NLP and Relief of Chronic Pain

by Libuška Prochazka and Dr Richard Bolstad

Pain Relief and Hypnosis

There can be few tasks more satisfying than watching a person who has suffered physical pain for months or even years, as they suddenly discover how to create total inner comfort.

Being both health professionals and NLP Practitioners has had its advantages for the two of us writing this article (Libuška is a physiotherapist and Richard is a nurse). Each of us has been able to apply a combination of NLP and standard medical treatments to the management of clients with chronic (long term) pain. However, as the case studies we explore here will show, an NLP Practitioner with no previous medical knowledge can achieve seemingly miraculous results in pain relief.

It's no surprise that we can learn a lot about pain relief from Neuro Linguistic Programming itself. NLP's origins lie partially in the hypnotherapeutic work of Milton H. Erickson, whose ability to alleviate pain was studied by Richard Bandler and John Grinder in one of NLP's first books (1975, p 26-50). As early as 1850, the English surgeon James Esdaile (1957) demonstrated that hypnosis could remove the acute pain of major surgery, reliably delivering an effectiveness comparable to chemical anesthesia. There have been plenty of experimental studies showing how and to what degree artificially induced pain can be relieved by hypnosis, but it is now well established that the clinical results of the method far exceed the experimental ones (Hilgard and Hilgard, 1994). Put simply, it's a lot easier to stop the pain of a person about to be cut up in real-life surgery, than it is to stop the pain you have experimentally induced by asking a volunteer to plunge their hand into ice-water for a few minutes.

This fact alone tells us something extremely important about pain relief by "hypnosis". It works best when the person really needs it to work. The technique of hypnosis is not a drug which will work regardless of the person's attitude. It is a technique for utilizing the person's attitude. In fact, pain, as we will show in both research and case studies, is heavily determined by a person's attitude. This is why hypnotherapist Joseph Barber recommends (1996, p 20-21) that hypnotherapy for pain relief should only be used when:

1. The client will not take advantage of the hypnotic situation to injure themselves further (eg by avoiding needed medical assessment and treatment; obviously, someone with longstanding pain would benefit from having the physical causes checked out carefully before you remove their discomfort).
2. The client will not lose other benefits of being a pain-sufferer (eg financial compensation from legal action; these benefits are often called "secondary gain").
3. The client can manage the personal interaction involved in talking with a hypnotherapist.
4. The client is willing to take responsibility for initiating their own treatment.

Pain and the Brain

The research on pain itself is intriguing because pain is not the phenomenon most people think it is... or to put it another way; pain very much IS what people think it is. Let us explain...

The skin, muscles, bones and other tissues have nerve cells with endings specialized to respond only to stimuli strong enough to cause tissue damage. These endings are called nociceptors and they become more sensitive with continued stimulation (unlike most nerve endings, which become less sensitive over time of stimulation). Damaged tissues release chemicals such as prostaglandins, which make nociceptors more sensitive, and drugs such as aspirin inhibit prostaglandin production. When nerve cells themselves are damaged, nociceptors may misfire repeatedly, producing longer term (chronic) pain which no longer gives the brain useful information about a current injury or danger.

The messages from nociceptors are passed through their nerve cells into the spinal cord, where other specialized nerve cells act as switches, deciding whether the messages have priority enough to be sent to the brain. More urgent danger ups the priority of a pain message; but pain that accompanies safe and pleasant experiences may be classified as irrelevant and never reach the brain. Natural body chemicals called endorphins (released during exercise, massage or other positive experiences such as sexual activity) switch the pain off in these cases, and opiates such as morphine mimic the action of these endorphins. What this spinal gating process means is that a person who is happy for other reasons may feel no pain at all from stimuli that are apparently quite painful. These stimuli may not even get near the brain!

If the messages pass the spinal gating systems, they are transmitted to the thalamus in the brain and from there into the limbic system, where the person responds to them emotionally. A baby who bangs her or his head may feel extreme pain while alone, but relax and stop crying when held by a known caregiver. Such emotional contexts either enhance or reduce the pain signals long before they reach the cerebral cortex and are registered consciously. In the case of a baby being "comforted" after banging its head, the pain stimuli may be felt, but felt in such a context that they are not considered significant.

