

Becoming Resilient - A workshop in stress management and building better coping resources

Forward

This course has been written in direct response to some work now for over ten years which I refer to as "Care of the Self", a title adopted after reading a book "Care of the Soul", by Thomas Moore. I modified the title because of the sometimes uneasy feeling people have whenever the word "soul" or "spirituality" is mentioned. However true happiness (not just pleasure) is probably ultimately the essence of one's spirituality, as indeed pain and sadness are. The course Care of the Self included much of what will be written by way of notes for this workshop, but I will spend time recording details and some of the finer points that in the past have only been part of my verbal presentation. That program was never fully scripted and the notes I gave in the main were additive to what I was presenting. This was especially true when I discussed the endocrine system, people would comment that the material presented wasn't in the notes and they suggested that they enjoyed the way in which the information was presented but they wanted to also read and reflect on it later. In these course notes I have done just that. In fact it's a course that if you learnt the following notes off by heart you could just about give the same treatment to the topic that I do.

That may all seem a little arrogant and self praising, but the reality is that of all the courses I have run, with the exception of an educative drug and alcohol course, this course has been presented the most. Again excluding some humility on my part this course has never received a negative or even average validation, from the well over a thousand people who have attended.

What I think has made the course so successful is that while it educates, it challenges, and it is interactive, without being intrusive. It ultimately confronts, but in a constructive way. It shows how changes can be made and how simple some of those changes can be. It accepts that stress is ubiquitous and the enemy of human beings is anxiety and of course it's many metaphors. Finally, in this course you will learn that ultimately we in fact do have a choice. That we have more control in our lives than we sometimes think, that perhaps anxiety is a transient emotion, not a permanent one. In this way, conditions such as depression, panic, the phobias, substance abuse, etc are to a large extent preventable. All adverse psychological states stem from anxiety, and as one Christian prayer pleads, "*Lord protect us from all anxiety...*"

Two books are useful accompaniments to this course "A Wish Before Dying", by myself and Control Theory, by Bill Glasser. So if you are reading this forward before you attend the course, these books might be good resources by way of background reading. On the other hand, after the course they are good books to reinforce what you have learnt.

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Table of Contents

Part 1

Module 1 The Micro leads to the Macro - an exploration of the physiology of stress.

Module 2 The impact of stress and strain on human psychophysiology

Module 3 The Matrix of stress

Module 4 Measuring stress and anxiety

Part 2

Module 1 Dealing with trauma and grief

Module 2 Managing conflict

Module 3 Developing resilience

Module 4 Developing optimism and a positive spirit

Module 1

The Macro to the Micro and back to The Macro

1.1 Why we stress – The Big Picture

The world is a complex, challenging and exciting place. For some though it is difficult, dangerous and fearful, full of threats. So how is it the one world can cause such a dichotomy of experience? For others it's somewhat a bit of each, ie. challenging yet dangerous, complex yet confusing and so on. Of course this course is written with my own culture and experience in mind. For some in the world, perhaps most, it's a savage place; full of pain and misery where ultimately so many people simply starve to death. Sir Bob Geldof says it's an obscenity that we live in a world of excess yet people still live in poverty. Likewise poverty and being poor need to be differentiated. For instance I have so much more material wealth than the locals I meet in Bali do, but despite being poor, they often have a more peaceful existence and at times I yearn for that.

Within my own community I believe its an obscenity that we build football stadiums, yet there are waiting lists in our hospitals; where an Australian soccer player in the UK is paid \$270k in just a week, yet we have over crowded schools. These are the strange anomalies in our country and they are at times difficult to deal with. At the time of writing this course an Australian is being tortured, receiving 50 lashes a day in Iran, because his wife stole something! Meanwhile the war machine pushes on and we live again at the brink of a war with Iraq and yet also a nuclear war with North Korea. I suppose in all of this for some there is despair and many find it difficult to make sense of it all. How do you keep optimistic, positive in all of this? I suppose while these world wide injustices, wars and global stresses are quite relevant to us and how we see the world, I think these have less impact than say compared to the more parochial issues, especially what happens in work, our home and family. I am not sure whether anyone has suffered psychological illness in Australia due to the poverty in India, or the war in Bosnia, even September 11th or for that matter Bali, unless of course they were directly involved.



I am sure we are all saddened by such terror, but ultimately what causes our angst are the more immediate and personal concerns that we experience and are probably limited to within our immediate family, or at most our community. Thus the loss of a house due to bankruptcy, the death of a spouse, a gaol term, or the loss of a child are much more likely to affect us. In fact, these can be the very issues that can bring us to breaking point, saying those so often heard words "I cannot take it any more". However not withstanding these

immediate, even if irregularly experienced episodes, I think the actual stress of living tends to come mostly from day to day issues. Perhaps the accumulation of stress, or as is often reported, the "drip on the rock", an action that slowly erodes our capacity to cope.

I would like for a moment to actually suggest a world picture that will perhaps bring to the fore what it is to live today in our immediate community, i.e., in Australia. This is in respect to the average Australian, (however you may define that), because it is the so-called "average" Australian, who will undoubtedly be in my audiences. So this course is written for those folk in my own community that need to become more resilient and who wish to learn to cope with this very complex and indeed challenging world.

If we accept we have been on the planet for 50,000 years (I accept that recent theory makes it about 100,000 years and I also understand the creationists position, so humour me!). Then if we accept the average life expectancy of a human being is at least 70 years from the biblical three score and ten. (Incidentally the average life expectancy of a Timorese man is 46 years). So dividing 50,000 years by 70 lifetimes your left with 700 or so life times strung together. Have you ever considered that in just four life times, or in fact not even in three, did white people settle this country? In fact two life times ago there were no cars, no aeroplanes, and no world wars. It is in fact only over the last life time or so that man has invented the aeroplane, put man on the moon, developed the motor car, the fax machine, television, the ozone problem, the green house effect - do you need me to go on? The problem of course is that we are still in much the same bodies of our ancestor's 100,000 years ago, and while there are some minor physical changes, our reaction to stress is characterised by the same patterns of behaviour. While I always thought almost everyone understood these fundamental mechanisms, I find that people don't, so I will speak more on that later.

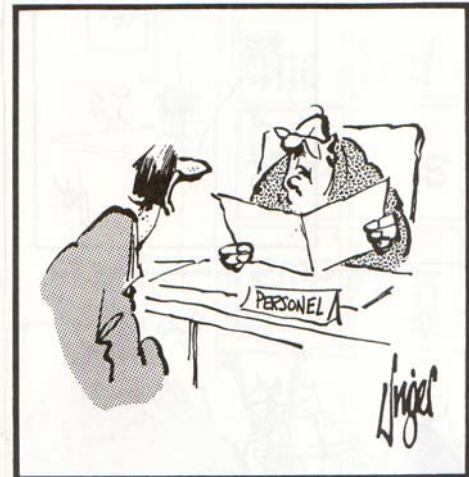
Given that we now experience physiologically the same stress as our ancestors, it's not hard to understand why we are having problems coping today. You see, it's over the last 70 years, and especially in the last 30 years, that human kind has experienced an enormity of technological change. Just think, it took nearly 100,000 years to invent the automobile, but look at the advances since then, not only in automobiles, but also in flight, by sea and most of all in communication. If you can not set your VHS machine to the stations, understand your mobile phone, deal with electronic banking, you are being left behind and thus the changes yet to come will be even more difficult to make.

