constructs as such and sometimes we behave as if they existed independently of us - especially those our culture embraces. According to Watzlawick et al (1974), our constructs create a personal world specific to us, which persists unless modified by therapy or by some other means.

The concept that we can create our own constructs of the world (hence constructivism), helps us to take responsibility for our lives and empowers us to feel that we have the power to act on our lives and what happens to us. This is another area where the mind/body theory and concepts are congruent with constructivism.

The research therefore proposes that constructivism to be seen as an epistemological foundation for mind body (Behavioural) Medicine. This then gives a philosophical foundation in which to hold all the theories discussed in this thesis.

The researcher will now discuss how all the concepts and theories discussed in this thesis have relevance for the social work professional within the health care field.

CHAPTER 8

SOCIAL WORK IN HEALTH CARE

Introduction

Wallace et al (1984) in their book "Clinical Social Work in Health Care" estimated that in the past 15 years, the number of social workers (in America) employed in the health setting had increased to 40 000. They believed that the increase came about as a response to many factors; some being the growing awareness that health care involves attention to psychosocial as well as biomedical issues. They report that nearly half of physician's time is estimated to be consumed by non-medical problems. They state that the problems with which patients present, have become recognised as so complex that more comprehensive clinical skills are required for effective assessment and intervention in the health setting.

This chapter examine the development of medical social work. It defines the current definition of social work, which was adopted by the International Federation of Social Workers (IFSW) in 2000. The researcher then discusses how this definition links to the work of Behavioural Medicine. The researcher then debates how social workers should be involved in health care services in a more holistic way. She proposes that social workers that work within this field should be known as 'Health Care Social Workers'. An explanation of how this term was derived is explored.

8.1 Development of medical social work

The treatment of disease and practice of medicine existed long before hospitals. Frequent references are made to methods of caring for the sick and to the maintenance of health in the Old Testament and references are also found in Egyptian papyri and in early Indian and Greek writings (Brock 1971:8).

Wallace et al (1984) states that social work first became involved in the delivery of medical care because the social and environmental components of some diseases (e.g. tuberculosis and venereal disease) could not go unaddressed and many of the actual social work practitioners in the health care setting emerged from the ranks of nursing. They allege that as early as the 1860's it was recognised that someone was needed to check patients homes to make sure that there were not conditions there which might cause or exacerbate illness. Though a few home visit positions had been developed at outpatient clinics and hospitals by 1890, the last decade of the nineteenth century was a major point in recognising the psychosocial aspects of physical illness.

Brock (1971) describes how early in history, the pious belief that sickness was God's punishment for sin, did much to deter intervention on behalf of the sufferer and held back the development of social work in health settings. At the end of the 19th century, concern for the social being was given over to the care of the almoners. The first connotation of social work was the giver of charity or alms. This concept carried over to the hospitals setting and the first social workers in hospitals were called almoners. In America, social workers in hospitals were first called hospital social workers, and later medical social workers. However, apparently long before the first almoners, some hospitals had a Samaritan Society that provided a fund from which material assistance was given to discharge patients, particularly to those who needed money to pay for transportation home.

Wallace et al (1984:3) establishes that "the involvement of social work with medicine was an inevitable outgrowth of the attempt to improve the quality of medical care. The widespread recruitment of social workers into medical care began in the early twentieth century. Recognition of the need for social workers coincided with the realization that a patient's disease could not be treated without taking into account that social circumstances of the patient's life."

Wallace et al (1984) continues that medical social work increased its visibility during and after World War I. He asserts that the 'war years' led to masses of medical social workers being recruited to work with families and returning veterans

in the armed services, Red Cross and Administration. This led to expansion of skilled medical social work. As well as the demands of the war, medical social work was needed urgently for the influenza epidemic of 1918. He says that these social workers were needed to care for the sick in hospitals and homes, arrange childcare, make burial arrangements and provide charity in the absence of wages. He continues that in addition to influenza, tuberculosis and venereal disease were also highly communicable diseases presenting public health hazards at that time. However, he confirms that today there is an increasing recognition that biomedical, psychological and social- environmental components of health and illness are interrelated.

Brock (1971:25) states that an understanding of the role of medical social work has to be "based on a comprehension of the nature and aims of social work itself since medical social work is social work practiced in a health setting whether it be general or specialised hospital, health department or a community clinic." In Brock's opinion, the phrase social work in health settings is too cumbersome for daily use, so it is usually called medical social work.

8.2 Definition of Social Work

"The social work profession promotes social change, problem solving in human relationships and the empowerment and liberation of people to enhance well-being. Utilising theories of human behaviour and social systems, social work intervenes at the points where people interact with their environments. Principles of human rights and social justice are fundamental to social work"
(Adopted by the International Federation of Social Workers (IFSW) at a General Meeting in Montréal, Canada, July 2000
http://www.ifsw.org/Publications/4.6e.pub.html).

This international definition of the social work profession replaces the IFSW definition adopted in 1982. It is understood that social work in the 21st century is dynamic and evolving and therefore no definition should be regarded as exhaustive.

The following information was extracted from the IFSW General Meeting in 2000.

It was discussed how social work in its various forms addresses the multiple, complex transactions between people and their environments. Its mission is to enable all people to develop their full potential, enrich their lives, and prevent dysfunction.

The values of social work grew out of humanitarian and democratic ideals, and its values are based on respect for the equality, worth, and dignity of all people. Since its beginnings, over a century ago, social work practice has focused on meeting human needs and developing human potential.

Social work theory recognises the complexity of interactions between human beings and their environment. A human being's capacity to be affected by and to alter the multiple influences upon them includes bio-psychosocial factors.

Practice social work utilises a variety of skills, techniques and activities consistent with its holistic focus on persons and their environments. Social work interventions range from person-focused psychosocial processes to involvement in social policy, planning and development.

Behavioural Medicine and its values, theory and practice can therefore be seen to be in line with the same of social work. All the theories, concepts and models discussed (including biopsychosocial model and psychoneuroimmunology) all follow the same ideologies as the definition of social work. It has been demonstrated that the mind body approach is consistent and corresponds with the new definition of social work, which was described above.

It can therefore be stated that social workers should play a substantial role in the prevention and maintenance of health care. It can also be debated to what extend social workers are already performing this role. However, the researcher suggests that social workers should be more involved and visible, working and contributing to our health care services in a more holistic way. Rosenberg (1983:52) states that "new generations of social workers in health care settings will be expected to bring an understanding of the biopsychosocial aspects of illness and a knowledge of

attitudes, behaviours, and reactions associated with illness and stress, all well integrated into a framework that is applicable to quality social work practice. As one of many professionals involved in patient care, the social worker in health care settings must be able to make choices reflecting patient's needs and service demands and must have an understanding of the health care system as well as of patterns of access to and delivery of health services to different population groups."

8.3 Social workers in the field of health care

Social work has proven itself to be a unique profession that uses a constellation of hybrid and eclectic knowledge. "Our ability to borrow from many others that which is useful to our clients has helped us forge a pragmatic social work approach that is versatile and flexible. Owing to our awareness of systems, we are also very comfortable with the idea of multifactor determination or co-contribution" (Rosenberg et al 1983:155).

Wallace et al (1984) state that ones rapidly changing context in health care involves beliefs and practices outside the traditional allopathic[15] system of medical care in which many social workers practice. A longstanding strength of social work practice is its sensitivity to the social, environmental and cultural contexts that shape people's lives. Wallace et al (1984:1) states that "the clinical model required for effective comprehensive care in the health setting is biopsychosocial in content and multidisciplinary in practice."

The points that Wallace et al (1984) and Rosenberg et al (1983) make are both compatible with the mind body approach.

However, the researcher does not believe that medical or hospital social work is the correct terminology for this work. She agrees that this is a specialised field within the social work profession, but is of the opinion that medical social work utilises the medical model, which works more on pathological lines; which is not in accordance with this thesis or the concepts and theories that have been discussed. Visser states, "The pathogenic paradigm views the individual as a 'patient', which literally

means "being in a state of suffering" (Latin '*pati'* translated into English means 'suffer'). There is an implication of having to submit passively to ones lot in life, as a pawn shifted around by a will beyond oneself" (Visser 1990: 19).
The mind /body approach emphasizes people's basic wellness and their power to become well. The role of the social worker is also, by implication, not that of a powerful fixer-up of weak, dependent patients, but of an empowering resource that can facilitate and assist people in resolving difficult and challenging situations in their lives. (This is consistent once again with the definition of social work discussed above).

Social workers in the health care field can help clients view themselves as partners in the healing process. Because we believe that people are responsible for their own health, clients are often encouraged to take charge of their own health care choices.

Therefore, this 'field' is much broader than what was formally known as medical social work, and the interventions and implications are much more dynamic in nature.

8.4 Health Psychology and Health Care Social Work

In the late 1970's a field within the discipline of psychology emerged. It was called health psychology which was defined in 1982 by Joseph Matarazzo (Sarafino 1998:14) as "…the aggregate of the specific educational, scientific and professional contributions of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illness, the identification of etiological and diagnostic correlates of health, illness, and related dysfunction and to the analysis and improvement of the health care system and health policy formation."

Visser (1990: preface) states that health psychology is a new and important field in South Africa. He claims that "escalating medical costs, the realisation of the close interaction between mind and body and the much needed focus on prevention of

illness and promotion of health are forces that stimulated the development of health psychology in South Africa."

Prinsloo (in Visser 1990) states that health psychology is one of the modern disciplines of psychology that is developing rapidly in the United States and Germany. He says it is a growing interest in South Africa and is seen as an important development in psychology, especially at this stage in time when difficult social-economic circumstances could have detrimental effect on the general welfare of the population of South Africa.

The researcher is of the belief that not only psychologists should be involved in this growing health care interest. She suggests, as discussed above, that social workers have specific skills that are particularly prevalent for working in the health care field (as well as mind body work).