Pain which persists or recurs for over six months is called chronic pain. Chronic pain seems to alter the processing in the brain, so that there is abnormal activity in the nociceptors in the somatosensory cortex (the area of the brain that finally registers what kinesthetic sensations you believe occurred in what part of the body). When the brain is scanned using PET (positron emission tomography) this abnormality is clear. Studies by Pierre Rainville, Catherine Bushnell and Gary Duncan (2001) show that hypnotic suggestions can increase or decrease this abnormal activity in chronic pain, and hence alter the pain experience. Other more recent studies, using fMRI scans (functional magnetic resonance imaging) show that the mere expectation of pain produces 40% of the response produced by "real" pain in the pain receptors in the cortex of the brain (Porro et alia 2002). Researchers Dennis Turk and Akiko Okifuji explain results of several studies showing that "In chronic pain, pain-related anxiety and fear may actually accentuate the pain experience... When people with pain symptoms are exposed to a feared situation (eg walking up a flight of stairs), some experience a cascade of avoidance responses... Fearful patients appear to attend more to signals of threat and to be less able to ignore pain-related information." (Turk and Okifuji, 2002, p 679-680).

In summary, "pain" as we know it is at largely a result of our thinking about it. Milton Erickson says "Pain is a complex, a construct, composed of past remembered pain, of present pain experience, and of anticipated pain of the future... The immediate stimuli are only a central third of the entire experience. Nothing so much intensifies pain as the fear that it will be there on the morrow...Conversely, the realization that the present pain is a single event which will come definitely to a pleasant ending serves greatly to diminish pain. " (Erickson, 1980, Vol 4, p 238).

How Hypnosis Can Be Used To Alter Pain

This is not to deny that actual stimulation of nociceptors in the body will often lead to painful responses. We are just pointing out that experiencing pain requires a lot more than such stimulation. Research by Harold Crasilneck and James Hall (1985, p 102) shows that successful hypnotic amelioration of pain from organic ("physical") origin tends initially to reduce at the same rate as amelioration from chemical analgesics such as morphine (ie the pain relief disappears over the next few hours). Pain of a functional origin (ie unable to be explained by current physical conditions) can immediately be relieved for days, for weeks or even permanently. Milton Erickson himself suffered from chronic organic pain and needed to deal with that pain on a daily basis (Erickson, 1980, Vol 1, p 122). He noted that sleep generally terminated his hypnotic pain relief, so that he awoke needing to re-establish the state. For this reason, most hypnotherapists would recommend teaching clients self-hypnosis to deal with their own organic pain.

Milton Erickson categorized eleven methods of dealing with pain using hypnosis (Erickson, 1980, Vol 4, p 240-245). These categories, which overlap somewhat, are:

1. Directly suggesting that pain disappear.

2. Indirectly suggesting that pain disappear (as Erickson does in Bandler and Grinder's original 1975 study of his work saying, for example on page 37 of that book "You know Joe, a plant is a wonderful thing, and it is so nice, so pleasing just to be able to think about a plant as if it were a man. Would such a plant have nice feelings, a sense of comfort...")
3. Creating amnesia for past experience of the pain.
4. Creating numbness or analgesia in the painful area of the body. In traditional hypnosis this is done by teaching the person to create numbness in their hand and then "transferring" this numbness to the affected body part.
5. Creating a more total anesthesia by having the person imagine they are somewhere far from the pain.
6. Altering sensations of pain into sensations of itching, warmth, coolness, or other less disturbing sensations.
7. Displacing the pain to a more manageable area of the body (eg moving abdominal pain to a hand.
8. Dissociation, eg by having the person imagine that they are across the room observing themselves.
9. Reinterpreting the pain as a feeling of heaviness, pulsation or movement.
10. Distorting time perception so that a prolonged period of pain seems to go by much faster.
11. Suggesting that the pain will reduce itself very gradually; so gradually that the person cannot even monitor whether or not this is happening.

These categories do not cover all the possibilities open to us as NLP Practitioners. The research on the relationship of fear to pain reminds us that using fear diminishing processes such as the NLP phobia cure will often eliminate pain altogether. Similarly, research shows that any methodology which gives the person a sense of self-efficacy (defined as a personal conviction that one can perform needed behaviours in ones life) will reduce pain (Turk and Okifuji, 2002, p 680).

There is some research evidence suggesting that different hypnotic approaches affect different stages in the processing of pain, just as different analgesic drugs do (Donald Price "Hypnotic Analgesia: Psychological and Neural Mechanisms" in Barber, 1996, p 67-84). Firstly, some hypnosis seems to prevent pain being perceived by the conscious mind, while allowing the lower brain to register it. This produces what researchers such as Ernest Hilgard call a "hidden observer" (Hilgard and Hilgard, 1994). In such circumstances, when research subjects are asked to signal nonverbally as to whether they have pain (eg by pressing a button), they signal even though they consciously report that they feel fine. This seems particularly to occur when methods such as dissociation are used to deal with pain. Secondly, methods of pain reduction that directly alter the local sensation, eg by producing numbness, seem to act at the spinal level, preventing pain messages from reaching the brain at all. A third type of technique allows the pain to reach awareness but alters the significance of it emotionally. A person climbing a mountain may experience considerable "pain" but their sense that this is an exciting event overrides the physical sensations.