1.2 Stress and a failure to adapt

If there is one issue that reflects stress, it's our failure to adapt to change. Stress caused by change is of course understandable. It was Abraham Maslow who said for instance that the basic needs of humans are "security, safety and order", and change often disrupts that completely. But did you know the Chinese symbol for change has two parts, each symbol alone has its own meaning. The first represents danger, the second hidden opportunities. I guess those that address change with fear and danger are much more likely to suffer the adverse effects of stress, ie. anxiety, more so than someone who relishes

the opportunities that change brings. How we interpret our world often comes down to our personalities and the environment in which we have grown. I will talk about this later in this module. This failure to adapt to change and be flexible, to accommodate the sometimes challenging world, is one cause of considerable stress. Hans Seyle regarded the GAS or General Adaptation Syndrome as being critical in all human existence. This adaptation is critical to us finding what he referred to as "homeostasis", or balance. Our bodies strive to maintain balance, thus when there is a stressful event, afterwards, our bodies try to regain that lost balance. This is an interesting point as the people I meet who suffer from anxiety, have somehow lost not just the physical balance in their lives, but also the psychological balance, the ability to relax, sleep, be happy, etc all critical for a balanced healthy human being. Further it is clear that stress followed by a period of balance, helps us to grow stronger (adverse events often being referred to as "growth experiences"). While chronic unabated stress causes us to be weaker and more vulnerable.

The three basic responses to challenge or danger are the fight, flight and freeze actions experienced whenever we are threatened. This is part of an innate biological template and in part cognitive, emotional response to our environment. It is incidentally that primitive biological response that caused our ancestors to fight ferocious animals, run away from them or play dead. In fact all species on the phylogenetic scale have such a response. I have sometimes said that in those primitive days it might have been a big brontosaurus that caused us to run, today it may be a "policosaurus" that can cause us to do the same thing. Have you ever wondered why a young man in an old car, even if hotted up, will run when a police officer in a high production motor vehicle, capable of twice the speed, attempts to pull him over. The young man is indeed simply acting out his biological template for survival, as generally weaker species run from stronger ones. Incidentally, this might be understandable but rarely a good defence in court.



"Your resume says you spent 'fore years at collej.'"

In this module from the Macro to the Micro and back to the Macro again, I want to start with the basic forces that drive us as human beings. Then see how we relate to the society we live in, that is, how we relate to others, and finally how society interacts with us. Obviously in a discussion about the morality of poverty, torture, and injustice, we are working by way of macro analysis. Yet, how we behave, why we behave the way we do and how we work is certainly critical in any attempt to understand not just the problem of stress and anxiety, but then how we can become more resilient. So from the Macro above to now the Micro as we turn our focus on the most important system in our body, the endocrine system. In the next section you will learn what this system is, how it works and the intimate relationship it has with stress and anxiety.



1.3 The Endocrine System

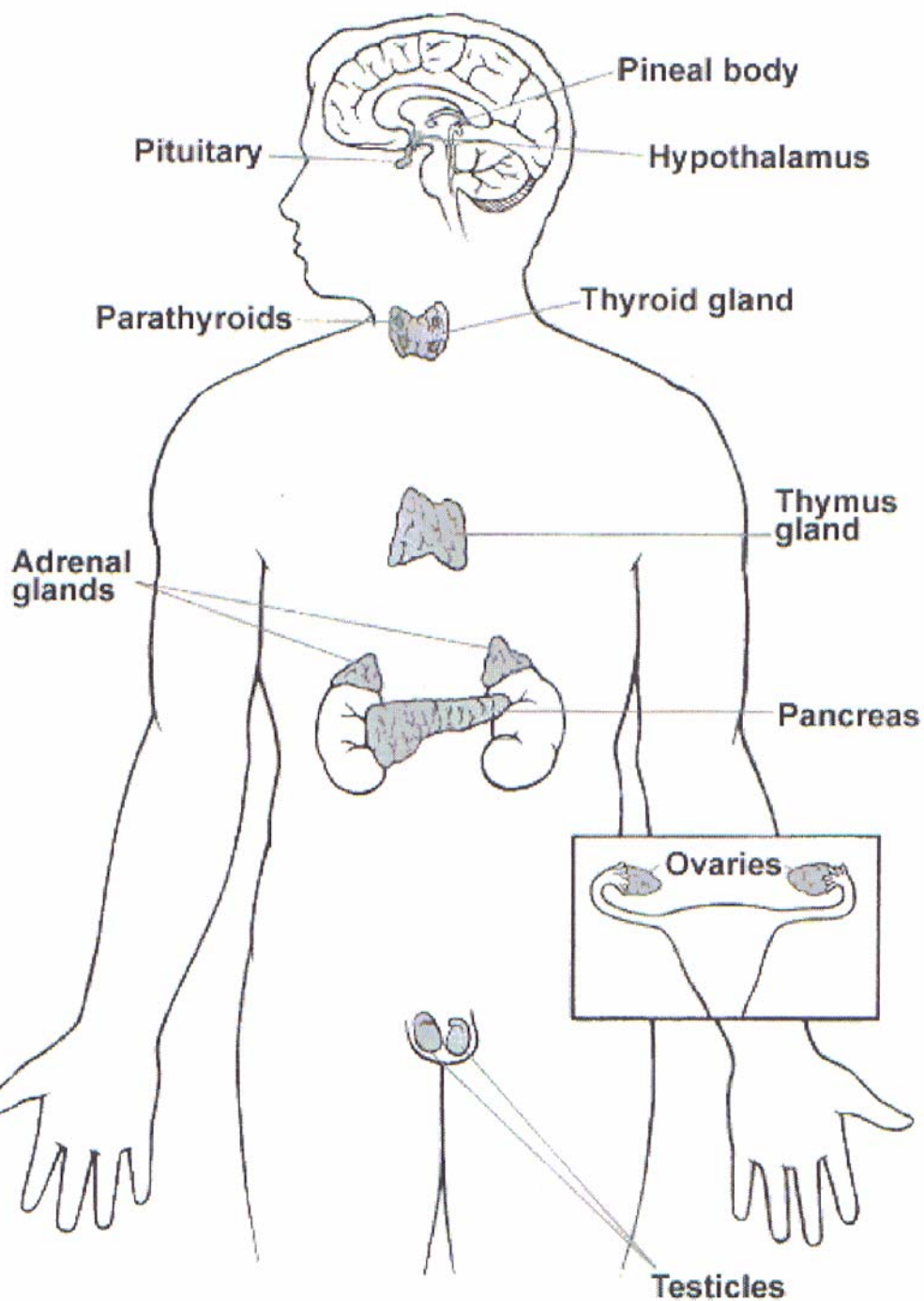
I am stunned when I find so many intelligent well-educated adults say they have never heard of the endocrine system. Yet it is singularly the most important system in our body, it is in fact the driving force that governs our emotions, our actions, our survival, stimulates our thoughts and in short our very being, without it there is no life. Having some knowledge about the endocrine system helps us better understand how and why we work the way we do. Knowledge is, as the adage goes, power, because if you know how something works you may be in a better position to take control of it. Later I will suggest that when we are chronically anxious, it might be that we have in fact been hijacked by our endocrine system. Simply put, at least by way of a microanalysis, getting rid of or dealing with anxiety is about taking back control of our endocrine system.

