by Ven Pende Hawter The Karuna Hospice Service P.O.Box 2020 Windsor 4030 QUEENSLAND Tel: (07) 3857 8555

The cause of suffering and pain and methods to overcome them have fascinated philosophers and scientists for hundreds of years. Perhaps the fascination with pain stems from the fact that pain is the inevitable by-product of life itself. Indeed, it was on seeing a sick person, an old person and a corpse that alerted the Buddha to the suffering nature of our existence and caused him to renounce his kingdom and lead the life of an ascetic in order to find a way out of suffering. Upon achieving his goal, his first teaching was on the truth of suffering, its cause, and how to overcome it.

To evaluate the role of relaxation therapy and meditation in pain control, it is useful to remind ourselves of what constitutes pain. The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage". The definition goes on to say that "pain is always subjective... It is unquestionably a sensation in a part or parts of the body, but it is also always unpleasant and therefore also an emotional experience". The most simple and useful definition of pain is "Pain is what the patient says hurts" (IASP Sub-Committee 1980).

To emphasise the complexity of pain in people with advanced cancer, Dr Cicely Saunders, in the late 1960's, coined the phrase 'Total Pain'. She described this as having physical, emotional, social and spiritual components and suggested that, unless each of these components was tackled, pain relief was unlikely.

FIGURE 1: Total Pain

Figure 1 is from "Symptom Control in Advanced Cancer" by Robert Twycross and Sylvia Lack and expands on this concept of total pain. It shows some of the factors that may be involved, all of which can increase the distress of the patient and increase his pain.

Kapleau says that

"Pain is a physical sensation very much colored by emotional states, spiritual condition, cultural conditioning, fear of the disease causing the pain, fear of the death that may result, and the perception of one's condition relative to the cause of the pain. In addition, perception of one's total life circumstances, how one learned to relate to pain as a child, fatigue, and even the degree of distraction from the pain at any given moment influence the sensation. Studies have shown that music, white noise, hypnosis, or a distraction of attention will raise the threshold of pain, while fear, stress and fatigue will greatly lower it.

"According to Dr Robert Twycross, a British expert on pain, chronic pain is often due to an incomplete understanding of the source or sources of the patient's pain by his or her doctor, for physical pain can arise from much more than the specific tumor, incision, lacerations, or illness of the patient. Bedsores, constipation, anxiety, exhaustion, changes in posture or in the use of limbs in response to pain, and more will cause pain. Friends, family, doctors, and nurses interacting with the patient can, by their attitudes and responses to the patient alone, help alleviate pain."

This concept of 'total pain' is central to the philosophy of palliative care and is one of the reasons why the multiprofessional approach to the dying person and his family is so important, and why relaxation and meditation can be effective in controlling pain.

Spiritual distress or pain is a crucial factor in palliative care and needs to be approached skilfully and sensitively. The dying patient is confronted with a number of huge losses. He is faced with losing his friends, relatives, possessions, his control and dignity and independence, not to mention his body and life itself. He can be fearful of death and uncertain of what lies beyond. He may have regrets for things previously done or not done. He may experience one or more of the feelings of unfairness, unworthiness, hopelessness, guilt, isolation, vulnerability, abandonment, punishment, confusion and meaninglessness. All of these concerns can exacerbate his pain.

The experience of pain can trigger a vicious cycle. It can result in guarding or muscle spasm which in turn can cause dysfunction in the affected soft tissues and joints. A pain cycle may be set up, accompanied by internal changes that compound the pain. These are summarised in Figure 2, taken from Mannheimer and Lampe's book on T.E.N.S. - decreased circulation, decreased oxygen supply, decreased lymphatic clearing, decreased nutrient supply, increased metabolism, increased concentration of metabolites, increased muscle fatigue, inflammation, and oedema. Associated with these changes may be the production and concentration of endogenous pain-producing substances such as bradykinin, serotonin and histamine.

FIGURE 2

A chronic pain cycle may then become established, involving the patient physically and psychologically (see Figure 3, also taken from Mannheimer and Lampe).