Case Study One: Curing The Fear Cures The Pain

Carmen came to see me (Libuška) for physiotherapy to deal with pain in both lower legs. Her right ankle had been surgically reconstructed three years previously after a severe sprain of the ligament. She had suffered pain in both legs for the last year or so. While playing netball and softball, she taped her legs, but suffered severe pain after each game. Both legs ached throughout the day, and the pain kept her awake at night. She had previously tried physiotherapy, specific home exercises prescribed by a physiotherapist, and wearing orthotic shoe inserts and taping her legs. All these interventions had very limited success.

When I checked her she was nervous and anxious about her problem. I could feel the swelling over her left ankle, and she reported tenderness in both calves, particularly on her left leg. I treated her using a number of physiotherapy techniques (deep tissue massage, ultrasound, acupuncture, taping and a review of her home exercise program). After four treatments and very little progress, I discussed NLP with her and she was keen to try it.

Carmen is very kinesthetic. She very rarely looked directly into my eyes as we spoke but gesticulated a lot and was very 'in touch' with the feelings in her body. She very quickly revealed a fear that had been with her for many years and was able to access the feelings that went with that very easily. This fear, or phobia, was of climbing anything that looked *even remotely* flimsy. Stairs were the worst as she imagined herself falling through them because she was too heavy. The thought of stairs, ladders, fences, even standing on table tops would all bring her out in a sweat (I was a witness to this as she spoke of it), increase her heart rate and *make her legs feel like jelly*.

I explained to her that there was a possibility that her leg pain was present as a result of her unconscious mind protecting her from this constant fear which was with her every day and limiting many daily activities. With Carmen's permission I decided to used the 'Phobia Cure' (Bolstad, 2002, p 57-64).

Five days later, I did a follow-up session with Carmen. From the moment she left the clinic after the Phobia Cure, she had felt no pain at all in her legs. In fact, they felt so good that the next day she played netball (with no tape) and explained how other members of team commented on her enthusiasm in the game. They told her she was playing just like 'her old self', confident and much more competitive. She experienced absolutely no pain either during or after the game and felt so confident that she played softball the next day. Again, she played better than ever, even sliding into a base as she ran to it and again, feeling no pain.

Carmen almost bounced into the room and as well as hearing from her that she felt 'totally different', she also appeared much more confident. I checked her legs for tenderness and apart from very mild tenderness on palpation of her left Achilles' tendon, there was no other marked tenderness.

She discussed her old fear and said that it was no longer a problem. In fact she was looking forward to climbing up onto the roof (safely she added) to look at the stars with her daughter. This is apparently an activity that her daughter does frequently and has wanted her mother to do with her for a' long time. Her words: "My life has totally changed, this is just magic!"

Case Study Two: Asking The Unconscious Mind To Do The Job

Janet came to see me (Richard) ten months after abdominal surgery. She had suffered severe pain throughout that time, and was taking 60 milligrams of codeine three times a day to deal with it. The pain was more severe in the morning before she took her codeine and whenever she delayed her dosage. A doctor told her "Well, it sounds like neuropathic pain. You'll probably have it for the rest of your life, so you'd better learn to live with it." But on another occasion, a nurse had explained to her that sometimes people just woke up one morning after a few years and found that the pain was gone. A recent MRI scan of her abdomen had showed that, while her original disease was well cleared by the surgery, there was a lot of scar tissue left from the radiation therapy she had subsequently had. This left her convinced that her pain was of organic origin, news that was very distressing.

After clarifying her outcome, I began by explaining to Janet my belief that her body could not only heal scar tissue but also reorganize the nerve signals so that she felt comfortable. I emphasized that her belief was an important prerequisite for success with this change. Janet said she was also aware, as a psychologist herself, that she had gained empathy and understanding from having a clear symptom to tell people about (the pain) and that letting go of the pain meant letting go of this secondary gain.

I invited her to relax and listed up her arm, demonstrating an arm catalepsy (where her arm floated under unconscious control). Initially, she was very skeptical about this demonstration, wondering if her arm was moving at all, but after a few minutes she accepted that it appeared able to move up, down and across without her actually "doing" the movement. I pointed out that in order to do this her unconscious mind had used all the skills it would need to totally heal her pain.