For those who have been to a hospital, you will find a department of endocrinology. The staff there are concerned with a system that is critical in how we function, for it is the endocrine system that is inextricably, both in terms of structure and function, tied to the central nervous system which in tandem dictate our behaviour. It is not my intention to give some technical and precise explanation, but I think that certain aspects of the endocrine system need to be essentially understood before we can comprehend why we behave how we do and indeed how we can change that behaviour. I think the first analogy I need to use is to sub divide the body system into two parts, the sympathetic system, which I will refer to as the accelerator, and the parasympathetic system which I will refer to as the brake. Do you remember earlier I mentioned "homeostasis", well these two systems between them attempt to regulate the way we function and behave? Thus crying, fainting and laughing are all stimulated by the central nervous system in conjunction with the endocrine responses. You may have guessed these activities are in the parasympathetic system, thus the "nervous laugh" or the comment, "I felt so much better after a good cry". We will pick up on this again later. However

as you will see as I describe some of the glands of the endocrine system and indeed some of the basic functions, each function fits into a “braking system” or an “accelerating system”.

The endocrine system is a collection of glands that produce hormones that regulate your body's growth, metabolism, sexual development and function. The hormones are released into the bloodstream and transported to tissues and organs throughout your body. The Table below, as well as the illustration over page describes the function of these glands.

Fig 1 The Endocrine System.



Explanation

Adrenal glands	Divided into 2 regions; secrete hormones that influence the body's metabolism, blood chemicals, and body characteristics, as well as influence the part of the nervous system that is involved in the response and defence against stress.
Hypothalamus	Activates and controls the part of the nervous system that controls involuntary body functions, the hormonal system, and many body functions, such as regulating sleep and stimulating appetite.
Ovaries and testicles	Secrete hormones that influence female and male characteristics, respectively.
Pancreas	Secretes a hormone (insulin) that controls the use of glucose by the body.
Parathyroid glands	Secrete a hormone that maintains the calcium level in the blood.
Pineal body	Involved with daily biological cycles.
Pituitary gland	Produces a number of different hormones that influence various other endocrine glands.
Thymus gland	Plays a role in the body's immune system.
Thyroid gland	Produces hormones that stimulate body heat production, bone growth, and the body's metabolism.

TABLE 1: THE FUNCTION OF THE GLANDS IN THE ENDOCRINE SYSTEM [Source: AMA's *Current Procedural Terminology, Revised 1998 Edition.*]

1.31 The Pineal Gland

I have said so many times in the past that the pineal gland is simply the most important gland of the endocrine system. Now I am able to take argument about this and I guess sometimes when I discuss the endocrine system I cause some purists to cringe, indeed I make it simple, perhaps too simple but probably more importantly I make it understandable. However it's a pretty big claim to say something is the most important, so what's the proof? This I think can be established by three facts, the anatomical place it occupies, the historical reference to it and thirdly the functions it is responsible for.

Our body is constructed superbly; everything we have that is important is well protected, think of the heart, protected by blood, flesh, cartilage and a rib cage. The kidney well protected, behind us, our brain especially "floats" in fluid and is well protected by a hard nut. By the way you fellows, the testes are quite exposed so maybe they aren't as important as some us men think! The pineal gland is likewise well protected, it is in fact in the centre of the brain, just about a pea size in diameter, it is therefore protected by the entire brain and in such a privileged site, one must only consider it is important. Historically two great thinkers Plato (400 years before Christ) believed that it was the seat of the soul and in fact Plato believed that all disease emanates from the soul. That observation was and continues to be of some considerable interest when the relationship between illness and psychological distress are discussed later in this workshop. Likewise Rene Descartes who said in Latin "I think therefore I am", regarded the pineal as the third eye, which was extremely accurate given the light sensitivity of the pineal.

As this is an overview, each of the points raised will be just briefly discussed. Probably the most compelling evidence in respect to the importance of the pineal stems from its function, I will reduce this to just three important and critical functions. Its role in sleep, through the production of melatonin a

hormone that ensures the onset of relaxation and sleep, its absence ensures our waking. Are you aware that research conducted in the 70s showed that when a control group of subjects were compared with an experimental group, there were differences in melatonin production, the difference, the control group did nothing the experimental group simply attending church. It makes you wonder if relaxation, which has been the catch cry of the 80s, 90s and now in the new millennium, why people are leaving churches in droves, just what have they substituted for church? Perhaps this is a confronting question for you, ie. What are you doing to relax each day? As indicated earlier and as it will be again several times during this workshop, you cannot be relaxed and stressed at the same time. Yes, the relaxation response is the natural antidote to stress and anxiety.

The pineal gland determines when babies are born, and when bears go into hibernation. If you haven't guessed, the pineal is an "alarm clock", not just waking us up in the morning, but checking against the seasons. Bears do not read calendars, yet they know exactly when it is time to hibernate? Its interesting that the pineal is light sensitive and one can only wonder how it might be related to "seasonal affective disorder" (SAD), anyway more of that another time.

Thus the pineal gland relaxes us, causes us to sleep, has a role in our immunity, childbirth, etc. Are you convinced of its importance yet? I cannot see how anyone can fail to see why it is simply the most important gland in the body. Incidentally if you are interested I wrote a review article on the use of melatonin some time ago and that is posted on my web site - www.heas.com.au. I think it's worth looking at, especially if you have trouble sleeping. I have in fact a short handout available that examines the safety issues and the use of melatonin, which has become prolific, firstly in respect to the treatment of jet lag, but also insomnia, (which is incidentally mostly related to psychological distress). Melatonin, not surpassingly is especially useful for workers that work shift work. Obviously I cannot spend in a day workshop a whole day on one gland, or for that matter, even the entire endocrine system. Having been enthused perhaps you will conduct your own research.

1.32 The Pituitary Gland

This is another well-protected gland and to me even more amazing than the pineal. Endocrinologists spend a lifetime just researching one facet; for instance it has many planes, e.g., anterior and posterior, both with quite different functions, but yet are integrated. For instance, it is the pituitary that stimulates endorphins and encephalin, which are morphine like substances that help us to overcome pain, and at other times give us a sense of pleasure. Perhaps the barrier or the "wall" experienced by distance runners is the cessation of endorphin and then they feel the enormous pain that prolonged strenuous exercise brings. If they can run through this so-called "wall", they get a second wind.

Because of the limited time we have, I want to discuss one particular function and that is the production of a peptide, a neurotransmitter called ACTH or acetylcholine. This is the vehicle by which we think, this is how the body responds to the need to activate thought. It might be of some interest to you to suggest that rather than the one brain you may think we have we in fact have four.

The first is the old brain, which is roughly the same size in respect to all animals on the phylogenetic scale, balanced for body weight. So a tiger of my weight has the same old brain weight. What it does is provide the basic wiring to ensure that our bodily functions keep going, breathing, eating or digestion, thirst, etc. Thus a person can be said to be brain dead, but still breathing, it is this brain that goes back millions of years that keeps those basic functions going. The left hemisphere is responsible for logical thinking and rationality, whereas the right hemisphere is responsible for emotion, creativity and it is the combination of the two, some times referred to as Lateral thinking that makes us so creative (see Edward DeBono).



In fact years ago in an effort to study epilepsy, the bundles of fibres that joined the two together (the corpus callosum) was cut. While this did not lead to a cure for epilepsy it allowed us to see the quite separate role of the hemispheres. If one eye was covered and the patient was given, say an orange, they could tell what it was but couldn't name it. If the other eye was covered they could name it without understanding what it was. That integration is essential for our complete ability to think. Have you never used the phrase "I am in two minds about it?" Of course you were, because you have competing information the logic from the left and the emotion from the right. What helps to integrate our decision-making is the fourth brain or the frontal lobe.

This is the executive command centre and it also contains our inhibiting behaviour that may stop us doing things that are foolish or inappropriate. Yes, you guessed it's the first part of the brain to be affected by alcohol. ACTH drives the information that spins through our head. In fact when we are stressed we often say we have a "thousand thoughts at once", indeed we do as we search for a solution for our problem, ACTH is driving that process. Its intimate role in the stress response will be discussed later.