The mental attitude of the patient towards his pain plays a major role in his perception of pain. Negative feelings may lead to depression and hopelessness, which directly affect the limbic system in the brain-stem. The limbic system responds to thoughts, suggestions, past experience and emotions. It has neural connections with the hypothalamus and thus has a profound effect on all autonomic mechanisms. The limbic system also appears to be associated with the production of the body's opioid substances i.e. the endorphins, encephalins and dynorphans. Through these mechanisms, stress and pain can therefore affect the normal functioning of all body systems.

FIGURE 3

The use of relaxation and meditation can help to break the pain cycle by reversing some of these physical and mental effects. The psychological effects of relaxation are summarized in Figure 4.

FIGURE 4

There is a point that I want to make quite strongly here. I believe that the use of relaxation and meditation in the treatment of life-threatening illness or pain is a complementary rather than an alternative technique. For example, a meditation technique that I have used with patients for a number of years is a white light healing meditation. This can be done in various ways, but basically it involves visualising a source of brilliant, white, radiating, blissful light energy entering one's body and dissolving away all sickness, cancer, worries, concerns, fears etc., leaving one's body totally healed and cleansed and in the nature of this white light energy. For people with a spiritual background, I encourage them to visualise the light coming from Jesus or Buddha or whatever spiritual figure they have faith in. For patients using this white light meditation, I also encourage them to visualise their medicine or chemotherapy or radiotherapy as being in the nature of this white light healing energy, rather than having a feeling of aversion or negativity towards it. I believe that this technique enhances the benefits of whatever other treatment they are having, perhaps through the mechanisms mentioned earlier.

Relaxation techniques are rarely used on their own in the treatment of pain but are generally combined with other meditation or psychological techniques. Relaxation is commonly used to disrupt the pain-dysfunction feedback loop by increasing patient control over general well-being, thereby decreasing the focus on pain, as well as the tension, anxiety, or depression related to pain. Relaxation has been combined with other cognitive-behaviour strategies, particularly distraction, in the treatment of various conditions including cancer pain. A great benefit of techniques such as relaxation and meditation is that they allow a patient to gain a feeling of control over his situation at a time when he may seem to be losing control.

Syrjala points out that relaxation has three primary advantages over the similar but more complex techniques of biofeedback and hypnosis: (a) patients can be trained in the use of relaxation skills with relative ease; (b) no special equipment or extensive training of the therapist is required; and (c) patients readily accept relaxation techniques, whereas it has been shown that they are more likely to reject hypnosis.

Before relaxation instruction is given, it is good to explain to the patient the rationale for doing it. Many patients don't see the connection between relaxation and pain reduction and may think that the doctor regards their pain as psychological. A brief discussion of the feedback loop between pain and tension or fear may be helpful. Patients can also be told that relaxation training is harmless and, if nothing else, will leave them feeling relaxed. This approach is better than promising patients dramatic pain relief, since this rarely occurs initially. Patients also need to understand that the benefits of relaxation take time to develop and that daily home practice is necessary to become adept at the procedure and to maintain benefits. Home practice is usually supported by audio tapes, and I give all of my relaxation patients one of my tapes to use at home. I usually advocate doing the relaxation for 20-30 minutes, once or twice per day. I recently had a patient who came to me after having a brain tumour removed and she was able to meditate 3 times a day for 1 hour with good concentration, but this is unusual for someone new to relaxation or meditation, and usually they need to build up slowly.

The two most common forms of relaxation that are taught are progressive muscle relaxation and autogenic relaxation. In progressive muscle relaxation the patient systematically tenses up various muscle groups in the body and then slowly releases the tension until the whole body is relaxed. I find this technique useful in those who have a lot of muscle tension and who find it very hard to relax normally. As a physiotherapist, I have seen a number of patients over the years with neck and head pain who carry a tremendous amount of tension in their neck muscles and who find it almost impossible to relax these muscles, and progressive muscle relaxation can be very useful with these people. It is not a technique I would usually use with a seriously ill person as I find it a little harsh or strong.