The researcher has therefore given comprehensive literature to demonstrate that social workers are in the best position to provide these kinds of services. She suggests that social workers working from a biopsychosocial theoretical basis, in the health care field, may be called *'Health Care Social Workers'.*

CHAPTER 9

THERAPEUTIC IMPLICATIONS OF THE HOLISTIC PARADIGM

Introduction

This thesis explains how health care should be seen from a biopsychosocial perspective understanding the 'whole' person and their circumstances in a systemic process. The previous chapter recommends that social workers should become more involved and active in the health care field. This holistic approach has therapeutic implications for Social Workers in Health Care and will be debated in this chapter.

The implications for employing the constructivist philosophy and the consequences of understanding second order realities will be examined. Other strengths of this holistic approach are narrated in combination with the implications they have for Health Care Social Workers. As this holistic paradigm is still in its developing stages in health care, it is sure to have some challenges that need to be reconciled. These are debated in the last section of this chapter. This chapter on therapeutic implications may also be read as recommendations for social workers in the health care field.

It should be noted that this chapter is structured in point/bullet format, in order to state strengths and challenges in a direct manner. Also the terms 'behaviour medicine' and 'mind/body therapies' are forthwith, utilised interchangeably.

It must also be noted for completeness, that mind body therapies are only one form of alternative / complementary[16] therapy. Examples of other alternative/complementary approaches, particularly available for reducing stress, are listed in Appendix D.

9.1 Strengths of the holistic approach & the implications for social workers

Constructivism and second order realities

- In Chapter 2.1 on 'The power of the mind' and in Chapter 7 on 'Constructivism', the importance of how we create our personal realities with our subjective perceptions and personal interpretations of our lives, is discussed in detail. Rogers (in Du Toit et al 1998:8) states that "The organism reacts to the field as it is experienced and perceived. This perceptual field is, for the individual, reality."

  According to Siegel (1988) and Du Toit (1998), the perceptions and meanings of our realities come from our concept of self; which is found in our core belief systems. Our 'self' concept usually develops on an unconscious level, which serves to construct our realities and then cope with them. These core structures govern person's maintenance processes and maintain self 'identity'. They are strongly held beliefs that represent who and what we think we are (Siegel 1988). "The self means the person's conception (perception/ experiences) of who he/she is" (Du Toit et al 1998:20). This of course is directly linked to our health and well-being.

  When relating the above to illness, it translates into addressing the meanings, perceptions and interpretations that a person may have given to a particular illness they have been diagnosed with. This has consequences with how they will respond and relate to the illness they are experiencing. Examples of this have been given throughout this thesis.

- Since we have narrated extensively about how people tend to behave based on the meaning that the situation holds for them, effective social work practice in this realm therefore requires an awareness of the client's worldview. It is important that social workers take the time to create a comfortable safe environment in order to find this information out about their client.

"A climate must be created in which clients are accepted unconditionally, without judgment or condemnation. The facilitator tries to perceive and accept the self (of the client) as it is experiences by the client" (Rogers proposition 17 in Du Toit et al 1998:60). In both mind/body therapies and the person centred approach to helping (Rogers), there is an emphasis on empathic and nurturing therapeutic relationships. Miller (1997) states that the doctor - patient relationships is important – because it has an imperative impact on the persons own inborn healing capacities. Therefore, by creating a warm and nurturing environment for our clients/patients, they will feel safe to explain to us what is happening in their world view. We cannot assume that we know. Du Toit et al (1998:4) summarise Rogers' proposition 1 by stating that individual's conscious and unconscious experiential worlds are "knowable only to the individual, which means that outsiders can only form an idea of an experience if the individual tells them about it … Only the individual can give an outsider a glimpse of what is going on inside his/her head."

With an understanding of patient belief systems, social workers and other health care professionals can more effectively recommend treatment congruent with these ideologies, thereby making treatment adherence more likely. For example, patients and clients who believe in the close link between mind and body may be more likely to incorporate guided imagery and progressive muscle relaxation into their treatment regimes that people without this belief.

- Pettinati (2001) states that mind/body approaches are congruent with people's beliefs and philosophical orientation towards health. She says that mediation, yoga and guided imagery practices are compatible with any religious tradition or with no particular religious or philosophical stance towards life. She feels that if faith is an aspect of the individual's life, it is inextricably a part of his or her journey.

Shift in perspectives

- According to Steinfeld (2000: 355) "The basic assumption for a cognitive constructivist clinical model, is that for lasting change to occur in a client, there must be a basic philosophical shift in his/ her perceptual-cognitive position about who he is, who others are and what the world is all about." Therefore, although affective, cognitive, and behaviourally orientated interventions may be eclectically employed to help shift the more surface structures of the client (and/or their disease) according to Steinfeld, their ultimate usefulness is a function of whether or not they also produce a cognitive shift in the more, core meaning system.
  Steinfeld uses the word "decentering" which implies an ability to shift perspectives in order to help people to see their realities differently (ibid). If we can help people to shift the perceptions and meanings that they have given to a particular disease for example, this may assist them in seeing their disease in a different way, which may help them cope better. For example if a person suffering from cancer sees their cancer as all encompassing and that it has been 'sent to them as a punishment from God because they are a bad person'; then working with this meaning making process (i.e. about them being bad, and this being a 'punishment sent from their God'),may be useful. A therapist could work with how they have reached this particular meaning in their life and how their disease may be effecting their core self worth as an individual, and visa versa. As long as this patient/client believes that, they are in need of punishment, it maybe difficult for the mind (and body) to allow the symptoms to be alleviated. The therapist could then assist the person in finding alternative meanings. This approach could be likened to the work done by Viktor Frankl. Frankl's approach to psychotherapy- called 'logotherapy' -places emphasis on the human being's 'will-to-meaning'. In his book 'Man's Search for Meaning', he says, "...everything can be taken from a man but one thing: the last of the human freedoms - to choose one's attitude in any given set of circumstances, to choose one's own way" (1963 :104).

If we can alter our attitudes and meanings that may be impacting on us negatively, we may eliminate 'certain thought patterns' influencing the immune system. After this, imagery and visualisation work could be used to assist the patient in altering the physical symptoms.
However it must be noted, that it is not up the therapist to decide for the client what the meanings or beliefs should be; or make them change their beliefs in they choose not to. Each person has the right to make decisions for themselves. Client self-determination is a human beings' striving to actualize and develop themselves.
Du Toit et al (1998:49) affirm that client self-determination refers to how the client sees and experiences themselves. "This self or identity might not be what an outsider sees as 'good'. But then it is not the facilitator's experience of what is good or necessary which is at stake here, but what the client sees as relevant to himself/herself."

Therefore, in Personal Construct Theory, part of the therapy task is to discover the components of the client's second-order reality (meaning they give to a disease) that are behind any trouble. Then the strategy is to replace an existing painful second-order reality with a different, tolerable second-order reality, which produces results that are more desirable. The results are what count because such solutions are no more than alternative reality constructions, which are no more real, correct, or true than any other. Explanations, hypotheses and theories (second-order realities) only have significance if they create bridges to practical results that are wanted (Mahoney 1988 in Steinfeld 2000).

Chopra (1990: 189) explains that when helping people from an Ayurvedic[17] perspective, the most important step is not to let people 'be so convinced' by their disease. "As long as a patient is convinced by his symptoms, he is caught up in a reality where "being sick' is the dominant input. The reason why meditation is so important in Ayurveda is that it leads the mind to a 'free zone' that is not touched by disease. Until you know that such a place exists, your disease will seem to be taking over completely. This is the principal delusion that needs to be shattered."

- Another interesting subject that Chopra makes mention of is research done on spontaneous cures of cancer, conducted in both the United States and Japan; which shows that just before the cures appears, almost every patient experiences a dramatic shift in awareness.

  He denotes a discrete jump from one level of functioning to a higher level, which he denotes as a quantum leap. Chopra defines quantum healing as "the ability of one mode of consciousness (the mind) to spontaneously correct the mistakes in another mode of consciousness (the body)" (Chopra 1990: 241). He postulates that quantum healing moves towards the deepest core of the mind body system. He feels that it is at this core where healing begins. He suggests that we go past the grosser levels of body cells to the junction between mind and matter; "the point where consciousness starts to have an effect" (ibid).

- For the writer/researcher Dienstfrey (1999:230), the second order 'change' comes about because of awareness. He questions in his article, 'Mind and Mindlessness in mind body research', "Why do we need to worry about the mind?" He says that in germ theory one can understand how a physical entity, like a germ or drug can initiate a physical process in the body. However, he wonders how a social situation or a psychosocial factor initiates a physiological process in the body.
  The crux for him is that there has to be an intervening step, a recognition, that the social situation or the psychosocial factor exits and the existence has some meaning to the body. "There is no stress if there is no awareness in the body that stress exists and that it is unhappy news to the organism" (ibid). For the people who, as the saying goes, 'thrive on stress', stress is happy news. He says it may be considered a challenge. However, for other people the same stress can knock them flat and leaves them gasping for air. The difference for Dienstfrey lies in awareness within the organism. This awareness determines where stress does or does not exist and whether it is, or is not a problem. He calls this awareness the mind, or property of the mind. Dienstfrey says that "… all findings of mind body research that has associated particular health outcomes with particular social situations exits

only because an awareness within the organism recognises and gives meaning to a situation" (Dienstfrey 1999: 231).

Complementary and alternative perspectives expanding health care

- We have already stated that mind and body can be seen as two partial arcs of understanding health in a systemic way. Extrapolated further, conventional medicine plus alternative approaches, gives us the holistic paradigm for health care professionals. This then provides us with an alternative framework for examining the two methods (conventional[18] and alternative medicine) utilised to compliment each other, as part of the same systemic framework, which is useful in understanding and treating health issues.