1.33 The Hypothalamus, thyroid, testicles and ovaries.

Briefly I want to discuss these three glands. I mentioned earlier the "old brain"; this includes the hypothalamus and this has a role in our hunger, thirst and sexual function. I will return to this very shortly as we look at some of the features of stress that includes activating and at times suppressing these functions, over eating is a good example of self soothing, but more of that shortly.

The thyroid, located in our neck, is two glands that produce thyroxine that allows for the metabolic balance of the human body. Remember homeostasis mentioned earlier. The thyroid is a key player in all of this and as such is critical to our wellness.

The testes and the ovaries have a commonality in that they are both referred to as gonads. Intimately related to reproduction both are adversely affected by stress. How many people have adopted a child only to fall pregnant? How many depressed men no longer have a libido? All animals fail to reproduce as effectively in unsafe environments, little wonder fertility rates fall when stress eventuates in our life.

1.34 The Adrenal Gland

In concluding with the adrenal gland I am aware I have not totally covered the endocrine system, but you will at least know the essential features and functions of it. Like the pineal I want to spend a bit longer on this particular gland. You have two adrenal glands, one on top of each kidney. This gland comes in two parts, the outside, referred to as the medulla, and the inside called the cortex. From the cortex comes a hormone 17 hydroxy corticosteroid. The medulla produces, adrenaline and noradrenaline or epinephrine and norepinephrine as the North Americans referred to it (is it any wonder people get confused, least of not which are students). Now there is a fascinating circumstance in respect to 17 hydroxy corticosteroid or in shorthand cortisol. In its daily production it is critical for the conversion of glucose into glycogen – yes, you guessed it, an energy source. Now cortisone is an anti inflammatory, so you might guess that cortisol is an inflammatory and "burns" glucose, converting it to glycogen, giving us energy, especially used in aerobic activity. Now this is where it gets interesting, because when we are distressed we actually produce more cortisol and it is often utilised in research into distress as a measure or marker of anxiety. If you don't see it straight away I will understand, but can you understand the relationship between stress reduction via exercise? But more of that later!

I mentioned above the medulla and its production of adrenaline, which I am sure you have head of, the other is noradrenaline, which I doubt you would be familiar with. While adrenaline is associated with fear, yet a more positive way of describing it as I do with sports people, referring to it as the "fire in the belly". Noradrenaline on the other hand produces a sense of pleasure. Incidentally remember homeostasis, that is the balance we strive for, previously I used the analogy where adrenaline may be considered the "accelerator" and noradrenaline on the other hand the "brake". However a perfect balance of the two produces the optimal response. Let me show you how that works on the following graph.

As you can see hysteria produces poor performance, as does coma. Yet it is important to remember that excessive stress may lead to distress. Stress is not equivalent to distress, in fact the father of stress research, Hans Selye, called one eustress or pleasure and the other distress or anxiety. It is often a

lack of motivation or eustress that leads to distress or anxiety. Anxiety is destructive not only to performance but also our immune system.

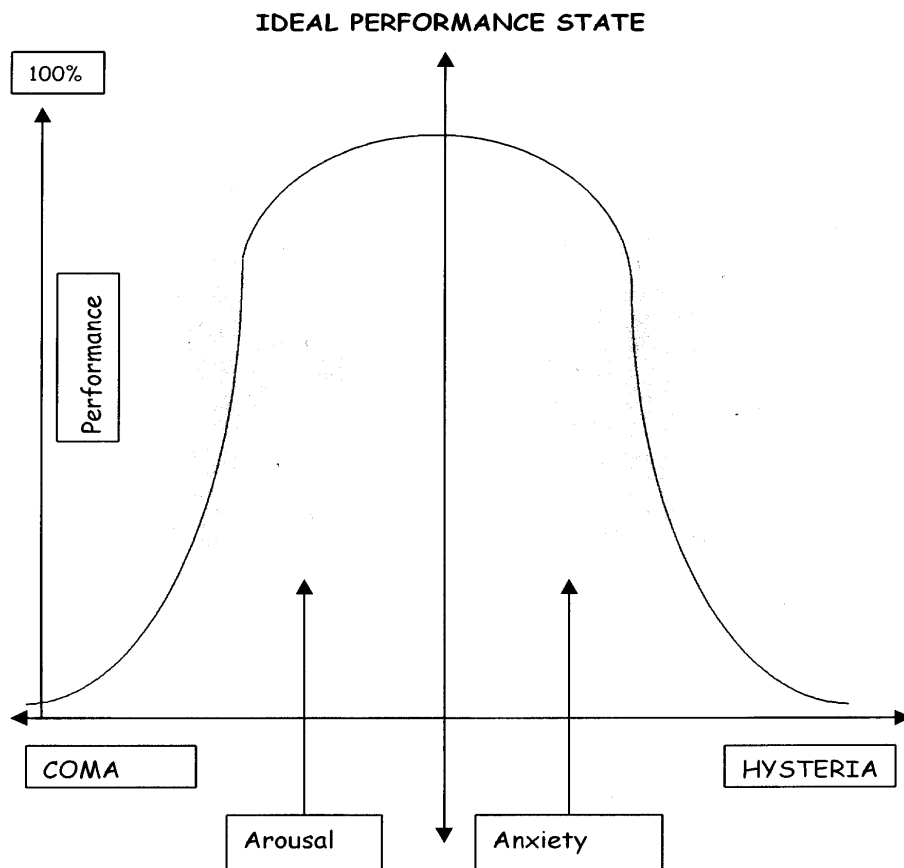


Figure 2 – The inverted ‘U’ relationship of performance

How does the influence of cortisol cause an adverse effect on our immune system? It would seem that high levels of cortisol decrease immune function and leaves us vulnerable to disease. You see it is not the so called “black bone” that kills natives, but their belief in the black bone, a belief or thought that creates anxiety and diminishes immune function leading to disease and thus death.

1.35 Putting it all together

When a person comes to see me and complains of stress I ask them what the symptoms are and they respond something like this. "I have no libido; I have an upset stomach; heart burn; blood pressure; my weights all over the place; I am eating too much; I am drinking too much; I have poor concentration and confusion of thought; lack of memory; I can not sleep or relax", etc. This is where the penny should drop, i.e., that each of these problems relate to a function of the endocrine system. Not only are they distressed, but often unwell and they often have psychosomatic illness and complaints that can be easily associated with a failed immune system. When your mother said, "Are you looking after yourself?" She looked into your eyes and saw all was not well, your eyes being a give away. You see when people have symptoms as above, they are revealing that in some way they have been hijacked by their endocrine system. It's the endocrine system, rather than purely cognitive processes have taken over and the person feels out of control. Simply put, getting control over the endocrine system will reduce distress and allow you to gain homeostasis or balance.

Notes



Module 2: Stress and Strain

So far we have discussed, albeit a brief overview, the physiological mechanism that is most intimately related to stress. We have also discussed the notion that stress as being any type of demand, is in itself neither good or bad. Although there are exceptions, death and tragic losses, such as the loss of a child always cause distress. Even then the depth or sense of loss varies and thus, the level of distress and emotional reactions vary considerably between people, but also between cultures and races. In a later module we will discuss the notion of grief and trauma and hopefully that will clarify just why we behave the way we do, and again how trauma is linked to mechanisms of survival. All of our behaviours are aimed at either maintaining balance (homeostasis) or simply survival. For instance laughing crying and even fainting are all good for us as they calm us down, they are initiated by the parasympathetic (braking) system.

