ANXIETY

McCracken and Gross ([1]) looked at how anxiety affects chronic pain. They found

"Generally, cognitive anxiety was associated with less overall coping with pain, whereas physiological anxiety was associated with a greater coping with pain. Escape and avoidance anxiety responses were associated with greater use of overt pain behaviors for coping."

They suggested that

"catastrophizing may be better conceptualized as a distress response rather than a coping strategy."

Helplessness:

Pain has been described by psychologist Dr. Chris Eccleston as

"a threat to personal identity"([2]).

An American army medical officer held in the Viet Cong for over 5 years survived the first couple of years in relatively good health. He was told by his captors that if he co-operated with them, he would be released, and he became a model prisoner.

However, as time went on, he came to realise that they had lied to him. Once this notion took hold of him, he took to his bed, refusing food, lying on his cot sucking his thumb. He died within a matter of weeks. His loss of hope was fatal.

Similarly, scientists have found that animals exhibit a trait known as ?learned helplessness' in which they fail to even attempt to stay alive when put in life-threatening circumstances.

This was shown with rats in the late 50s. A rat held tightly in the hand until it stopped struggling, and then dropped into water splashed around for a few minutes and then sank passively to the bottom of the tank, having ?given up', because it had been convinced its fate was hopeless even before it was released into the water.

For those who experience chronic pain, one of the most important factors in coping is a repeated perception of loss of control over one's life, which is associated with a feeling of helplessness and often depression.

Studies suggest that individuals who have a lesser sense of control over their situation are likely to report higher levels of pain and distress, with greater overall negative impact of the illness on their daily lives.

Interestingly, a study published in late 2001([3]) found that functional MRI scanning (fMRI) shows differences in blood flow in certain parts of the brain according to differences in beliefs about pain control.

A questionnaire called the Beliefs in Pain Control Questionnaire (BPCQ) designed by a Professor of Health Psychology, looks at patients' beliefs about where control of their pain lies, whether within themselves (Internal), with doctors (Powerful Doctors) or is down merely to chance (Chance).

The study found that patients with fibromyalgia varied in their brain's response to painful stimulus according to their belief about the source (locus) of their pain control.

Whilst at this stage, the complexities of pain processing remain poorly understood, there does seem to be a correlation between patients' beliefs and their processing of pain.

This means that we must consider closely what exactly those belief and ideas might be and concentrate on maximising the beneficial ways of thinking whilst minimising the unhelpful ones.

Crisson and Keefe ([4]) looked at how locus of control affects the way a patient copes with pain.

They noted,

"patients who viewed outcomes as controlled by chance factors such as fate or luck tended to rely on maladaptive pain coping strategies and rated their abilities to control and decrease pain as poor. They also exhibited greater psychological distress."

They also found,

"patients having a chance orientation toward locus of control were more likely to report depression, anxiety, and obsessive-compulsive symptoms and to have higher overall levels of psychological distress. Chance locus of control also predicted greater reliance on diverting attention and praying/hoping in dealing with their pain. In addition, patients high on chance locus of control reported feeling helpless to deal effectively with their pain problem."

They concluded:

"Clinicians evaluating chronic pain patients need to be aware that patients who view outcomes as controlled by external factors such as chance may have deficits in pain coping strategies and may report greater psychological distress than patients who do not have this locus of control orientation."

FEAR

John Donne wrote about the strength of fear:

"Fear insinuates itself in every action or passion of the mind, and as gas in the body will counterfeit any disease...so fear will counterfeit any disease of the mind...I know not what fear is, nor I know not what it is that I fear now; I fear not the hastening of my death, and yet, I do fear the increase of the disease; I should belie nature if I should deny that I feared this."

Fear tends to revolve around the following:

- What does the pain mean? Could there be something more serious going on that the doctors have missed? Is there something I'm not being told? *
- Does the pain mean that there is ongoing damage?

- Fear of the pain, especially of it escalating out of control
- Fear of loss of function and how that will affect life
- Fear of the effects of the illness on finances and on relationships
- Fear of the future
- Fear of not being able to cope

* Note that loss of confidence in medical staff is likely to compound this fear. Also, there may be someone the patient knows who had a similar problem, which turned out to be something very serious, or even life threatening like cancer.

Dr. Claire Weekes, wrote "Self Help for Your Nerves" in 1977([5]).

"The sufferer ...is neither fool nor coward, but often a remarkably brave person who fights... to the best of his ability with commendable although often misdirected courage. He may fight through almost every waking moment, with sweating hands and tensed muscles, agitatedly trying to force forgetfulness of his desperate state by consciously concentrating on other things. Or he may pace the floor of his mind, anxiously searching for a way out of his miserable prison, only to meet one closed door after another."