- Practitioners that practice from a complementary and alternative perspective do not want to overturn the allopathic model of health care, but rather to expand and complement it, by adding qualified providers and efficacious treatments to its practice (Padgug 1995). Padgug states that no single health paradigm has sole ownership of the truth about health and the healing process. Cybernetic Epistemology (discussed in Chapter 7) is of significance here by maintaining a 'both/and' philosophy, each offering different things and in respect compliment each other. The two ought to enrich and stimulate growth in each other.
  "The more we understand different healing traditions, the more capable we are of using (when appropriate) the resource of that approach" (Dacher in Cook, Becvar, & Pontious 2000:29). Cybernetics provides an aesthetic understanding of change, a type of respect, wonder and appreciation of natural systems often overlooked by the various fields of psychotherapy. It prescribes seeing events as organized by recursive feedback processes (Keeney 1983). This may be useful, for example, if we use stress as a symptomatic behaviour that may be seen as part of a recursive sequence of an individual's behaviour and experience.

- Providers of complementary/ alternative therapies and allopathic/conventional treatments need to work together, to recommend combinations of treatments that best meet the needs of clients and their families. They need to better understand each other's treatment paradigms. They need to drop old antagonisms and develop a mutual sense of respect (Davidson & Gaylord in Cook et al 2000).

- Psychologists and social workers should be more involved in working with other health professions to develop proactive community health programmes. In this way, strategic planning involving all health professionals may improve the health and quality of live of all South Africans (Visser 1990).

- Health care social workers can play an important role in helping allopathic health care providers understand what complementary/ alternative therapies are and which of these services their patients may be using. The debates should include the scientific foundation of these practices and their potential influence on allopathic treatment.

Biopsychosocial perspective

- Alternative/complementary services have implications for social worker practice at therapeutic, educational and research levels. According to this research, as social workers we should be more sensitive to acknowledging the unity between the mind, body, (and spirit). We should strive to help clients achieve harmony and balance between these dimensions, especially while the medical professions may just be focusing on physiological processes. Most of mind/body treatment modalities focus on helping people obtain skills and resources that facilitate the mutual healing of body, mind and spirit. Social workers should therefore be involved in promoting health and well-being.
- Tahzib & Daniel (1986 in Visser 1990) are of the opinion that traditional healers in Africa have for a long time demonstrated an understanding of biological, social, and psychological aspects when working with health issues. They therefore believe that the biopsychosocial perspective of working should be well received in Africa. Tahzib & Daniel (1986 in Visser 1990:50) confirm

that "The commonalities found in the traditional healer and the biopsychosocial models provide a unique basis for integrating First World technology with Third World needs in furthering a comprehensive health care approach in Southern Africa, in that the biopsychosocial model can restate the long acceptance and practiced unitary mind body concept of the traditional health care model within the realms of modern medicine."

Professional education

- Professional education is one way to help bridge the gap between these two treatment paradigms and their practitioners. Further integration of complementary/alternative content and therapies into social work curriculum is, per the researcher, mandatory, as are courses/educational events that focus on holistic approaches to health care and well-being.

- Advocating the expansion of social work scope of practice to include some complementary/ alternative therapies represent another target area.

- A particular way to integrate complementary/alternative therapies and allopathic health services is through conducting more research that demonstrates the efficacy of these treatments.

- The researcher proposes that competent management of health care requires knowledge about both allopathic and complementary alternative approaches. Wallace et al (1984) considers the preponderance of social problem presentations mushrooming in the medical setting. They believe that the training and education of professional social workers will need to equip them with the skills; to treat social problems within that dimension, and to look into possible psychological and biological dimensions to determine the times when those areas need to be addressed.
  The implications of this is to reiterate and expand our knowledge on psychological and social issues, but just as important to familiarise ourselves with biological dimensions, diagnostic procedures and medical intervention,

which is seldom specifically addressed by social workers. If there is to be an increase in interest and use of alternative and complementary services in South Africa, the researcher is of the opinion that it is important that health care social workers and other health care providers get a better understanding of these practices.

Improvement of health outcomes

- Sobel (2000) states that mind body medicine is new medicinal treatment that has been shown to improve health outcomes, speed-up post surgical recovery, reduce unnecessary procedures and decrease medical costs. He adds that patients feel less isolated and there is an overall improvement in patient satisfaction. It also has a great deal to offer in terms of relief of the symptoms of acute illnesses as well as relief from the side effects of treatment such as surgery, radiation, or chemotherapy in cancer.

- We can view mind body therapy as a form of self-help. Therefore teaching people appropriate tools and knowledge may be the cornerstones for building a solid foundation in this new art of self-help (Chopra 1990).

- In Chapter 6, stress and its physiological consequences were narrated. According to Collinge (1996), the greatest strengths of mind/body medicine are in stress-related conditions and chronic illnesses. Learning how to manage stress has the short-term benefits of giving people some sense of control in their lives, providing them with positive coping strategies and making them more relaxed and healthier. The long-term benefits can be a stronger immune system, proper hormonal balance and reduced susceptibility to serious life-threatening diseases. All relaxation-based therapies to reduce stress are virtually free of serious risk (Kiecolt – Glaser et al June 2002).

Schools

- Social workers in schools can get involved within this new framework of understanding health. The researcher feels that it would be beneficial to discuss holistic health issues with children right from school going age. It will assist if children are taught relaxation and other mind/body techniques that could be useful while dealing with stressful issues, which would translate into natural processes, as they age.
  Children can learn how to use breathing as their ally and how it can lead to calmness. It is the researcher's belief that much of schooling is about competing and rushing around all the time. She feels that it would be so useful to teach children to be 'human beings', instead of 'human doings'. Reiterating, when we are calm and manage to take a step back from our stresses and problems, additional dimensions emerge, many of which seem more responsible and useful.

Treatment Centres

- "Consistent with the recognised goal to improve the quality of life of patients with chronic medical disorders, the integration of group-based psychosocial interventions into standard care is strongly recommended. A psychosocial treatment approach that can effectively assist patients to self–manage their stress and emotional distress, and/or treat mood anxiety disorders commonly associated with chronic illness, would be highly valued in most treatment settings" (Bishop 2002:76).

- Integrative hospitals or clinic programs that provide allopathic and complementary/alternative services are another potential focus. This thesis has discussed how hospitals should be a place where people have a chance to relax and concentrate on healing. The researcher believes that social workers should be more visible in these environments, helping to make the experience for the patient a healing one.

- The researcher considered how our existing hospital and clinics could be used for helping patients in their healing process. Siegel (1988) states that the

word 'hospital' comes from Latin 'Guest', "but seldom is the institution truly hospitable." He proposes that when a person is in hospital, the staff members become (or should become) part of that persons family, for they see that patient more often and more intimately than anyone else. He says the staff should face that responsibility "by offering the kind of loving support that we expect the family to provide" (Siegel 1988: 17). He continues to add that "little attention is given to caring or healing, as opposed to only medicating" (ibid). Siegel often wonders why designers could not make the ceilings pretty as patients spend so much of their time staring at them. He expresses that care of patient should mean care FOR patient. If there is a luxury of having a television or radio in the room, he questions what music; creative, meditative, or humorous videos are available to help establish a healing environment? "What freedom is given to patients to maintain their identity?" (ibid).

These above points (with reference to treatment centres) are often debatable and difficult to achieve in the South African context. Many of the treatment centres in South Africa are understaffed, under budgeted and often struggle to even exist. But the researcher feels that although this is a problematic situation, it does not mean that special care of patients as described above should not be mentioned; and still believes that treatment centres should strive towards these goals mentioned for effective and even necessary health care.

Legislation

- Social workers can also support legislative lobbying to appropriately recognise complementary/ alternative providers, since many of these services and practitioners are not regulated through certification of licensure (Cook et al 2000).

  One reason for appropriate and recognised certification of complementary/ alternative services (especially in the private sector) is for third party payments (e.g. medical aid schemes) to recognise these services. Presently

payment for these services is limited or nonexistent. Health Care Social Workers can work with relevant policy makers, helping them to understand the benefits of supplementing payment for these types of services.

Accessibility of services

- Schlebusch (1998:42) raises the need in South Africa to seek ways to make such treatment more attractive and accessible to all patients who need it, "especially given the fact that such a large proportion of potential patients are from disadvantaged backgrounds because of earlier socio-political policies and other current factors."

  The researcher emailed Neil Orr and David Patient (mentioned in Chapter 6.3) and asked the following questions: "How does Behavioral Medicine and psychoneuroimmunology fit in the South Africa's health system context, where only a few advantaged people have access to good health care facilities? "How do we reach people that cannot afford private medical fees or comprehensive health care?"

  The following is the response the researcher's questions received from Neil Orr on the 18 November 2004:

  "The answer to your questions lies in one central structure: Facilitated support groups. For example, there is a huge focus upon support groups for those living with HIV, their family, etc. This applies to cancer as well and other chronic illnesses.

  Mind-Body methods and theory can – and are – being successfully integrated into support group processes, as 'therapy support group' components. For example, when a social worker (who runs a support group for women living with HIV) is trained in PNI (psychoneuroimmunology)/mind-body theory and methodology, s/he can then set aside support group sessions specifically focused upon, for example, dealing with fears, which is a chronic low-grade stressor. Not only do people focus upon fears, but also learn how to confront and defuse them, thus lowering stress hormone levels (e.g. cortisol), thus improving immune function. There are a range of such methods and interventions, mostly integrated into support group structures.

Almost every community NGO/agency that deals with people who do not have access to high level medical treatment, have some support group process going on. We have learned that such agencies find PNI-based processes of immense value in their support groups, as it provides a clear agenda and focus for the group, as an empowerment process. For example: A group is formed – post diagnosis, per referral from testing agency – and facilitated. The group is given the outline of the support group process, confidentiality, and time-line of the process (e.g. 12 weeks). Each session is focused upon either psychosocial issues and (e.g. mind-body) methods, nutrition, medical options, and problem-solving methods. Naturally, the standard 'sharing' process is included, but does not consume the entire session – usually a time-limit is set for this. At the end of the 12-week cycle, participants 'graduate' from the support group, and can be channelled into other structures. For many support group facilitators, this approach is far more effective than the standard approach, and also leads to higher percentage of returned group members, simply because they are receiving tangible methods to improve and cope with their condition."