However we have to move on and I want now to deal with two simple concepts, of stress and strain. Invariably from now on when I refer to stress I will be using it in the negative, i.e., distress. In a video, which I could recommend to you "A Passion for Living", by John Tickell, he says that there is no stress outside of us, but rather it is all in our perception and thus stress is internal to us. While the video is excellent, he is in fact using the term "stress" and "strain" as being synonymous, when they are not. Stress is in fact the demand made upon us and strain is in fact our ability to cope, or at least our resilience or resistance to stress. How we relate to stress is somewhat literally in the "eye of the beholder", but to suggest that there are no objective stressors is silly. In fact Holmes and Rahe, two social psychologists wrote of the top 30 stressors as far back as the 60's, with "Death of a Spouse", being #1. Unless you have some pathological hatred of your spouse, then clearly this is a universally accepted stress that is experienced by everyone.

How we deal with that depends on many factors, least of not which is the "strength of the person" to cope. For years I have been using the stress - strain model of physics, with all its faults, as a metaphor it remains an excellent vehicle to demonstrate this relationship.

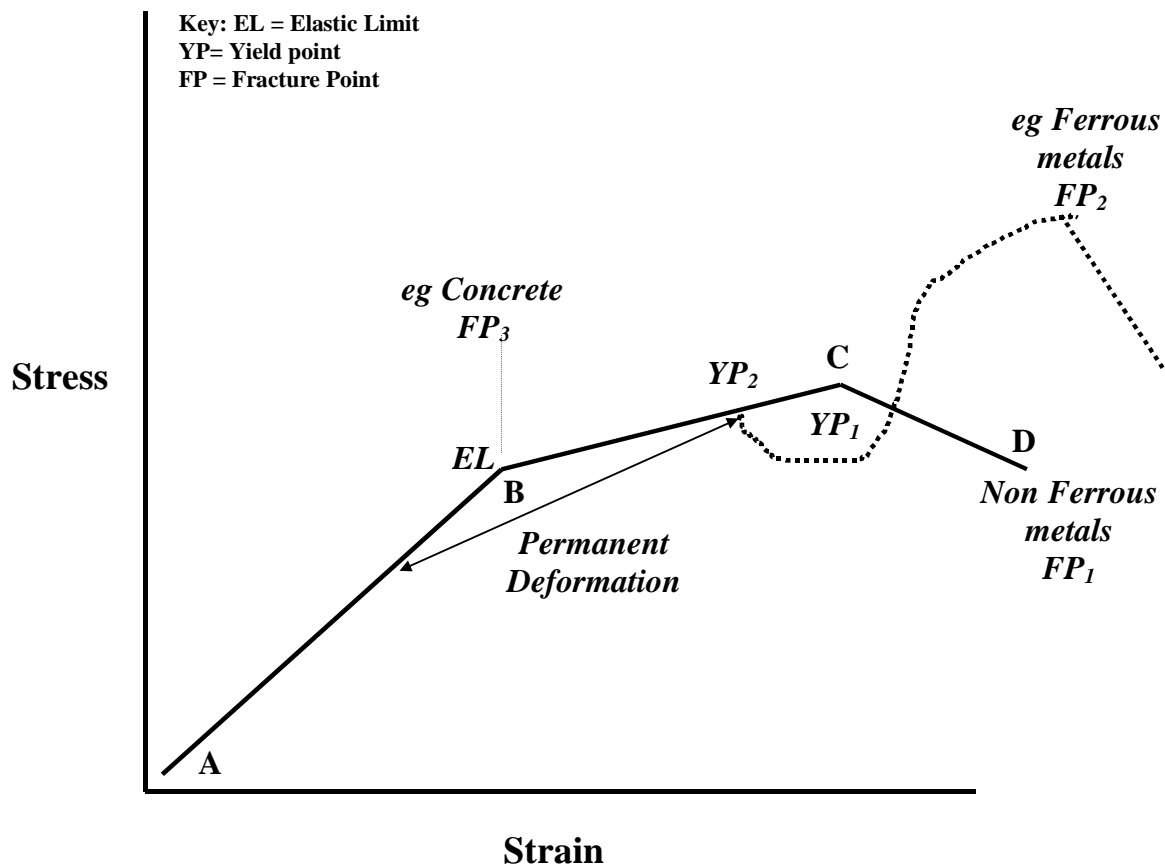


Figure 3 – The Stress-Strain Model of Physics

2.1 The Stress - Strain Model Explained

The stress strain model has some features that are ideally suited in order to compare our personal experience of stress. Let me suggest to you some of the features here, the first is the fact that all materials, depending on their composition, deal with the stress dependent on their robustness or resilience. Concrete unlike other materials doesn't bend but simply snaps, given the right amount of stress. On the other hand, ferrous metals for a short time get stronger under stress, while non-ferrous metals such as gold, simply bend, but all of them, irrespective of composition, eventually breaks.

Do you see the analogy with human beings? The metaphor is transparent; I want to now talk about composition as the primary factor. I am sure we all know "concrete" people, those who just snap. So too we know those that thrive on stress and seem to become stronger, while others simply follow the pattern of gold. Interestingly we use the word "precious" in respect of soft metal and so too people. We also have a saying "they were on their metal"; an interesting observation isn't it?

Differences in composition between we humans is an important factor and in part explains why some respond to the same stressor in quite different ways.

The two essential components that go to make up what is sometimes referred to as psychological "robustness" i.e., coping ability or resources and personality. I have discussed at some length personality in another module. Given a brief course such as this I am not likely to be able to help your personality, even if I could. But perhaps I could just make two points. The first is that clearly what we inherit by way of personality from our family is important in determining how we behave, just as importantly how we develop is likewise critical. The tension between which of these is more important, is sometimes referred to as the "nature-nurture debate".

The second point that I would want to make is that personalities are not usually bad, but rather it is how we use them. Obviously some personalities are more resilient to stress, where others naturally enough are more vulnerable. For instance, the self-assured extroverted type of person is liable to deal with change better than a dependent person with poor self-esteem. While self esteem can be part of a personality, self esteem is in fact part of the coping resources I referred to above that help us cope and is quite able to be improved upon. Again another example of this variance within the same personality, is when a person's personality that can be highly motivating, and enthusiastic, but can also be used in a way that is dominating and arrogant. Our personality can be used in an either creative or destructive way.

As I said earlier, because we cannot really change personalities, and certainly not in a day course such as this, I can at least deal with the second component, i.e., coping resources. This in fact will be extensively dealt with in the fifth module of the same name later in this course.

Ultimately the combination of the two (personality and coping resources) is critical to how we deal with stress and how much resilience we have to take up the strain. I now want to deal with what happens when we experience stress. It is common knowledge that if you want to build muscle, then you must tear it a little. In the same way, to build resilience it is important to be under stress for short, rather than long periods. In this way people become inoculated, making them stronger for difficult times. These are sometimes known as "growth experiences". Prolonged stress on the other hand invariably has a detrimental impact, not just physically, but emotionally as well with increases in catecholamine levels or especially cortisol, etc, all of which increases the wear and tear both physically and psychologically, and can ultimately lead to break down. Its said that when this happens, we start to bend and it's after that, with prolonged stress, that fracture point occurs. We could perhaps describe that as a "nervous breakdown". Given the regularity with which breakdowns occur in our community you would think we would get better in reading the warning signs, but we don't.

