Stress: an introduction and overview, by Dorothy Goresky

So much is written and said about stress. Amongst any day's publications, whether they be popular magazines, newspapers, business or financial publications, or our own medical material, it is likely we will find at least one article closely related to, or entirely devoted to stress. So it behooves us as dispensers of care for the physical, mental and emotional health of people to become familiar with the subject, and to allow our minds to break out of traditional medical thinking to explore this entire area.

Most of us are apt to consider stress to be confined to those events in our lives which we associate with being particularly difficult or pressuring to us. Perhaps this is partially due to our custom of dissecting and partitioning our lives—we separate the physical, emotional and spiritual although they can exist independently of one another — after all, our training is analytical. But Hans Selye, the father of stress, who brought the term into its present usage only 30 years ago, uses it in a much more inclusive manner.

Selye's text, **The Stress of Life**, published in 1956 and revised in 1976, makes fascinating reading. For those of us who are not compelled by the imagination and restlessness of the researcher and discoverer, it gives a glimpse into this world. Selye tells how as a student in Prague he went to his first clinical lecture in Internal Medicine and there was presented with several patients with infectious diseases. Each of the patients had a very similar picture — they felt and looked ill, they had coated tongues, diffuse aches, pains and fever. Then the professor enumerated a few "characteristic" signs which would help to make a specific diagnosis. Selye relates that these were either absent up to that point or so poorly defined that he could not distinguish them.

But it was upon these signs and symptoms that the professor was placing so much importance — he was relatively disinterested in the disturbances which seemed common to all of the diseases. Selye understood it was important to determine the *specific* cause of the disease if one hoped to come up with a specific treatment. But it seemed strange to him that so much effort had always been expended on recognizing individual diseases and discover the specific remedy, while paying so little attention to what he called "the syndrome of just being sick". He would have liked to explore this area even at that time but the pressure of Medical School prevailed and he followed the traditional route.

Then Selye came to Canada and in 1935 began research on sex hormones at McGill university. He began by injecting ovarian extracts into rats and was delighted that his earliest attempts resulted in several changes in the animal — enlargement of the adrenal cortex, atrophy of lymphatic structures and ulceration and bleeding of the gut. Ideas of success turned to puzzlement, however, when he discovered that extracts of the placenta, the pituitary and even kidney produced similar results. What was even more puzzling was that the more purified the extracts the less pronounced were the results. He began to wonder if the results were due only to tissue damage rather than a specific hormone and so he injected his animals with formalin and found to his

dismay that the effects were more marked than with any preceding substance. He retreated in despair. As he reviewed his experiments, he pondered that the responses he had shown might be the *nonspecific reaction of the body to damage of ANY kind,* and there was reborn to him the idea of the “syndrome of just being sick”. Were the signs and symptoms of this “syndrome of just bering sick” the *clinical* manifestations of this triad of changes he was demonstrating in his laboratory of animals? Could it mean that besides any specific signs of a disease or the specific effect of any medication there was also this nonspecific but characteristic response of the body to any demand made upon it?

The implications of this idea filled him with excitement and he discussed it with others. His enthusiasm was not reciprocated. In fact one of the senior professors responded to his concept with the remark “Selye, try to realize what you are doing before it is too late. You have now decided to spend the rest of your life studying the pharmacology of dirt!” But Selye believed in his idea and he continued to pursue it. He tells us however that without the encouragement of another great discoverer, Frederick Banting, he might well have given up. The results of his lifelong work form much of the basis of our present day concepts regarding stress, and of understanding stress related illness.

And now I want to trace my own evolution as related to this area. Medical training left me with the impression that the clinician has two main goals. Put simplistically, one is to determine the cause of a patient’s illness, and the other is to remove the cause. To this end, one uses the. Principle of differential diagnosis. Your training may have been different, but for me, at the very bottom of the list there would appear the category, “functional”. To oversimplify, “functional” came to mean, “we don’t know the cause of this illness, but it isn’t serious, it will likely never cause real harm to you, the patient, and it will likely go away by itself —don’t either of us worry about it.” There was sort of the idea that the condition didn’t really exist. And if one attached to this category of conditions the name, “psychosomatic”, it also implied “it’s all just in the patient’s head”.

I have always been troubled by this approach. For one thing, I felt that things hadn’t been satisfactorily explained for my own reassurance; even if the patient was reassured did I not owe her a better explanation of why she felt the way she did? And what had I really given her to help remove the cause? Medical school had not given me any techniques or tools.

And so I fell back on using the “flight or fight” response to explain to my patients the “psychological why” of their symptoms. But this still left me with the problem of treatment — of removing the “cause”.

The burst of philosophies and ideas associated with the human potential movement of the past number of year has offered much. But where does the practice of medicine begin and where does it end? What is the responsibility of the general practitioner or of the non-psychiatric specialist? Do I take time to instruct patients in preventive practices and make them more fully aware of how their health is affected by all the

factors in their lifestyle — their diet, sleep, rest, exercise, alcohol use and smoking habits; their general attitude toward life, and the amount and kinds of pressures they allow into their lives, along with ways in which they can more readily cope with them? If I choose not to, should I be telling them where they can go to find such instruction if it is available?

What about these new-old ideas that are around? Are they a bunch of nonsense? ‘When acupuncture is found to relieve pain is it because the person has faith in it, and therefore the pain really was “just in her head” to begin with? Or does the discovery of the endorphin in the brain, one of which is a more powerful analgesic than morphine, give us reason to think that perhaps there is now scientific evidence to explain why and how acupuncture works? Do Simonton’s visualization techniques to control or “cure” cancer have any validity? Could the mechanism operating there be related to that in biofeedback which has shown that the autonomic nervous system is NOT beyond the control of our thoughts, our minds? Is the placebo effect something very different from what we had always imagined? Does the very attitude, expectation, “faith” held by a person actually have a neural-endocrine effect which can alter a person’s health? Does the fact that a person in a state of meditation is shown to be able to reduce his metabolic rate by 10% to 20% in only 3 or 4 minutes, while usually it falls gradually only by some 8% after 4 or 5 hours of normal sleep — does this indicate that meditation may have an application for us as a method of reducing stress in our daily lives?

We must rigidly evaluate all treatments offered to people, especially if their use may in any way endanger health. Endanger it, either because of the direct effect of the treatment, or because, by receiving it the patient then fails to make use of accepted treatment which WOULD enhance their health. But must we always await scientific corroboration before being able to acknowledge that something “really does work” in the relief of a patient’s symptoms? Do we reject ideas solely because they don’t fit into our scheme of thinking? Selye has said that “The biggest of all blocks to improvement [is] the certainty of things being right”. If we can allow ourselves to get past “the certainty of things being right” so that we are at least open to exploring these “unscientific” ideas, we may find there are other than the treatments of traditional Western medicine which can be valuable to ourselves and to our patients.

If only there were time, energy and ability to explore all these avenues and still keep abreast of the explosion in medical knowledge. To quote Omar Khayam,

“Could thou and I with Fate conspire
To grasp this sorry scheme of things entire.”

We are living in exciting times!