In conclusion:

Cook et al (2002) states that to promote health care it is important to;

- Create an appropriate health policy;
- Facilities to render necessary services;
- Conduct extensive research;
- Implement training programmes; and
- Promote community health and development programmes.

Recent evidence that the health context of many people goes beyond the traditional allopathic paradigm and encompassing complementary/ alternative approaches is an important trend (Cook et al 2002), that should be better integrated into social work practice in the health setting.

The ideal health care delivery system incorporates the best of both complementary/alternative approaches and allopathic practice, in order to best meet the needs of clients and their families. Health Care Social Workers can help facilitate this alliance by assessing client use of complementary/alternative therapies, encouraging them to share this information with their health providers, educating allopathic health professional, as well as students about these services. Ultimately, the integration of complementary/ alternative therapies into conventional medical care will be affirmed through scientific research that demonstrates their efficacy. Health Care Social Workers can play an important role in legitimizing these treatment modalities by participating in the conduct of these important investigations (Cook et al 2000).

9.2 Challenges of this holistic paradigm

- A special empirical challenge is that the effectiveness of some complementary and/or alternative services cannot be easily demonstrated using traditional empirically validated research approach/methods. This is because some of these above modalities do not use standard procedures to treat illness, but instead represent a philosophical and conceptual approach to healing. Watson (1995 in Cook et al 2000:66) concludes that "objective phenomena of modern science whereby variables must be isolated, operationalised, observed and measured in order to be studied conflict with non-physical phenomena such as energy fields, consciousness, spirituality and processes such as transcendence, which are becoming more interesting to researchers."

  "Modern, conventional medicine follows the scientific high road and therefore subscribes to the viewpoint that only that which can be measured is real and meaningful" (Brom 1999:8). But in an article written by Brom (1999) he argues that this is not a helpful viewpoint, because it puts on the backburner almost all those qualities that are decidedly human, i.e. emotions, mind, spirit, consciousness, etc… There is also the implied suggestion that only that which falls within the window of science has any reality, and anything imagined or implied, but which cannot be measured, is not real. Scientists have drawn a clear line between the real world (that which science can measure) and the world that is somehow less real because it falls outside the window of science. Fisher states, "Objectivist science claims to discover facts that were used to bring them forth in the first instance" (Fisher 1991:26). However if we go back to our discussion on constructivism, we are reminded that there is no 'true reality out there'. We all construe our realities depending on our subjective experiences.

  Brom (1999:10) states that "the classical Newtonian reductionistic approach, when applied to human beings, has left us with a body made up of cells and devoid of spirit." He continues that "systems theory and energy medicine introduce us to flowing systems and the complexity of non linear and non

local dynamic and oscillating fields of activity" (ibid). This thesis has introduced and discussed these concepts in detail.

- In an article called 'Against Mind-Body Medicine' written by Vickers (1998), he discusses a few challenges that need to be kept in mind when working in this field.

  One challenge is the notion that a person may use mind/body techniques religiously, practice them perfectly with real commitment, and still not get the medical benefits they desire. He states that the degree of the contribution will vary from one person to the next, depending in part on the severity of the illness. He claims that when people do not understand these limitations and have unrealistic expectations, they are at risk of feelings of failure, self-blame, depression, or disappointment that may arise when such expected results are not forthcoming. "This is called the *psychosocial morbidity* of mind/body medicine. Patients and practitioners alike must endeavour to keep a realistic perspective on mind/body medicine, not overrating but also not underrating it" (Vickers 1998:112).

- Another error that Vickers (1998) feels could be made is when, rather than mind and body having equal weight, the mind is given primacy in determining health. When we say mind causes illness it is still dualistic and reductionistic and not holistic or systemic. This is where we need to retain cognisance of the recursive and interactional biopsychosocial model, which emphasizes the systemic approach to health.

- This brings us to a major point of controversy that often arises in this mind body healing tradition. It is the question of whether its use implies an assumption that ones illness must have been caused by the mind in the first place. For example, there are those who questions whether this approach should be applied to cancer because to use it might suggest that the people brought the cancer upon themselves. However, Collinge (1996) states that this is an unnecessary assumption since the mind/body connection can be exploited regardless of the cause of an illness.

Siegel (1988) defends this notion that the mind can cause illness, by saying that thought patterns don't CAUSE disease; they may increase the risk factor.

Chopra explains this controversy when he explains, "There are 2 centres of action within people, the head and heart. Medical statistics appeal to the head, but the heart keeps its own counsel. In recent years, alternative medicine has won much of its appeal on the basis of bringing back the heart, using love and care to heal" (Chopra 1990: 148). However, he says, "…that a drawback of bringing the heart back is it can seem that it punishes people for emotions. This is not helpful" (ibid). He exclaims that it is a sore point in the era of mind body medicine that people think they are doing it to themselves, i.e. 'purposefully' causing their own illnesses. He makes a very important statement, that from his perspective, we do not cause our disease…, but we "participate in it" (Chopra 1990:192).

Siegel (1988:111) also emphasizes this and states that the "realization of ones participation and responsibility is DIFFERENT to guilt and blame."

Kabat-Zinn (1990) concurs that even if there is a statistically important relationship between negative emotions and cancer, to suggest to a person with cancer that his/her disease was caused by psychological stress, unresolved conflict, or unexpressed emotions would be totally unjustifiable. He says it amounts to subtly, or not so subtly, blaming the person for his/her disease. He thinks that sometimes people do this unwittingly; perhaps in an attempt to rationalize a painful reality and to cope with it better themselves. He states that sometimes when we come up with an explanation for something, it makes us feel a little better because we can reassure ourselves, however wrongly, that we understand why that person 'got' sick. However, he insists that doing this amounts to violation of the other person's psychic integrity, based on ignorance and surmise. He adds that it robs people of the present, by directing their attention to the past when they most need to focus their energies and face the reality of having a life-threatening disease. He says that it is unfortunate that this kind of thinking, which seeks to attribute a subtle psychological deficiency as the 'cause' of the cancer, has become

fashionable in certain circles. He continues that this attitude is far more likely to result in increase suffering that healing. "From everything we know about emotions and health, acceptance and forgiveness are what we need to cultivate to enhance healing, not self-condemnation and self blame" (Kabat-Zinn 1990: 209).

Kabat-Zinn feels that sometimes it is helpful to explore insight into emotional factors that have been important to a person's illness. He states that it depends on how the subject is approached. In his opinion, for some people it is empowering to become aware of these issues and can enhance recovery. He affirms that if this domain is to be explored, it needs to be undertaken with great compassion and caring, whether by the person or with help of doctor or therapist. He insists that "inquiry into possible factors that might have contributed to ones illness can only help if they come out of non-judging, out of generosity and compassion and acceptance of oneself and ones past, not out of condemnation" (Kabat-Zinn 1990:210).

In summary, this chapter has discussed in detail the implications of the mind-body approach to holistic health care. It begins by looking at how constructivism and second order realities assists in providing an understanding of how peoples beliefs and philosophical stances can be linked to the self. It discusses how social workers can work on this level with shifts in perspectives. It discusses how complementary and alternative perspectives can help to expand the way we think and the options in the way we can work in a systemic health care system. It discusses the therapeutic implications that the biopsychosocial model has for social workers on a practical, as well as a theoretical level. There are suggestions about expanding professional education. It explains how mind body approaches can overall improve accessibility of services, treatment centres and health outcomes. This chapter also describes how social workers could be involved on a macro level by promoting legislation in support of these services, as well as a micro level by entering schools and starting to expose children to the concepts and ideas of a holistic healthy way of life.

This chapter also discussed the challenges that mind body medicine has had. It explains how we need to take cognisance of potential downfalls and take note of some controversial points. It provides some suggestions when working in this field, for example, our sensitivity to people's illness and understanding that they are not to blame for their illness.

- And finally, a thought for the social workers/caretakers themselves;

  Miller (1997:2) asserts, "My own health and wholeness is necessary if I am to successfully bring the miracle of healing to others. I bring all that I am to the healing relationship – my general health, my state of mind, and the beliefs and images I entertain concerning myself, my patient, and the nature of my role in this person's life."

  Pattinati (2001: 55) says that we must remember however, that "…we cannot give from an empty cup. We must renew and restore ourselves to be present to the other in a healing relationship. Caregivers must be caretakers; they must attend to their own growth in wholeness even as they minister to others." She adds that then it is "…a relationship of dignity and integrity for both participants" (ibid).

CHAPTER 10

CONCLUSION

A primary intention of this document is to actualize the concept of a recursive and bidirectional relationship between the mind and body in physical and mental wellbeing.

The researcher has augmented cognisance of the mind/body relationship. In doing so, it has become apparent that the body possesses an innate healing potential, which lends itself to the enhanced holistic patient/client and healer/therapist relationship.

In order to assert the objectives of this thesis, the researcher performed an in-depth literature review, which covered a variety of concepts and theories including Behavioural Medicine, the biopsychosocial model and psychoneuroimmunology. This comprehensively exposed the mind body connection and utilising the concept of stress as an example. The thesis demonstrates practical examples, within the models, which effectively endorse the postulations.

In order to encapsulate the thesis theoretically, the researcher further cited a philosophical foundation known as constructivism to complete the academic rhetoric.

Levering on the International Federation of Social Workers' (2000) definition of social work, the researcher demonstrates how well the holistic paradigm conceptualised in this document fulfils this definition.

It seems that our world is speeding up, becoming increasingly complex and crowded. Kabat-Zinn discusses the future in terms of computers, cellular phones, smart televisions and personal robots. He exclaims that this access to information can make sure that we never sleep, and is all at our fingertips. He affirms that while this may be liberating in some ways, giving us more flexibility and freedom,

we also have to be on guard not to be sucked into a mode of living in which each of us is reduced to being walking information processors and entertainment consumers. He states that "the more complicated the world gets and the more intrusive it becomes on our own personal psychological space and privacy, the more important it will be to practice non-doing" (Kabat-Zinn 1990:418). He insists that we need meditative practices to protect our sanity and to develop a greater understanding of who we are, and to encounter the stressors of the 21st century.