In the last module I suggested the warning signs are at first physical, but how often are they ignored? This simply causes the stress and strain to mount and the consequence is so often inevitable. Do we not say "they are on a path to self destruction?" Self-soothing techniques, including use of drugs and alcohol, may offset short-term effects, but ultimately only contribute to the

worsening of our emotional or psychophysical condition. Remember alcohol is the great mimicker of mental disorders! But more of that later.

2.2 Summary

I suppose, in any model like this, there are limitations but for the moment, let's summarise what has been so far discussed.

1. There are objective stressors, but how they are experienced varies. Negative experience creates strain on us.
2. Personality is important as to how we deal with strain, with some being innately more vulnerable to stress than others. Secondly, both inherited factors and environmental factors contribute to the development of personality.
3. That our coping resources, which vary over time contribute to our levels of resilience, but these can be worked on more readily than personality.
4. That small periods of stress, even distress are advantageous and help us grow and more importantly help us to become inoculated.
5. That when we do not cope, we start to bend under the weight of strain, unattended this can lead to breakdown.
6. The best approach to so-called stress inoculation is to train people to cope better, build resilience and be proactive against those periods when we "bend".

2.3 Stress - Strain and the Physical Systems

I now want to talk about the impact of stress and strain on our physical systems and how this can cause disease and illness. I mentioned earlier that like the athlete tearing a muscle, our psychological ability to grow is tied in with us experiencing conflict, resolving it and developing a sense of powerfulness. This then inoculates us to deal with further conflict in our life. Like the drip on the rock, the continuous 'wear and tear' of stress can cause an erosion of our ability, not just to cope, but deleteriously impacts on our physical systems. It seems fairly straight forward that if you run anything with the "pedal to the metal" it will wear out, sometimes you need to slow down, take a break and rest. Failure to recognise this causes our system to be taxed and break down. There are a number of essential ingredients if you are going to manage your stress and more generally manage your lives. Let's now examine the key predictors and most likely problematic systems when we suffer "stress".

2.4 Core Issues in Stress Management

2.41. Good sleep habits are essential

So many people fail to understand why we sleep 7-8 hours a night. It is important that we experience each night the five phases of sleep, including REM sleep when we process information through dreaming. Most dreams go unnoticed and while I would like to spend some time talking about interpretation, this is not possible within the context of this course. Yet Rapid Eye Movement Sleep, is critical and without we can suffer quite poor mental health. In fact some medications, but especially drugs and alcohol, can interrupt our sleep patterns and cause us to have less recuperative sleep. This can lead to depression. Now of course this is the rub, depression leads to poor interrupted sleep. In fact so called nocturnal awakening (waking up between 2-3 am is a symptom of depression). Then in turn poor sleep leads to lack of REM, which leads to a sleep debt and that can lead to depression. Have you already noted sleep hygiene as a priority? Some alternatives to improve sleep, include the use of meditation and relaxation training before and during the first moments in bed. Another is the use of melatonin (an executive review of this particular treatment can be found, www.heas.com.au).

2.42 Exercise is a Priority

I am more than aware that we have all heard so many times that exercise is good for us. However few of us really understand why. The facts are that exercise causes us to use cortisol, which is a marker for anxiety. Can you exercise stress away? Yes, but the sole answer to stress management is not as simple as that. Having exercised by running most of my professional life, I can attest to the fact that exercise is essential. I wrote my Phd dissertation running, I solved many problems running and I was most productive when I ran at a point of cardiac output when runners report being "high". The key is habit. The good thing about running or swimming as an exercise is that it can be done all the time on your own or with others. You need to time when you do this to fit it in, so that you can do it the same time every day. You need to give yourself rewards to reinforce the hard times when you may prefer not to. You also need to use rest days and above all do not be stupid enough to exercise with injuries. There are some wonderful magazines to keep you on the right track, "Runners World" is particularly good. In all, exercise keeps you well, it helps protect your heart from damage, it makes you feel good about yourself and it impacts on anxiety and is a key component to a full bodied stress management program.

2.43 Relaxation - Meditation, etc

I work with war veterans, many of whom have become more incapacitated by their injuries. After many years of running I too have had to face up to some orthopaedic injuries which make exercise like running, even swimming somewhat problematic. None of these injuries incidentally were caused by exercise, I have to face the facts that perhaps I will now have to be more

dependent on relaxation as a key to my successful stress management. There is a misunderstanding about just what relaxation is; in fact many people have had poor experiences in being introduced to this critical component of a healthy lifestyle. It is also interesting that so many people have ceased attending formalised religious services. Yet it was through these we encountered the first, and if used properly, effective relaxation techniques. People vary in their personalities and thus vary in what they find relaxing. Sitting on the floor for several hours reciting a mantra such as "Om", repetitively for others is simply dull and boring and thus, they are unlikely to make a commitment to it. For others the thought of even entering a church or temple would be unattractive. So in all of this how are you to find something that works for you? For without relaxation you can not apply the break and sometimes-passive relaxation that is provided by sleeping is not enough.

I try to find 30 mins a day at least to relax. For me that is through meditation which gains its impetus through my spiritual beliefs. Later in this module, in the section on coping resources, I will introduce spiritual beliefs as a pillar of good coping resources. Obviously if having and expressing a spiritual aspect of your life is not attractive then relaxation has to be more thematic, thus there are a range of disciplines you may attempt. (I use discipline, because like exercise the key is discipline and commitment). These exercises include but are not limited to physical relaxation such as systematic muscle relaxation, self hypnosis, yoga, tai chi (in the case of the later, millions of Chinese can not be wrong!). Someone once asked that its all well and good to exercise or relax for 30 mins (that is just 7 hours out of 168 - and you say you can not find the time!), but they add, you just go back to normal and stress immediately afterwards. That is in fact true probably in the longer term, but the affect on your body lasts some 2 hours afterwards and in the case of rigorous exercise, the positive effect lasts for a good part of the day. Do you see by exercising in the morning and relaxing at lunchtime, the beneficial affects may flow throughout the whole day.

2.44 You are what you eat!

I once returned to Scotland where I not only met my immediate relatives for the first time in my adult life, but also got a photo that included my great grandfather - who looked like me. What I noticed is that despite their totally different diet, (they were teetotallers) and despite the fact they didn't exercise, they had a similar morphology to me. On this point, I have always struggled with my weight during my adult life i.e., from 25 years on. Remember you grow for the first 25 years. My love of food, my morphology and some other factors all contribute to this. Does it sound like I am not taking full responsibility? I hope not because I constantly remind myself there were no fat Australians in Changi Prison Camp during WWII. They of course were not thin by choice, nor were they healthy, but I use this example to suggest a very simple fact. The more calories you eat than you expend get naturally



stored by the body, in anticipation of a famine. It has been many years since we have had a famine, so consequently the population as a whole is suffering from the various problems associated with weight, including of course diabetes, obesity etc. It is important to remember that weight alone is not a problem in itself, but rather the fat-lean ratio, then the fact we compound this fault with other faulty aspects of lifestyle, including lack of exercise, smoking, worry, drugs and alcohol.

So in all the plethora of diets and fads, how do I choose? The best and most balanced in my opinion and my colleagues, who are expert in this area, is the Weight Watchers diet. You do not have to buy specific Weight Watcher food, just start reading the labels. While I accept there are various diets for any number of conditions, I believe the Weight Watchers diet if taken on as a permanent lifestyle change is certainly the most balance and the one likely to shift excess weight. There are some principle ingredients to any good diet, these include:

- i) Five pieces of fruit a day
- ii) Limit alcohol intake to less than 6 standard drinks a day, 3 for women
- iii) Minimise fat to less than 50 grams a day
- iv) Unless you are doing rigorous exercise keep carbohydrates down
- v) Eat from the five food groups each day
- vi) Drink plenty of water, but don't drink to excess!