I mostly use a technique that is based on autogenic relaxation. This is similar to progressive muscle relaxation in that it systematically checks through the body, bringing each area into awareness and letting go of any tension or tightness or discomfort found in that area, but in this technique the muscles are not tensed up first. After checking each part of the body, the patient allows that part of the body to feel warm, heavy and relaxed. This is a gentler technique which I prefer to use with people who are sicker or in pain. The person can be encouraged to open and soften around their pain. Stephen Levine makes the point that "When pain arises in the body, it is very common to close around it. But our resistance and fear, our dread of the unpleasant, magnify pain. It is like closing your hand around a burning ember. The tighter you squeeze, the deeper you are seared. We have seen that much of what is called pain is actually resistance, a mental tightening reflected and experienced in the body". So it helps to encourage the person to open and soften around the pain, to let the experience of pain float free. I will say more shortly about this method of exploring pain.

Imagery is a commonly used meditative technique which can be combined with autogenic relaxation. Imagery creates distraction as well as the experience of comfort, well-being, and mastery of a problem. For instance, a patient can be asked to choose a place where he has felt relaxed and comfortable at a time when he was pain-free. As the patient recaptures the familiar experience of this place with all of the senses, he also recaptures the feeling of comfort. It is then suggested to the patient that by imagining himself in that place, he can once again be comfortable and in control of his experience. This is not a technique I have used a lot myself, but it is widely used and many people are helped by it.

There are two basic types of meditation:

1) single-pointed or fixed meditation where the aim is to develop a clear and still mind, and;

2) analytical meditation where the mind explores a particular topic or phenomena. These are often combined, for example doing an analytical meditation followed by a fixed meditation on the feeling generated or the conclusion that one has come to.

A simple but extremely effective form of meditation is breath awareness meditation, usually done after one has relaxed the body. Here the person becomes aware of the normal rhythm and flow of the breath, either focusing on the movement of the breath at the nostrils or on the movement of the abdomen inwards and outwards. The aim is to let go of the thoughts that come into the mind and allow the mind to become still and calm, aware only of the movement of the breath. As an aid to concentration one can silently recite certain words or prayers or mantras in time with the breath, or one can count the breath, say in batches of 10 breaths. This technique, although simple, can lead to very deep states of relaxation and is an excellent way for a person to let go of worries and fears and anxieties and to achieve a state of peace and calm. Ainslie Meares, the Melbourne psychiatrist who used this technique a lot with cancer patients, commented that even those patients who proceeded to death did so with much greater acceptance and peace. This is also a very useful technique for people who cannot sleep because of pain or anxiety. For those who have a spiritual faith I often get them to combine the breathing with a short prayer which they recite over and over again in time with the breath, and they generally find this to be a great comfort, as well as lessening the anxiety about their condition or inability to sleep.

Another type of meditation that is very powerful for pain relief is to go into the pain and explore it - there is some indication that for more extreme, unremitting types of pain such as with terminal cancer, focusing on the pain rather than away from it is more effective in achieving pain reduction.

Usually when we have pain we meet it with fear, avoidance and resistance, which causes more tension and hence more pain. This technique of exploring the pain is advocated be people such as Stephen Levine and Ian Gawler and can be very effective. I have not used this technique a lot personally, but a friend of mine who works with Ian Gawler says that he has had very good results with it with cancer patients, and has seen people with chronic pain from their cancer become pain-free after mastering the technique.

Stephen Levine, in "Who Dies?", comments that: "Much of our pain is reinforced by those around us who wish us not to be in pain. Indeed, many of those who want to help - doctors, nurses, loved ones, therapists - because of their own fear of pain project resistance with such comments as, "Oh, you poor baby!" Or a wincing around the eyes that reinforces the pain of those they are treating. Those who have little room for their own pain, who find pain in no way acceptable, seldom encourage another to enter directly into their experience, to soften the resistance and holding that so intensifies suffering. Pain for most is treated like a tragedy. Few recognise the grace of deeper investigation. As one person said after opening to and exploring their pain, "It isn't just the pain in my spine or my head or my bones, it's all the pains in my life that I have pulled back from that have imprisoned me. Watching this pain in my body makes me see how little of the pain in my life, in my mind, I've given space to."