Next I asked her unconscious mind to move one of her fingers to signal "yes" and another of her fingers to signal "no". This ideomotor signaling process enabled me to ask her "unconscious mind" whether it knew that it had the ability to remove the pain, and whether it was acceptable to it to remove the pain. Once it agreed to do this, I told it to begin and to do this slowly enough so that Janet would

believe it was possible. I told Janet story about another client who came to me with pain, and with whom I used the same technique (written up in Bolstad, 2002, page 66-69). I then made a number of suggestions about how her skeptical conscious mind could allow this change to happen. This entire process took just over half an hour.

At the end of the session Janet reported that she had no pain at all. When I followed up two weeks later she reported that she had no pain at all for the next day and a half. "I just felt absolutely wonderful". The pain, she said, had returned at times over the two weeks and she had been able to reduce it using various NLP techniques, including setting the goal of being pain free for the day on her time line. She had reduced her medication to 30 milligrams twice a day and reported the sense that her comfort was, overall, continuing to increase.

Conclusions

Theses two case studies both demonstrate one session treatments using processes taught on most NLP Practitioner or Master Practitioner trainings. They clearly rely on the incredible plasticity of our human experience of pain. In both cases, the clients had good reason to believe that their pain was insoluble; something that would remain the same for the rest of their lives. Using two quite different NLP techniques, we gave them a powerful experience with our presuppositions of the unity of body and mind, of the effect of emotion and memory on the body, and of their own ability to take charge of their lives. These fundamental assumptions, which underlie both of our techniques, are born out by several decades of research on hypnosis in pain relief, and by very recent brain scanning studies of pain relief. Libuška worked with her client less than a month after her initial NLP Practitioner training, demonstrating that these skills can be learned extremely quickly by a confident Practitioner. Both of us have several other experiences of alleviating pain using NLP. We are clear that, while our background as health professionals enables us to make contact with such clients, to asses their medical state, and to congruently recommend NLP, this background is not necessary in order to run the actual processes that created healing in these cases. Our hope is that this article will give some of the research and anecdotal evidence to inspire other NLP Practitioners to achieve these results similarly. On the other hand, this is also an article that other health professionals may find of interest too. What it suggests is little short of a revolution in pain management techniques.

Bibliography

- Bandler, R. and Grinder, J. **Patterns of the Hypnotic Techniques of Milton H. Erickson, M.D. Volume 1** Meta Publications, Cupertino, California, 1975
- Barber, J. ed **Hypnosis And Suggestion In The Treatment Of Pain** W.W. Norton & Co, New York, 1996
- Bolstad, R. **RESOLVE: A New Model Of Therapy** Crown House, Bancyfelin, Wales, 2002
- Crasilneck, H.B. and Hall, J.A. **Clinical Hypnosis** Allyn and Bacon, Boston, 1985
- Erickson, M.H. **The Collected Papers of Milton H. Erickson on Hypnosis** (Volumes 1-4) Irvington, New York, 1980
- Esdaile, J. **Hypnosis in Medicine and Surgery** Julian, New York, 1957
- Hilgard, E.R. and Hilgard, J.R. **Hypnosis in the Relief of Pain** Brunner/Mazel, New York, 1994
- Keefe, F.J., Lumley, M.A., Anderson, T., Lynch, T., Studts, J., & Carson, K.L. "Pain and emotion: New research directions" page 587-607 in Journal of Clinical Psychology, Number 57, 2001

- Porro, C. A., Baraldi, P., Pagnoni, G., Serafini, M., Facchin, P., Maieron, M., and Nichelli, P. "Does anticipation of pain affect cortical nociceptive systems?" page 3206-3214 in the Journal of Neuroscience, Number 22:8, 2002

- Rainville, P., Bushnell, M. C., and Duncan, G. H. "Representation of acute and persistent pain in the human CNS: potential implications for chemical intolerance" page 130-141 in Annual of the New York Academy of Science, 2001

- Tracey I, Ploghaus A, Gati JS, Clare S, Smith S, Menon RS, Matthews PM. "Imaging attentional modulation of pain in the periaqueductal gray in humans" page 2748-2752 in the Journal of Neuroscience, Number 22, 2002

- Turk, D. C. and Okifuji, A. "Psychological factors in chronic pain: evolution and revolution" page 678-690 in the Journal of Consulting and Clinical Psychology, Number 70:3, 2002

Libuška Prochazka is a Physiotherapist and NLP Practitioner. She can be reached at libuska_@hotmail.com

Dr Richard Bolstad is an NLP Master Practitioner and Trainer who has worked with clients individually and as a trainer of groups since 1990. He can be contacted at PO Box 35111, Browns Bay, Auckland, New Zealand, Phone/Fax: +64-9-478-4895 E-mail: learn@transformations.net.nz Website: http://www.transformations.net.nz