In our Lifestyle and Fitness program by Lee Clarke and Trent Watson, all of these principles of diet are expanded, along with the keys to sound exercise.

2.5 Goals

Later in this workshop I will introduce, the cognitive strategies for changing the way we think, so as to enhance our quality of life. For now I have just introduced four key aspects to successful stress management Sleep, Exercise, Relaxation and Diet. In another workshop we talk about time management and goal setting. In order to make a change it is important to set goals. As I say in that workshop, we don't lack motivation, we lack goals. So briefly here I will list the four principle components of goal setting: a) It must be specific, thus if you have a goal to lose weight - then how much?; b) It must be measurable - in this has also got to be specific. If for instance I want to lose weight, which is specific, success could be measured by 100grams, hardly success, thus it must be targeted; c) Goals must be accountable, - write them down, preferably have someone counter sign for it - it keeps you committed; d) They must be believable and achievable. Here I mean that it is pointless and unhealthy for me to try and be an endomorph - a skinny person, when clearly I am a mesomorph or big person. Now while I have concentrated on weight, do you see how these principles can be applied to any activity?

2.6 The Module in Review

1. What have I learned about Stress and Strain?



2. What have I learned about the impact on my body of stress and strain?



3. What strategies have I found useful? Which ones do I currently participate in?



4. Write four sound goals for specific changes in my life that will assist me combat stress.



Module 3: The Matrix of Stress

When I was asked in the mid 1980's to study bus driver stress I developed several models to understand this phenomenon. None of those was more interesting than that I labelled the "matrix of stress". In fact the studies ultimately showed that driving buses per se was not distressing. What we found, was that the fighting and lack of harmony at work was the principle cause. The second component was the impact of change and their resistance to it. Finally it wasn't an acute phase of stress, but rather the chronicity of it that caused the epidemic of bus driver workers compensation claims. So what has this got to do with this module written now some 20 years later? This will hopefully not just become abundantly clear but provide you with a template for assessing stress. Importantly the information from understanding this model can be applied to practical living skills.

Interestingly enough two researchers, myself being one and Kerry Borthwick, the other from Sydney Hospital, (working for opposite parties, ie. me the union, her the government), not only independently established similar results, but a similar view. This model or matrix stems from that period of my life. I have in fact used it ever since. I will simply include a diagram, mainly by way of providing a ready made template, one that you can use either to reduce stress in your lives or if malevolent increase the stress in others.

DEMAND	SUPPORT
CONTROL	CERTAINTY

Figure 4: The Matrix of Stress

Do you recall that in earlier modules I discussed the fact that what is stressful for one person is not for another. Parachuting or extreme sports are a good example. Some would be thrilled, while the same thing would terrify others. All aspects of our lives have this variance; even down to what we eat, as is often said, "What is one persons feast is another's poison". With distress however there are some actual common themes that are repeatedly shown to occur.

3.1 Demand

I am not certain but I am fairly sure there is a limit to how many balls can be juggled. I know a piece of paper cannot be folded more than 6 times. Whatever the situation, whatever the demand, we all have limits. Thus if you want to place someone under pressure you can increase the number of tasks given and then restrict the time frame for completion. Sometimes there is greater stress by putting success just out of reach. For instance, imagine the distress caused by missing out on one number in lotto compared to missing out on all six. How many times has this happened to you, when the

expectancy on your performance was unreasonable, even if it was only just out of your reach? When as a psychologist I complain that seeing six clients a day is too much, others, not normally in my profession, but often point out they work easily for 10 hours a day. Of course psychologists do more than just see people or clients, they write up notes, write letters, and other administrative tasks. However, to see clients face to face for more than 5 -6 hours a day is extremely difficult, or better stated, excessively demanding.

Thus for me, demand is when I am expected to squeeze just one more person in. All of us have had times like this, when we encounter the scenario where the straw could break us! This is where assertive training is important (see our communication workshop on being assertive). Assertiveness is the art of being fair and reasonable, even compromising, but not being brow beaten or threatened into something you don't wish to do. The second art in getting the demands on us under some control is to better time manage and the important use of time management (again see our course on goal setting and time management). While mentioning these courses may seem a blatant form of self advertisement, the fact is that in the time we for this course, we have can only introduce and recommend strategies to help.

When personal demands are put on us, especially in respect to family we must ask whether meeting that person's demand firstly falls into our sphere of responsibility, and secondly by meeting those demands we need to question whether we are helping them or are we stunting their growth? So often mothers over indulge their children at considerable sacrifice to themselves, but sadly also doing disservice to the child who would have learned much more readily if left to solve it themselves. I also learnt a long time ago that to try and fix everything places enormous demands and self-expectancy on me. Rather I have learned that to provide unconditional care, if genuine and appropriate, can make me successful every time.

Demands that are made on us can be reduced in impact by being assertive, prioritising, some sound time management and finding strategies to work-smarter, not harder.

3.2 Certainty

There is nothing certain in life but death and taxes or so the saying goes, a more recent comment is that the only thing certain is change. We indeed live in a world that is plagued with uncertainty, yet as humans we crave certainty. I have found that despite the uncertainty more generally there is in the world, there are nonetheless some things I can be certain of. The first of these is my family, their affection for me, most of my friends, and while they could be taken away or they could abandon me in other ways I remain certain that they are there for me. I recall when I served in the Army, in particularly gruelling circumstances, I was buoyed by the fact that back home, my house was being cared for, my family missed me and I was certain they looked forward to me coming home.

At work it seems that managers and administrators are almost expert in creating uncertainty. You can usually gauge this by the amount of rumour or gossip in an organisation. These rumours of uncertainty thrive when there is a lack of information or hard evidence. Thus I would say that if having certainty and security is important, then despite not being able to establish it in all areas of your life, be satisfied with the shorter-term certainties, such as where you live, how and with whom you love. For as they say, "A day is a long time in politics and so too it is more generally". For managers who are reading this, you need to, especially in times of change, reassure and comfort your people, rather than add to their worries with subtle or sometimes blatant hints of disruption. This creates fear. And most people, as I suggested in module 1, tend to focus on the danger inherent in change, rather than think of the wonderful opportunities that can present themselves.

So if uncertainty besets your life, go back to the basics of what you know is stable and dependable. If you don't have a place, then create one. I remember when my father was struggling with pressure at home, he would say he even missed the POW camp in which he was interned during WWII. He would say that while very day was the same and boring, it was at least predictable. This always reminds me how adversely some people can react to uncertainty and would actually prefer being bored than take risks, while others including myself see uncertainty as opportunities to take control and start new ventures.

3.3 Control

Obviously we humans like to have control, some more than others and we refer to some as "control freaks". Imagine if control was singularly the most important aspect of your life, how losing it would impact! Thus, and again importantly if you are a manager, perhaps the way you can stress your staff is to minimise the amount of power they have, restrict them with rules and regulations have a difficult and complicated chain of command and take away any opportunities for initiative to be demonstrated. If this though is how to stress someone, then patently the reverse must be true if you are trying to establish control again, say after chaos. One issue that's important here is the fact that many people have an attitude as if something other than them is in control, eg "I *have* to go to work today". I will ask you some questions Bill Glasser in his book, 'Control Theory' asked years ago, "*When the phone rings do we always answer it? Do we always stop at traffic lights? Does your mother in law make you mad?*" The answer is of course self evident – no, rather we choose to answer phones, stop at lights and in fact choose to be mad in response to something another person does!