In conclusion, Miller (1997:48) states, "True health is much like a beautifully written and performed symphony. It requires many instruments, each playing its correct part, at the right time, and in proper balance with the other instruments. You simply cannot draw a line around a part of the human body and exclude the other aspects of being human."

"In an integrated and evidence-based model of health, mental health (including emotions and thought patterns) emerges as a key determinant of overall health" (World Health Report 2001).

Whilst conceived within the auspices of the mental health care realm, the researcher implores all professionals to take cognisance of this 'new way of thinking', by integrating this philosophy into their daily work and lives.

Hence, this literature study provides an integrated approach to physical and mental health care that is of significance to all professionals working in both the physical and mental health care sectors.

There exists an apt adage:
If you always do what you've always done, you'll always get what you've always gotten.

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APPENDIX A

Carte Blanche interview with David Patient & Neil Orr

(http://www.carteblanche.co.za/Display/Display.asp?Id=2228)

A Patient Life

He is living proof that AIDS need not be a killer. David Patient celebrates his 20th anniversary of living with this disease. Carte Blanche visits him at his project in Mozambique where he teaches that a powerful mind is a person's strongest suit of armour.

Date : 04 May 2003
Producer : Nicola de Chaud
Presenter : Ruda Landman
Genre : Medical and Health, Social and Community

David Patient, 1995: "When I wake up in the morning and I notice that I'm breathing, it's a fabulous day. No matter what comes to me, it's a great day. And the same thing will happen tomorrow morning when I wake up – I'm breathing, right on man, let's get going, there's stuff to do."

We first met David Patient eight years ago. He was seen as an anomaly then – a man who had been living with HIV for 12 years and who showed no sign of getting ill.

David, 1995: "I had a tremendous instinct to survive. I had overcome numerous odds in my life that had put me into a survival frame of mind. Instead of looking at the probability of my dying, I started feeling the possibility of my living."

Eight years on, David has celebrated his 20th anniversary and he's still very much alive.

David: "I've always identified with the fact that HIV is a living organism and I believe that it has a right to exist the same way I do, and why can't we co-exist in

the same body? I said this on an interview with you eight years ago and people thought I was a complete lunatic. Eight years later I'm still sitting here."

What he told us then was that he put his longevity down to an uncommon dialogue.

David, 1995: "The dialogue was essentially 'You're HIV, I'm David. You're very powerful, you're very strong and you can kill me. What I ask you to be, Mr HIV, is to be very aware of the fact that I have the same power. I too am strong, I too can take you out. And let's face it – if I die, you die.' Now is it realistic or unrealistic? I don't know, but it seems to be working."

While most scientists and doctors dismissed his approach, one man took him seriously. Neil Orr, a research psychology student at the time, was looking at the correlation between attitude and the immune system. He found in David a living example of his theory that long-term survival rests on a mindset.

Neil Orr, 1995: "There's no common factor regarding drug use, exercise, diet, or any of those things. They've ruled out genetics, they've ruled out the strain of the virus. The only common factors are their personalities and their attitude, nothing else."

Today David and Neil share a powerful partnership. They live and work together and spend most of their time teaching others what they know about living with HIV.

Ruda: "What has it taught you? What is the central lesson?"

David: "Hope. When people took away hope from me, it was the darkest, darkest place I'd ever been - when people said, 'You're going to die, you're never going to survive this'. And one of the things that I try to impart to people and maybe even teach them if I can, using myself as a model, is to never give up hope. Sometimes it's the only thing we've got left."

For David, hope comes along with having a clear picture of tomorrow. Three years ago he and Neil bought a piece of land just outside Nelspruit. They see this farm as a symbolic bridge to the future.

David: "I love trees, I love green stuff and one of the first things I did when I was diagnosed, was I planted a whole bunch of trees and I was determined to see them grow. Well, when we first moved onto this farm we planted a whole bunch of trees and this year we're starting to get our first crop."

Both David and Neil believe it is the first of many crops to come.

Neil: "There have always been people who have got through, and he [David] typifies that kind of person. He's difficult, he's tenacious, unconventional and he's got excellent instinct … survival instinct."

While his instinct may have kept the onset of Aids at bay, HIV is still a fluctuating presence in his body.

David: "When you interviewed me last time, my CD4 count was at about a thousand. I'm sitting at 800 now. In those days I had no viral load. My viral load is sitting at about 40 000 right now, which is incredibly low. If I continue on the path I'm on, probably in the next five to eight years I will have to look at antiretroviral therapy."

But for now he relies on a lifestyle that leans on a more natural approach to boosting the immune system.

David: "Knowing what the virus needs in order to keep it in check and knowing what my body needs in order to keep the virus in check. So all I've done is I've looked at all the natural stuff, with Neil as well – I mean he's largely the one that did the research on it – and as it turned out, a lot of things he has found in his research I have been doing all along."

David took what he knew from within and combined that with Neil's research and they put it into a shape in which they could teach a nation. They came to Mozambique, a country where resources are scarce, and hope is hard to find.

Mozambique is the sixth poorest nation in the world and in some parts of the country HIV is found in close on 25% of the population.

Neil: "It's about restoring a sense of ability to a situation where hopelessness is just all over the show.

David: "I think our byline says it all … which translates from Portuguese as 'If I can do it, so can you'."

David and Neil teach a programme called Vida Positiva - or Positive Life. They teach people how to deal with stress, how to confront their fears and how to take responsibility for their health and happiness."

David: "We teach them practical 'how-tos' on helping yourself as an individual and/or a member of your family to live with HIV and not necessarily die from it."

They start by getting people in touch with their dreams.

Neil: "It's not about big dreams, it's about a future they want to move towards. Without that we're wasting our time."

When David and Neil drove into Mozambique 10 months ago, morale among people working with HIV/Aids had reached an all-time low.

Aids worker Nyleti Mondlane saw limited resources in Mozambique straining against overwhelming need.

Nyleti Mondlane: "I think we got into a sort of reaching of despair – 'Well you know, what's the point of spending all this money on people who are dying anyway?'"

Until, says Nyleti, David stated his case.
Nyleti: "Then he will say, 'Oh, I've been living with HIV for 20 years and here I am, and I'm ready to roll out a programme'."

Nyleti is the national coordinator for the programme, which has the full support of the Mozambican government and is funded by international donors. David says that Vida Positiva in Mozambique has been shaped by the needs of the people it serves.

David: "All those years of training and understanding throw out the window, they mean nothing here. When a person is standing in front of you and they're starving to death, what have you got to do first? You've got to feed that person. You've got to teach them how to feed themselves. Once you've got a full tummy, then I've got your attention.

In a dusty suburb of Maputo we met Isabel Buque, a woman who has taken the ideas of Vida Positiva and integrated them into her thinking.

Isabel Buque: "I have a dream to build a big house on this land."

To build her dream, she began with the basics. She has planted a garden specifically geared to boosting her immune system. Nutritional know-how is one of the cornerstones of the training.

Neil: "Basic stuff, like garlic for bacterial infections, papaya leaves for absorption, aloes for selenium – things that people can get, that they are surrounded with, but didn't realise they could actually use."

Isabel: "Before Vida Positiva I felt my life was limited. But now, even if I did have the virus, I know that with what I produce here I can live for a long time."

David: "Initially we were accused of producing false hope, but the reality of the situation is people now have tools they can actually utilise. They can do something

right now."

The alternative, says David, is to die waiting for antiretroviral drugs to come to Mozambique.

David: "And what a lot of people think is it's an either-or – either Positive Living, Vida Positiva, or alternatively, the drugs. And it's not. It's a matter of before you need the drugs, why don't you do a whole bunch of stuff to maintain your health?"

They take a direct no-nonsense approach. You're either with them or you're out. Trainees are invited to learn on condition that they pass the information on to at least six other people.

Neil: "We were not interested in people that were not willing to deliver. You come, you're going to deliver. You're also going to replicate everything you learn, otherwise you're off the training. And the minute people went into that, it just exploded.

It works something like a pyramid scheme. An original 40 delegates turned into 460, and they have now trained more than 3 000 people. David and Neil hope to reach one percent of the population at the end of the programme.

Ruda: "Why is it happening in Mozambique and not South Africa?"

Neil: "It's quite simple."

David: "Bad leadership. That's why Neil and I pulled out of South Africa. I don't see the point. I'm not going to sit there and beat my head against a wall and go to yet another conference or another workshop or another meeting, and all we do is leave with gobs of paper and at the end of the day what can we do with it?"
They also believe South Africa is losing the Aids battle because the population has adopted a victim mindset.
Neil: "From my experience they're expecting government to save them."

David: "Fix everything."

Neil: "And that's got to stop."

David: "In South Africa there's this handout mindset, 'You owe me', you know, and everyone's got their hand out waiting for something. The only time a person holds their hand out here is to give it a shake."

Isabel has handed her skills on to many more than her agreed six. She taught her neighbour Florentina Nhantumbo how to make use of medicinal plants. She works with a women's organisation outside Maputo that cares for orphans of HIV/Aids. They have mobilised their community around the ideas of living positively.

Neil: "I take great pride in the fact that it actually works, and that's the most extraordinary feeling to actually go into a deep rural area and there you see the people and they're growing the food, and they're actually eating, and talking to each other, and people are living because of this."

David: "We've touched a lot of people's lives, and a lot of people have touched our lives. I get very emotional when I think about it, but it has been the most powerful experience. I thought Aids was powerful for me. Absolutely not. Working with these people, who have got absolutely nothing, Ruda, and that they're capable of saying, 'I don't know how, but I'm willing to try, please show me how' … I mean I get so choked up when I think about it. And then I've got these arrogant people across the border – 'We need this committee and we need this amount of funding and we need this'. It's like, 'No, actually you don't. What you need is determination. You need the will to get involved. That's what you need'."

APPENDIX B

Variations and techniques of Mind/body medicine

Source: William Collinge .1996. Excerpted from *The American Holistic Health Associations Complete Guide to Alternative Medicine*, Warner Books :http://www.healthy.net/collinge.