"Many who have worked with these exercises have said that it wasn't just the pain in their body that they hadn't understood, it was also the fear, the boredom, the restlessness, the self-doubt, the anger which they had always pulled back from, which they had never allowed themselves to enter into. That they had never fully met themselves in life or dealt with death because they had always been encouraged to withdraw from anything that was unpleasant. The unpleasant had always acted as their jailer.

"Many have told us that their opening to pain has allowed them to begin to open to what has made life difficult. Has allowed them to begin to understand what anger is, what fear is, what life itself might be. Life begins to open when we begin to recognize the enormity of our opposition. As painful as the body can become, the mind's fearfulness is so much more discomforting. Many begin to make friends with their pain, to meet it as softly as possible, to investigate it as it is. Not just the pain in the body but the suffering in the mind. To look beneath the anger and discover the frustration, the blocked and unfilled desires at things not being as we wished. Investigating this frustration we find beneath it a great sadness and yet letting go deeper the most immense love is discovered. Starting to examine all these states of mind which have imprisoned us in the past becomes a fascinating meeting with ourselves. To penetrate into each state of mind, into each sensation in the body, and to experience it fully so that they no longer have some strange mystique but are

seen simply as clouds constantly changing in density and form yet always floating in the spaciousness of being.

"Many who have spent their whole life withdrawing from pain come to see that by withdrawing they have never gone beyond their pain. That their whole life has been a juggling act, always trying to keep one ball in the air, never quite grounded in life. They begin to cut the bonds of fear that the investigation of their reaction to physical pain has made them aware of. They move fully into life and, at the moment of death, leave the body behind without resistance or struggle, in an openheartedness and love that become a legacy of wisdom.

"Ironically, we have found that those people we have worked with who have been in the greatest pain are those who tended to go deepest into an exploration of what has kept them bound to fear and resistance. In pain, they have seen how shallow their philosophies or imaginings have been. They come right to their edge in the investigation of life they were never prodded to undertake before. Their pain acted like a fierce and loving teacher that reminded them again and again to go beyond their holding, to investigate deeper, to let this moment be as it is and observe what arises in the fullness of the next.

"Then it is not the death of one who wishes at any cost to be rid of pain. It is an opening to how life has been blocked. A clear reception of life that allows one to go beyond death. These are the people who go naked into the truth."

In this technique of exploring the pain, the person sits or lies comfortably and closes their eyes. They then relax as fully as possible by using one of the techniques mentioned previously. They then move their attention through the body, seeking an area that feels different e.g. painful, tight, or under pressure. They are then instructed as follows:

Be aware of //where the sensation is// in your body, e.g. the stomach. Be as specific as possible, e.g. close to the skin, deep in the abdomen, in the upper or lower region. Does it stay in one place or is it moving? Does it vibrate? Ask yourself "Where is it?"

Be aware of //its shape//. Is it like a ball, a sphere or a rod? Does it have tendrils? What is its shape?

Be aware of //its size//. How long is it? How wide? How deep? What is its size?

Be aware of //its density//. Is it heavy or light? Is it the same all the way through? What is its density?

What does it //feel like//? What is its //surface texture//? Is it soft and fuzzy, or hard and smooth? What does it feel like?

What //temperature// is it? Is it hot or cold or the same as everywhere else in your body? What temperature is it?

What //colour// is it? If this is vague, imagine what colour it might be. What is its colour?

Focus on the //breath//. For three rounds of breathing imagine

drawing the breath into the body and using the breath to wash around the area you've identified. Then the breath ebbs gently with the exhalation. For the next three rounds of breathing imagine the breath is drawn inside the area identified, washes around the inside, then ebbs away with the exhalation. For the final three rounds of breathing focus on the breath again washing around the outside of the area and washing away with the exhalation.