Dr. Weekes maintains that what is happening to the individual results from fear and his response of fight or flight, which she terms the "fear-adrenalin-fear cycle".

She suggests that fear is the basic cause of nervous symptoms, "anxiety, worry and dread being only variants of fear in different guises."

As she points out, many people are loath to admit even to themselves that they are afraid, such is the stigma.

Dr. Weekes describes the torments of someone who develops "fear of the very feelings that fear itself had aroused."

Fear of pain itself can be a barrier to effective pain management. A Dutch group have discussed the notion that chronic pain and chronic fear share important features.

They looked at patients with low back pain who had a substantial fear of movement and/or re-injury and found that with certain behavioural techniques, over a period of time, the patients were encouraged to undertake previously avoided activities and were able to do so.

Professor Crombez, of Gent, Belgium, suggests that pain-related fear creates a hypervigilance to pain.

Crombez notes Waddell's statement that

"Fear of pain and what we do about pain may be more disabling than pain itself" ([6])

His research with chronic pain patients

"is focused upon the determinants (pain catastrophizing) and consequences (avoidance, physical deconditioning, hypervigilance, negative affect) of excessive fear of pain."

A number of studies have shown that pain-related fear is one of the most potent factors in limitation of physical function and level of disability in chronic pain. ([7] ; [8])

Vlaeyen suggested a cognitive-behavioural model of pain-related fear ([9]).

If pain, possibly caused by an injury, is interpreted as threatening (?pain catastrophizing'), pain-related fear can evolve. Avoidance may become anticipatory rather than in response to pain increase, or may be a part of a rest/overactivity cycle that many pain patients become trapped in.

Periods of over-exertion lead to increased pain, which then leads to stopping most or all activity (complete rest), and a repeated yo-yoing of too much and too little exercise which tends to persist because the increased pain becomes associated with activity, whereas in fact it may well be more to do with deconditioning (loss of muscle strength and stamina through inactivity).

Avoidance may be entirely logical if the patient believes that activity is likely to cause damage. This situation may arise if the medical personnel have given incomplete or contradictory information.

Fear is thus not due to an irrational belief, but to an erroneous one. Fear based on incorrect beliefs is likely to be dissociated from actual pain experiences.

Pain-related fear leads to muscular reactivity (increased muscle tone, twitching, tendency to cramp and spasm etc.), hypervigilance (increased attention to and awareness of pain sensation), and avoidance behaviours (avoiding the activities that are thought to be triggers for pain).

Long-term avoidance may subsequently increase levels of disability, disuse and depression, through physical deconditioning and emotional demoralisation. Depression may well contribute to the pain experience thus fuel a vicious circle of increasing fear and avoidance.

Asmundsen remarked in a recent paper in the Canadian journal of Pain management([10])

"The association between chronic pain and anxiety may not be particularly surprising when one considers that, in the acute phase, both pain and target-oriented anxiety (or fear) motivate actions that serve to minimize the threat and maximize the likelihood of successful escape...."

"It is possible that one causes the other; that is, fear might cause chronic pain or, alternatively, chronic pain might cause fear. It is also possible that each influences the other."

Dr. Amanda C de C Williams stressed at a workshop at St. Thomas' Hospital in 2002, that fear of pain and damage is itself disabling.

She quoted patients who had expressed fears such as

"if I move, my muscles feel as if they are tearing apart";

"my surgeon said it was too risky to operate to free the nerve, so I worry what might happen if I move suddenly or fall over";

"I was told it's wear and tear, so I'm worried I'll wear out".

Fear over mental health and wellbeing are also disabling: what if I can't cope? I try not to give in to the pain but it still defeats me...I'm worried I'm going crazy". What does ?not coping' mean to the individual: losing control, losing the house, losing your mind, losing the family?

If these fears go unchallenged, they may grow and spread and become complicated by ?fear of fear'. Reassurance is not the answer. Fear must be exposed, faced and beliefs must be disconfirmed by specific education.

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[3] Farrell et al, ImmuneSupport.com Supraspinal Activity Associated with Painful Pressure in Fibromyalgia is Associated with Beliefs about Locus of Pain Control

[4] Crisson JE, Keefe FJ. Pain. 1988 Nov;35(2):147-54. The relationship of locus of control to pain coping strategies and psychological distress in chronic pain patients.

[5] Latest publication Thorsons 1995

[6] http://www.psy.kuleuven.ac.be/leerpsy/crombez.html

[7] Asmundson GJ, Norton GR. Allerdings MD. Pain 1997: 69(31): 231-6. Fear and avoidance in dysfunctional chronic back pain patients.

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[10] Asmundsen GJG Pain Research and Management (Journal of the Canadian Pain Society) Spring 2002 Vol. 7 No. 1 Anxiety and related factors in chronic pain