Mind/Body Medicine: The Dance of Soma and Psyche

Variations: The Many Contexts of Mind/Body Medicine

This field is uniquely cross-disciplinary, which accounts for its wide availability, helping make it the most commonly used form of alternative healing.

Its variety of techniques may be used by medical doctors, nurses, physician's assistants, naturopaths, osteopaths, practitioners of Chinese medicine and Ayurveda, body workers, homeopaths, and chiropractors. Other human service providers such as psychologists, clinical social workers, marriage and family counsellors, ministers, and hypnotherapies also use these tools. In addition, of course there are very specialized applications for midwives, physical therapists, exercise physiologists, respiratory therapists, and others.

Mind/body approaches are generally taught either in office practice via private consultation with a health care provider or in group programs. Hospitals and other institutions offer various kinds of support groups or group therapy programs for people with cancer, heart disease, organ transplantation, and other conditions. Almost all such programs incorporate some use of mind/body techniques, such as relaxation exercises or imagery.

These methods are often taught to patients preparing to undergo surgery or other difficult treatments. Research has found such preparation to speed healing, reduce bleeding and complications, and result in earlier discharge from the hospital.

Procedures and Techniques

The repertoire of mind/body medicine includes all psychological strategies that directly influence physiological states. Following are the most commonly used methods.

Meditation

There are hundreds of varieties of meditation. The most basic approach for facilitating the relaxation response is that described by Herbert Benson. The process should take place in a quiet environment, a setting where one can be quiet, undisturbed, and in a comfortable position for at least fifteen to twenty minutes. Given this setting, there are only two essential steps: the silent repetition of a word, sound, phrase, or prayer and the passive return back to the repetition whenever other thoughts intrude.

Variations on these instructions are at the core of many forms of meditation from diverse spiritual traditions. The simplicity of these instructions, however, makes the approach available to virtually anyone, regardless of their spiritual or religious beliefs. This is because the person can use as their repetitive focus a prayer or any other words that reinforce their beliefs (e.g. "God is love"), thereby adding a further dimension of comfort to the experience.

Mindfulness

This is actually another approach to meditation, which involves the ability to focus completely on only one thing at a time. In other words, in mindfulness the mind is full of whatever is happening right now. This can include walking, cooking, sweeping the floor, dancing, watching a bird, hearing the sound of a river, or any other focus you may choose. Whenever thoughts intrude, you simply return your attention back to the focus. This is a traditional Buddhist approach and has been widely popularized by Jon Kabat-Zinn, Ph.D., in the Stress Reduction Clinic, University of Massachusetts Medical Center, Worcester.

Progressive Relaxation

This is another common approach to eliciting the relaxation response. In this technique, the body itself is used as the focus of attention. It may be done either lying down or sitting. They technique involves progressing through the body one muscle group at a time, beginning with the feet, moving up the legs, and so on, spending approximately a minute in each area. For each muscle group, you hold or clench the muscles in the area for a count of ten and then release for a count of ten before moving on to the adjacent area.

The remaining techniques described below, while they also can lead to induction of the relaxation response, are also used for other purposes.

Mental Imagery

This involves using symbols to imagine that the changes you desire in your body are actually happening. For example, you might imagine that pain is melting away and dripping like a warm liquid out of your fingertips. Or you might develop an image of your immune cells actively subduing and preying on cancer cells or viruses, like birds of prey swooping down to engulf field mice in a meadow. This is a highly personalized technique and you would use images that are uniquely exciting and meaningful to you.

Studies of mental imagery have found that people can actually influence their immune functioning as well as significantly reduce pain and tension in the body with this method. But aside from the physiological benefits, which take some practice to achieve, there is also the knowledge that you are doing something to help yourself, channelling your energy into a healing activity. This in itself helps to improve emotional well-being and build a sense of self-efficacy or confidence, which research has found to improve immune functioning.

Autogenic Training

This approach involves using a combination of autosuggestion and imagery. Phrases are used to describe to oneself what changes in the body are desired as if they are happening now. For example, "My legs are warm and heavy." "All the muscles of my back are softening and melting." "I am calm." And "Warm; peaceful relaxation is flowing throughout my body." These phrases are repeated

while maintaining one's focus on those parts of the body being addressed. Whenever the mind wanders, the attention is gently and passively returned to the focus.

Breath Therapy

A variety of breathing exercises can help one to release tension, anxiety, and pain. They can be used in conjunction with imagery or autosuggestion. They can also be used to encourage fuller breathing in general and give the body a greater supply of energy, which it can use for healing. It takes energy to fuel the body's self-repair mechanisms including the immune system. Since we take a thousand breaths every hour, each breath is an opportunity to contribute to a healing process.

Some breathe therapy techniques use the breath in a calm, peaceful way to induce relaxation, to release pain, or to prepare for imagery. Another variety is Evocative Breath Therapy (EBT), which uses stronger breathing, sometimes accompanied by music, to stimulate emotions and emotional release.

Hypnosis

A simple description of hypnosis is offered by Karen Olness, M.D., of Case Western Reserve University who calls it "a form of self-induced, focused attention that can make it easier for you to relax or learn to control your body's functions" *[1]*.* It is this experience of extraordinary focus of attention that makes it possible to influence bodily states.

* Note that the numbers in brackets refer to the relevant references, detailed numerically in 'References for Appendix B and C '.

Biofeedback

Biofeedback uses special instruments attached to the body to give the person information about what is happening in the body. The instruments serve to amplify the signals that the person may not otherwise be able to detect so they can then use this visual or auditory feedback to learn to regulate certain bodily functions. Many people find this form of assistance very helpful for learning to relax.

The most commonly used form is *electromyographic* (EMG) biofeedback. An EMG sensor is attached to the skin and reveals the amount of electrical activity related to muscle tension in the area of the sensor. This is very useful in helping people learn to relax the muscles, for they have direct feedback—which may be visual readouts, lights, beeps, or tones—as to the degree of tension. This approach is often used for tension headaches and chronic pain conditions.

Other kinds of biofeedback include *thermal,* sensing the temperature of the skin as an indication of blood flow and relaxation; *electrodermal* (EDR), measuring subtle changes in amounts of perspiration; *finger pulse,* for measuring heart rate and force, useful for anxiety or cardiovascular symptoms; and monitoring *breathing patterns*—rate, volume, rhythm, and location (belly or chest) of each breath.

Biofeedback has many applications, such as headache and migraines, anxiety, chronic pain, teeth grinding and clenching, Raynaud's disease (vascular disorder causing cold hands and feet), incontinence, asthma, and muscle disorders (including helping people learn to reuse arms or legs that have been traumatized). Essentially any bodily process that can be measured can potentially be controlled or influenced through the help of these techniques.

APPENDIX C - Scientific support

Source: William Collinge .1996. Excerpted from *The American Holistic Health Associations Complete Guide to Alternative Medicine*, Warner Books: http://www.healthy.net/collinge.

There are four areas of research that support mind/body medicine:

- Studies describing the physiology of mind/body interactions,
- Those measuring the effects of mind/body therapy techniques,
- Research on the health outcomes of structured mind/ body programs employing a variety of techniques, and
- Studies of cost effectiveness.

Mind/Body Interactions

The Mind/Heart Connection. Scientists have pieced together how stress affects the heart. This work is well summarized by Cynthia Medich, Ph.D, R.N, a cardiovascular specialist and researcher at the Mind/Body Medical Institute, Harvard Medical School and New England Deaconess Hospital, Boston. What Medich describes as the mind/heart connection involves the release of two kinds of stress hormones into the bloodstream: corticosteroids and catecholamines.

These hormones set off a cascade of changes in the body including increased platelet aggregation (tendency for blood clotting); increased coronary artery tone; a surge in coronary artery pressure; increased blood pressure, glucose levels, and lipid levels; a more rapid and powerful heartbeat; and, paradoxically, a constriction in the coronary arteries. In short, the demands on the heart all increase *[2].*

With this understanding, it is easy to see how individuals who experience stress on a chronic basis are at greater risk for heart diseases. This connection was dramatically illustrated in a study of air traffic controllers, considered to be in a very stressful occupation, who were found to have *five times* the incidence of hypertension as a comparison group of second-class airmen *[3].*

Other research has been able to anticipate who will develop hypertension and heart disease. One study followed 1100 adults for twenty years. Those who had the highest levels of anxiety at the beginning of the study turned out to have the highest rates of hypertension two decades later *[4]*.

An eight-year study of over three thousand people found that those with the Type A behaviour pattern were twice as likely as Type Bs to develop coronary heart disease *[5]*.

Depression has also been found to affect the heart adversely. A study of patients with a history of heart disease found that those who were also depressed were eight times as likely to develop ventricular tachycardia as the patients who were not depressed. (Ventricular tachycardia is a condition of abnormal and potentially deadly heart rhythms) *[6]*.

A ten-year study was conducted to follow the mortality rates of people who had experienced stroke. Those who had been diagnosed with either major or minor depression were 3.4 times as likely to have died within the follow-up period. The death rate among depressed patients with few social contacts was especially high: over 90 percent had died *[7].*

In a study of 194 heart attack patients, those who reported lower amounts of emotional support in their lives were nearly three times as likely to die within six months as those with higher levels of emotional support *[8].*

The Mind and Immunity. In addition to affecting the heart, the chemistry of the stress response has been found to lower immune functioning. This is illustrated by studies of the effects of exam stress on medical students that have found significant drops in the activity of natural killer (NK) cells *[9]* as well as in the numbers *[10],[11]* of NK cells (NK cells are a key in fighting cancer cells and viruses) and a significantly lower percentage of T-helper cells in the blood *[12],[13]* (the cells that arouse the immune response to fight off an infection).