Having developed a good image of the pain in this way, there are then several options:

1) Keep repeating the process of scanning the body, locating and examining the pain using the above guidelines. Once the pain is fully experienced in this manner, it will often simply fade away;

2) Having developed a complete image of the pain, put your centre of attention inside that image and consciously relax it. Doing this may cause an initial increase in discomfort as you concentrate fully on the pain, but the process will enable you to pass through the pain and become free of it.

Gawler says that usually, as you relax the pain from the inside, it feels like a bubble bursting in slow motion as the outer shell of the pain breaks down and a wave of warmth and relaxation spreads from the inside out. This wave usually feels as though it extends out into the rest of the body, and feels very pleasant.

Sometimes, while this process of concentrating upon a pain and releasing it is being practised, there can be a natural release of pain-relieving endorphins, and some people have learned how to trigger this response consciously and top up their pain management this way.

Once established, this technique apparently requires little energy to maintain it. The pain can be acknowledged and accepted, and life can carry on free from its effects.

In a paper written by Kabat-Zinn, in which a meditation technique similar to this was used in a 10-week program with three groups of chronic pain patients, more that 50% of patients reported greater than or equal to 35% reduction in both present pain and in general body problems. In each group 35 to 50% of the patients reported greater than 50% reduction on a pain rating index.

The final type of meditation that I want to discuss is one that can not only reduce the pain or the perception of the pain but can actually result in a deep psychological and spiritual healing. It is one that I have used with a number of people in recent years, often with quite profound results. But it is not a meditation that can be given to everyone, and you have to choose carefully those you think are ready for it.

The starting point of this meditation is for the patient to develop the understanding that "it is not //my// pain that I am experiencing, but //the// pain, the pain of the universe, the pain that all beings have to experience by being alive". Following the understanding of the universality of pain, one can then begin to open up one's heart to the pain of others. Great healing can occur when one does this, and many experience this psychological and spiritual healing as they approach death.

Then the person tries to generate the thought "By me experiencing this pain, may all other people be free of this type of pain. By me having

this cancer, may all other beings be free of cancer and have long and healthy lives." We can actually do this with any physical or mental pain that we experience. For example, if we have a headache, we can think "By me having this headache, may all people everywhere be free of headache." One voluntarily takes on the suffering of others in one's mind. What this technique does is to turn the mind away from our usual self-preoccupation, especially evident when we are sick or in pain or dying, and uses the problem to generate compassion towards others. The pain or problem is no longer seen as a problem and actually becomes the basis for developing compassion towards others. It is said that the mind of compassion is the greatest healer, at all levels, and for those who can use this technique the results can be quite profound.

These, then, are some ideas about how relaxation therapy and meditation can be used in pain control. I hope that something in this paper has been of interest or benefit to you.

Compiled June 1992 Updated April 1993

REFERENCES

Gawler, I. Peace of Mind, Hill of Content, Melbourne, 1987

Gawler, I. You Can Conquer Cancer, Hill of Content, Melbourne, 1984

Kabat-Zinn,J. An Outpatient Program in Behavioral Medicine for Chronic Pain Patients Based on the Practice of Mindfulness Meditation: Theoretical Considerations and Preliminary Results, General Hospital Psychiatry 4, 33-47, 1982

Kapleau, P. The Wheel of Life and Death, Doubleday, N.Y., 1989

Levine, P. Who Dies? An Investigation of Conscious Living and Conscious Dying, Anchor Press, N.Y., 1982

Mannheimer, J.S. and Lampe, G.N. Clinical Transcutaneous Electrical Nerve Stimulation, F.A.Davis Co., Philadelphia, 1984

Syrjala,K.L. Relaxation Techniques, in Bonica,J.J. The Management of Pain, 2nd Edition, Lea and Febiger, Philadelphia, 1990.

<end of file>