Once we understand this we can then achieve a sense of autonomy and power so that this sense of losing control is nowhere near as relevant as it could be. There's a book called "Take control of your life", and another "Who pulls the strings", both preach this attitude of self-control being the ultimate control. I often say to managers for instance, "you get control by giving control away". It seems paradoxical in one sense, but just think about it. When you do

that you empower others and with people around you that feel strong, changes start to happen, especially in respect to overall group performance. The more you control people, the more they passively resist you. Can you point to any long-term successful dictators? (Fidel Castro may be an exception). Aside from the more benevolent dictators there have been none. Because ultimately you win the affection and support of people by making them feel strong enough to support you.

3.4 Support

All of us like to feel supported, when that is not there we feel less than valuable, we feel often alienated, especially if that lack of support means we can no longer stay in a group. Of course all of us need support to do our work. Think of me writing these notes. I need the support to spend time alone. I need technical support, administrative support, criticism, proofing and so on. The point I am making is that if these forms of support are removed, especially when I so desperately need them to satisfy the demands made upon me and I accept, then is it any wonder I get stressed. Thus finding some support somewhere in the absence of immediate support is a useful strategy. I guess that's why associations of like-minded people join together. One such group I am aware of is for partners of war veterans. Such support groups are especially helpful to wives of veterans who have felt for years unsupported and often isolated. What about one of the oldest associations, Alcoholics Anonymous. It is in fact through that support many alcoholics have found recovery, rather than any found through "shrinks" or medication.

3.5 Applying the Model

When I was foolish enough to teach my children to drive, I realised I was regularly getting stressed. All the elements were there including lack of control (they had the pedals and wheel). The demand was high, as I am not a trained driving instructor, the support was non-existent and certainly what was going to happen over the next hour was unknown, and boy was I stressed! It is this very analogy you need to apply if you are to beat the matrix of stress. You need to assess the situation using the matrix and then develop a strategy to assist you in all four areas.

3.6. An exercise

I want you to think of a time when you were pretty stressed. Below I want you to analyse the situation using the above template, i.e., demand on you, support, etc. Then I want you to assess how you got through it and how those four elements were addressed or if they were not, how you could have addressed them better than you did.

a) Demand _____

b) Level of certainty _____

c) Level of support _____

d) The control I felt I had _____

3.7. Discussion



Module 4

Measuring stress or anxiety and putting thought into action.

4.1 Phase 1

What you are about to embark on is simply the most impressive exercise that you can participate in relation to the question of stress. In the first part of this exercise I want you to complete the form that you will be handed out and hand them back to the facilitator. (See appendices 4-1.)

4.2 Phase 2

At this point the facilitator will conduct a brief introduction to relaxation followed by a 30-minute exercise. (See CD included with this module, 4-2).

4.3 Phase 3

At the completion of this exercise the class will complete a second form (See appendices II 4-3). These will be now marked and the results tabulated and recorded on a white board.

4.4. Discussion

The results are quite self-evident and in writing these notes you could ask how is it I could have been sure this exercise would work! I can do this because it has never failed in nearly 20 years of demonstrating this most interesting phenomenon. In fact I have attached some data from some war veteran courses we conduct, suggesting that even those damaged by psychological conditions can find marked relief from simply the use of relaxation, (See appendices 4.4).

I think it's important to explain how I developed this rather simple demonstration and the far-reaching implications for you.

When I was conducting experiments towards my doctorate, one group I studied was the Australian Army while they were in a continuous operation. I wanted to identify the impact of sleep deprivation and I measured the impact by actual changes to performance means, ie. how accurate they were and how quickly they could go into action. Of course after a day or so of sleep deprivation their performance was clearly effected. Then to ascertain the impact on them psychophysiologically I measured urinary Cortisol (see module 2) and at the same time I also gave them the very questionnaires you have completed.

Not surprisingly, if you have followed me so far there was a positive correlation, that is, as cortisol (a biological marker for anxiety) increased, so did the scores attained by the soldiers on the anxiety questionnaire you have just completed. After a night's sleep, their cortisol levels returned to normal

State Trait Anxiety Inventory

NAME: _____ AGE: _ SEX: M / F DATE: _____

DIRECTIONS: Read each of the following 20 statements and then circle the appropriate number to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer that seems to describe your present feelings best.

		NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1.	I feel pleasant	④	③	②	①
2.	I feel nervous and restless.....	①	②	③	④
3.	I feel satisfied with myself... ..	①	②	③	④
4.	I wish I could be as happy as others seem to be.....	①	②	③	④
5.	I feel like a failure.....	①	②	③	④
6.	I feel rested.....	④	③	②	①
7.	I am "calm, cool and collected".....	④	③	②	①
8.	I feel that difficulties are piling up so I cannot overcome them	①	②	③	④
9.	I worry too much over something that really doesn't matter....	①	②	③	④
10.	I am happy.....	④	③	②	①
11.	I have disturbing thoughts.....	①	②	③	④
12.	I lack self confidence	①	②	③	④
13.	I feel secure.....	④	③	②	①
14.	I make decisions easily.....	①	②	③	④
15.	I feel inadequate.....	①	②	③	④
16.	I am content	④	③	②	①
17.	Unimportant thoughts run through my mind and bothers me.....	①	②	③	④
18.	I take disappointments so keenly that I can't put them out of my mind.....	①	②	③	④
19.	I am a steady person.....	④	③	②	①
20.	I get in a state of tension or turmoil as I think over my recent concerns and interests	①	②	③	④

State Trait Anxiety Inventory

NAME: _____ AGE: _ SEX: M / F DATE: _____

DIRECTIONS: Read each of the following 20 statements and then circle the appropriate number to the right of the statement to indicate how you *right now* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer that seems to describe your present feelings best.

- | | | NOT AT ALL | SOMEWHAT | MODERATELY SO | VERY MUCH SO |
|-----|--|------------|----------|---------------|--------------|
| 1. | I feel pleasant | ④ | ③ | ② | ① |
| 4. | I feel nervous and restless..... | ① | ② | ③ | ④ |
| 5. | I feel satisfied with myself... .. | ① | ② | ③ | ④ |
| 4. | I wish I could be as happy as others seem to be..... | ① | ② | ③ | ④ |
| 5. | I feel like a failure..... | ① | ② | ③ | ④ |
| 6. | I feel rested..... | ④ | ③ | ② | ① |
| 7. | I am “calm, cool and collected”..... | ④ | ③ | ② | ① |
| 8. | I feel that difficulties are piling up so I cannot overcome them ... | ① | ② | ③ | ④ |
| 9. | I worry too much over something that really doesn’t matter.... .. | ① | ② | ③ | ④ |
| 10. | I am happy..... | ④ | ③ | ② | ① |
| 11. | I have disturbing thoughts..... | ① | ② | ③ | ④ |
| 12. | I lack self confidence | ① | ② | ③ | ④ |
| 13. | I feel secure..... | ④ | ③ | ② | ① |
| 14. | I make decisions easily..... | ① | ② | ③ | ④ |
| 15. | I feel inadequate..... | ① | ② | ③ | ④ |
| 16. | I am content | ④ | ③ | ② | ① |
| 21. | Unimportant thoughts run through my mind and bothers me.... .. | ① | ② | ③ | ④ |
| 22. | I take disappointments so keenly that I can’t put them
out of my mind..... | ① | ② | ③ | ④ |
| 23. | I am a steady person..... | ④ | ③ | ② | ① |
| 24. | I get in a state of tension or turmoil as I think over
my recent concerns and interests | ① | ② | ③ | ④ |