In a study of recently divorced people, those who wanted the divorce, for whom it brought relief, were found to have better immunity than those who did not want the divorce *[14].*

A study of the effects of stress on salivary immunoglobulin A (S-IgA, the antibody that fights infections in the mouth and throat) found that a higher frequency of daily hassles was significantly associated with lower levels of S-IgA. However, the effects were less severe in people who scored higher on a scale measuring sense of humour. This suggests that sense of humour can counter the negative effects of stress on the immune system *[15].*

Research has shown that depression can have an adverse effect on immunity. A study that took place in a mental hospital compared natural killer (NK) cell activity in depressed patients, schizophrenic patients, and staff members. The patients with major depressive disorder had significantly lower NK functioning than schizophrenic patients and staff members *[16].*

A study involved 132 college students to determine the effects of positive emotions on S-IgA levels. Half watched a morbid documentary about power struggles in World War II, while the other half watched an inspiring film about Mother Teresa, a Roman Catholic nun selflessly serving the poor and sick in Calcutta. The latter group had significantly increased S-IgA concentrations, indicating heightened immune responsiveness *[17].*

Mind/body researcher Lydia Temoshok, Ph.D., studied the psychological factors associated with malignant melanoma. Among her findings was the discovery that emotional expressiveness was directly related to the thickness of the patients' tumours as well as the course of their disease *[18], [19].*

Major findings of Temoshok's research include the following:

- Patients who were more emotionally expressive had thinner tumours and more slowly dividing cancer cells.
- The more emotionally expressive patients had a much higher number of lymphocytes (immune cells) invading the base of the tumour.
- Patients who were less emotionally expressive had thicker tumours and more rapidly dividing cancer cells.
- Patients who were less expressive had relatively fewer Lymphocytes invading the base of the tumour.

These findings helped contribute to the formation of the concept of Type C coping.

Can the immune system be trained to respond, like Pavlov's dog was trained to salivate at the sound of a bell? In a well-designed, controlled study, participants were given a sherbet sweet along with a subcutaneous injection of a chemical known to increase NK cell activity (epinephrine). After several administrations of this regime, the epinephrine was replaced by a useless saline injection. Remarkably, the participants still increased their NK cell activity in response to eating the sherbet accompanied only by the saline injection *[20].*

Techniques of Mind/Body Medicine

Some research on techniques has examined their effects on specific bodily functions such as immune responses, blood pressure, and heart rate. Other studies have looked at recovery from surgery, and still others have focused on psychological well-being and the quality of life.

Relaxation Training. This is by far the most widely studied subject in this tradition with hundreds of studies documenting its benefits. A few examples: Patients with ischemic heart disease who practiced the relaxation response daily for four weeks achieved significant reduction in the frequency of preventricular contractions *[21].*

Patients with hypertension who took an eight-week (once a week) training program achieved significantly lower blood pressure and the benefits were maintained three years later *[22].*

Patients receiving several kinds of elective surgery who were trained in relaxation had less surgical anxiety both before and after surgery. The intensity of their pain and their use of pain medication were both reduced *[23].*

Also, a study of patients receiving angioplasty procedures showed significantly less anxiety, pain, and need for medication *[24].* In patients receiving heart surgery, those who received the training had significantly lower incidence of postoperative supraventricular tachycardia *[25].*

A controlled study of women with premenstrual syndrome (PMS) using the relaxation response twice daily for three months found a 58-percent reduction in the severity of their symptoms *[26].*

Two studies found increased NK cell activity as a result of practicing the relaxation response. One, involving geriatric residents in nursing homes, also found indications of lower activity of herpes viruses. In addition, there were significant reductions in symptoms of emotional distress *[27]***.**

Finally, in a study of exam stress in medical students, the more they practiced the relaxation response, the higher the percentage of T-helper cells circulating in their blood *[28].*

Meditation. Of many various forms of meditation, TM has led the way in mind/body research. Over five hundred papers have been published in 108 scientific journals, authored by scientists at 211 research institutions and universities, in twenty-three countries worldwide. Studies of TM were instrumental in discovering the relaxation response and its benefits for hypertension. Other studies have found important benefits for such diverse populations as prison inmates, drug addicts, and Vietnam veterans suffering from posttraumatic stress disorders.

In one study, patients with hypertension who practiced TM twice daily for five to six months achieved significantly lower blood pressured *[29].* In another, the effects of TM were compared to those of progressive muscle relaxation and usual care in hypertension. For those using TM, the decreases in systolic and diastolic blood pressure were twice as great as those for the subjects in the other groups *[30].* As will be seen later, TM has also shown impressive effects in reducing the utilization rates of medical services.

Imagery. Imagery is often used in combination with relaxation and meditation. A controlled study of fifty-five women examined the effects of imagery and relaxation on breast milk production in mothers of infants in a neonatal intensive care unit. They received a twenty-minute audiotape of progressive relaxation followed by guided imagery of pleasant surroundings, milk flowing in the breasts, and the baby's warm skin against theirs. They produced more than twice as much milk as those receiving only routine care *[31].*

In another study, a group of metastasis cancer patients using daily imagery for a year achieved significant improvements in NK cell activity and several other measures of immune functioning *[32].*

At Michigan State University, researchers found that students could use guided imagery to improve the functioning of certain white cells called neutrophils, important immune cells in defence against bacterial and fungal infection. They could also decrease, but not increase, white cell counts. At one point in the study, a form of imagery intended to increase neutrophil count unexpectedly caused a drop instead. Subsequently, students were taught imagery explicitly intended to keep the neutrophil count steady, while increasing their effectiveness. Both of these goals were achieved *[33].*

Breath Therapy. A study examined the effect of evocative breath therapy (EBT) on salivary immunoglobulin A (S-IgA). EBT involves abdominal breathing accompanied by music and posthypnotic suggestion to promote emotional arousal and release. Forty-five adults in a group therapy program for cancer showed an average 46-percent increase in S-IgA levels after an hour-long EBT experience *[34]*.

Biofeedback. A controlled study of patients with irritable bowel syndrome found that biofeedback training brought a significant reduction in symptoms. This change was still present six months later *[35].* Another controlled study found a 41-percent reduction in migraine headaches in patients using a thermal biofeedback procedure at home *[36].*

Multistrategy Group Programs

Most organized mind/body therapy programs use a regimen of several techniques. Below are described some findings of such multistrategy programs for specific illnesses.

Hypertension. A group program for patients with hypertension included training in the relaxation response, nutrition, exercise, and stress management *[37].* Findings included significant reductions in blood pressure, cholesterol, triglycerides, weight, body fat percentage, and psychological symptoms. Importantly, most of the benefits were intact when the patients were checked three to five years later *[38].*

Surviving Heart Attacks. Patients recovering from myocardial infarction took a six-hour program of stress management training with mind/body techniques and emotional support. The result was a 50-percent reduction in subsequent rate of cardiac deaths *[39].*

Reversing Heart Disease. A controlled study at the Preventive Medicine Research Institute, University of California, San Francisco, examined the effects of a multistrategy program on people with severe coronary heart disease. Patients were randomly assigned to either a usual care group or the experimental program. The latter involved a regimen of dietary changes, exercise, yoga, and group support that included the practice of mind/body techniques. Those in the experimental program almost universally showed reductions in coronary artery blockage, while those with usual care generally showed more blockages *[40]*.

Benefits for Infertility. A ten-week group program for infertile women included training in the relaxation response with instructions for daily practice and training in stress management, exercise, nutrition, and group support. Results included decreases in anxiety, depression, and fatigue and increased vigour. In addition, 34-percent of the women became pregnant within six months of the program *[41]*.

Reducing Symptoms of AIDS. In a controlled study, patients received group training in biofeedback, guided imagery, and hypnosis. Results included significant decreases in fever, fatigue, pain, headache, nausea, and insomnia. Vigour and hardiness also significantly increased *[42].*

Another group program for HIV found significant improvement in emotional expression, sense of control over health, tension, anxiety, fatigue, depression, and total mood disturbance *[43].*

Psychological well-being in Cancer. Fifty-nine patients took a ten-day, sixty-hour group program that includes imagery, relaxation training, lifestyle evaluation, emotional release therapies, group support, breath therapy, and exploring the personal meaning of illness. Results included significant improvements in emotional expressiveness, fighting spirit, quality of life, sense of control over health, and optimism - including patients with metastatic disease. These improvements were still present three months after completing the program *[44].*

Psychological well-being and Immunity in Cancer*.* Sixty-six patients with malignant melanoma took a six-week structured group program that included health education, stress management, training in problem solving, and psychological support.

Six months after the program, there were significantly lower levels of psychological distress and higher levels of positive coping methods in comparison to patients who did not have the program. There were also significant increases in the percentage of NK cells and in their functional effectiveness (cytotoxic activity) *[45].*

Increasing Survival Time in Malignant Melanoma. The patients who participated in the above study were followed for six years. A startling difference in death rates between the two groups was found. Of those who were in the control group (no group therapy), thirteen of thirty-four had a recurrence of cancer during the six years and ten died. For those who had the group program, only seven of thirty-four had recurrences and only three died *[46].*

Increasing Survival Time in Breast Cancer. A ten-year controlled study was conducted with eighty-six women with metastatic breast cancer. Those who had a year of weekly group sessions had nearly double the survival time of those who did not have the group (averaging thirty-six months versus eighteen months). The group provided self-hypnosis and a form of therapy called "supportive-expressive therapy" *[47]*.

Cost-Effectiveness

Aside from the medical and psychological benefits, one of the most important contributions of mind/body medicine is in reducing the costs of health care by reducing the utilization rates of expensive inpatient and outpatient services.

Dr. Elizabeth Devine of the University of Wisconsin School of Nursing in Milwaukee conducted an analysis of 191 different scientific studies in which surgery patients were taught simple mind/body techniques. She found an average reduction in the length of hospital stay of 1.5 days (12 percent). This of course translates into enormous savings, considering the cost of a day of hospitalization. Results also included faster recovery from surgery, fewer complications, and reduced post surgical pains *[48]*.

Other studies have found reduced utilization rates for outpatient medical services. For example, in one study 109 chronic pain patients took a ten-session outpatient group mind/body program. A 36-percent reduction in total monthly clinic visits for pain management was found in the first year after the program *[49]*.

Another study looked at the medical care utilization rates of two thousand regular practitioners of TM, comparing them with 600,000 other members of the same

insurance carrier. For children and young adults the reduction for inpatient services was 50 percent and for older adults it was 69 percent. The reductions for outpatient services were 47 percent for children, 55 percent for young adults, and 74 percent for older adults.

The same pool of TM practitioners were compared to five other health insurance pools, showing *55* percent fewer visits for benign or malignant tumours, 87 percent fewer visits for heart disease, 30 percent fewer visits for infectious diseases, 31 percent fewer visits for mental disorders, and 87 percent fewer visits for diseases of the nervous system *[50]*.

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APPENDIX D

A list of some of the more common therapies and techniques available for reducing stress:

Source: Bruno Leonard C. PhD. 2002. Gale Encyclopedia of Medicine. The Gale Group: http://www.healthatoz.com/healthatoz/Atoz/ency/stress_reduction.html

- ***Acupuncture***: Insertion of needles at certain spots under the skin for the purpose of attaining balance by either releasing blocked energy or draining off excess energy.
- ***Alexander technique***: Improving the alignment of head, neck, and back claims to achieve efficient posture and movement.
- ***Aromatherapy***: Massage with essential oils from flowers claims to affect mood and produce a sense of well-being.
- ***Art therapy***: Creating something allows free expression and results in feelings of achievement and mood change.
- ***Autogenic training therapy***: A form of deep meditation or self-hypnosis.
- ***Autosuggestion therapy***: A form of verbal therapy involving repetition of a positive idea.
- ***Ayurvedic medicine***: A complete system of daily living based on awareness of one's particular constitution.
- ***Behavioural therapy***: A variety of psychotherapies that are based on changing ourselves by retraining.
- ***Bach Flower Therapy***: Herbal remedies that are prepared from flowers acting energetically to soothe the mind and body.
- ***Bioenergetics***: A practice that encourages sudden release of tensions by crying or kicking.
- ***Biofeedback***: Monitoring rates of body functions and using data to influence and gain control over autonomic functions.
- ***Breathing for relaxation***: Stylized breathing technique to control and lower body functions.
- ***Counselling***: Work with a therapist trained in talking-based therapy.
- ***Dance movement therapy:*** Freedom of expression through movement.

- ***Feldenkrais method***: Slow, light movements alter habits and re-educate neuromuscular system.
- ***Flotation therapy***: Floating in a soundproof tank with no external stimulation.
- ***Guided imagery***: Creating a mental picture of what is desired. Also called Creative Imagery or Visualization.
- ***Herbal medicine***: Uses substances derived from plants as treatment instead of synthetic drugs.
- ***Homeopathy***: Uses minute doses of plant, animal, and mineral substances to stimulate the body's natural healing.
- ***Hydrotherapy***: Use of water internally and externally for healing purposes.
- ***Hypnotherapy***: Hypnosis in order to identify and release patterns that keep an individual from a personal balance point.
- ***Kinesiology***: Uses muscle testing to correct imbalances in the body's "energy system." Also called Touch for Health.
- ***Massage***: Use of touch and manipulation to soothe. Can also employ vigorous deep tissue manipulation.
- ***Meditation***: Deep, relaxed, receptive, and focused concentration on a single object, sound, or word.
- ***Music therapy***: Playing or listening to music to create an emotional reaction.
- ***Naturopathy***: A complete health care system that uses a variety of natural healing therapies.
- ***Psychotherapy***: A talking-based therapy with a mental health professional to get at the root of a conflict, modify behaviour and disruptive negative thought patterns.
- ***Reflexology***: Manipulation of zones of the feet that relate to the major organs, glands, and areas of the body.
- ***Rolfing***: Vigorous manipulation of the body's connective tissue to restore "balance."
- ***Shiatsu***: Traditional Japanese finger pressure massages therapy.
- ***Sound therapy***: Uses sound waves to slow the body's autonomic system.
- ***Tai Chi Chuan***: System of slow, continuous exercises based on rhythm and equilibrium.

- ***Yoga***: System of exercises that combines certain positions with deep breathing and meditation.

APPENDIX E

Quotes

"Many times it is more important to know what kind of patient has the disease than what kind of disease the patient has." – Sir William Osler

"The only real voyage of discovery consists not in seeking new landscape but in having new eyes." -Marcel Proust

"The physician should not treat the disease, but the patient who is suffering from it." – Maimonides (A.D.1110)

"The physician must place his emphasis on 'skills' rather than 'pills'." – J.Elkes, M.D.

"The poor physician treats the symptom, the good physician treats the disease, the excellent physician treats the patient." – Neurology professor, Johns Hopkins Medical School.

"There is nothing either good or bad, but thinking makes it so." – William Shakespeare

"All that we are is a result of what we have thought." – The Buddha

"If there is peace in the heart, there will be beauty in the character. If there is beauty in the character, there will be harmony in the home. If there is harmony in the home, there will be order in the nation. When there is order in the nation, there will be peace in the world." – Lao Tse

"You can only see what you have grown an eye to see." – Rachel Naomi Remen, M.D.

"Listen to what the experts say, but always rely on your own judgment." – Albert Einstein

"If you always do what you've always done, you'll always get what you've always gotten." – An old adage

"Unless we change our direction, we will end up where we are headed." – A Chinese sage

"Whether you think you can or you think you can't – you are right." – Henry Ford

"I am an old man and have known a great many troubles, most of which never happened." – Mark Twain

"The world is an illusion created by a conspiracy of the senses." – Roger Penrose

"Imagination is more important than knowledge." – Albert Einstein

"The curious paradox is that when I accept myself just as I am, then I can change." – Carl Rogers

"Life consists not in holding good cards, but in playing those we do hold well." – Josh Billings

"Home is neither here nor there. Home is within you or home is nowhere at all." – Herman Hesse

"You cannot teach a man anything. You can only help him find it within himself." – Galileo

APPENDIX F

GLOSSARY

1. Paradigm shift:
   "Paradigm shift is a change from one way of thinking to another. It's a revolution, a transformation, a sort of metamorphosis. It just does not happen, but rather it is driven by agents of change" (Thomas Kuhn 1962: http://www.taketheleap.com/define.html).

2. Alternative medicine:
   "Non-traditional remedies: the treatment of illness using remedies not considered part of mainstream medicine, for example homoeopathy or naturopathy. Also called complementary medicine" (Microsoft Encarta 2004).

3. Biomedical model:

   "The view that illness results from physical causes, such as infection or injury; psychosocial factors are not viewed as causal factors" (Sarafino 1998: 468).

4. Recursive:
   "One way of thinking about recursiveness is to imagine the mythical creature Ouroborous, the snake that eats its own tail. Each time the creature swallows itself, we can speak of the creature of a different order of recursion. It is unnecessary to imagine the beast getting larger (or smaller) with each episode of infolding, but it is important to realise that we can indicate a difference whenever the circle travels through itself. Speaking of recursion enables us to point to the same snake, while indicating the order of recycling. Speaking of orders of recursion provides an alternative way of using logical typing, in order to more fully encounter the nature of recursive process" (Keeney 1983:32).

5. Epistemology:
   "A branch of science combined with a branch of philosophy. As a science, epistemology is the study of how particular organisms or aggregate of organisms know, think and decide. As philosophy, epistemology is the study of the necessary limits and other characteristics of the processes of knowing, thinking, and deciding" (Bateson 1979:242).

6. Behavioural Medicine:
   "An interdisciplinary field introduced in the early 1970's to study the relationship between behaviour and health" (Sarafino 1998: 468).

7. Biopsychosocial model:
   "The view that health and illness involve the interplay of biological, psychological and social factors in people's lives" (Sarafino 1998: 468).

8. Psychoneuroimmunology:
   "A field of study focuses on relationships between psychosocial processes and nervous, endocrine and immune system functioning" (Sarafino 1998: 472).

9. CAT scan:
   "Medical X-ray scan: a diagnostic medical scan in which cross-sectional images of the body part are formed through computerized axial tomography and shown on a computer screen" (Microsoft Encarta 2004).

10. Psychosocial:
    "Relating to both the psychological and the social aspects of something, or relating to something that has both of these aspects" (Microsoft Encarta 2004).

11. Central nervous system:
    "That part of the nervous system consisting of the brain and spinal cord" (Sarafino 1998: 469).

12. NK Cells:

"Natural Killer Cells – specialised to kill certain types of target cells especially,

a. Host cells that have become infected with virus,
b. Host cells that have become cancerous (http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/N/NK-cells.html).

13. Mindfulness:

"A form of meditation originally developed in the Buddhist traditions of Asia. Simply put, mindfulness is a moment- to – moment awareness. It is cultivated by purposefully paying attention to things we ordinary never give a moment's thought to. It is a systemic approach to developing new kinds of control and wisdom in our lives, based on our inner capacity for relaxation, paying attention, awareness and insight" (Kabat-Zinn 1990:2).

14. Logical Typing:

"Bateson adopted logical typing as a descriptive tool for discerning the formal patterns of communication that underlie human experience and interaction… Logical typing can simply be regarded as a way of drawing distinctions… The use of logical typing in a descriptive manner leads us to a fuller awareness and appreciation or our patterns of knowing" (Keeney 1983:30).

15. Allopathy:

"Use of nonhomeopathic remedies: the treatment of a disease by using remedies whose effects differ from those produced by that disease. This is the principle of mainstream medical practice, as opposed to that of homeopathy" (Microsoft Encarta 2004).

16. Complementary medicine:

"Nonmainstream medical treatments: a range of therapies based on the holistic treatment of physical disorders, generally addressing the causes of diseases rather than their symptoms and also taking steps in the prevention of disease" (Microsoft Encarta 2004).

17. Ayurveda:

"Ayurveda is commonly classified as a system of medicine, but with equal justice you could call it a system for curing delusions, for stripping away the convincing quality of disease and letting a healthier reality take its place…The literal meaning is 'science of life' " (Chopra 1990 :189).

18. Conventional:

"Usual or established: using well-established methods or styles" (Microsoft Encarta 2004).