

## Perspectives on the biopsychosocial model - part 2: The shopping basket approach.

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### **Introduction – ‘in series’ versus ‘in parallel’ management.**

When I first trained, in the early 1980's, and later, when I did my manual therapy training, a major emphasis of assessment was to find the structural or tissue source of the patient's problem and to then perform one technique at a time to the presumed source. While giving the technique it was important to assess progress by focusing on the pain response to the technique (what's happening to your pain, where is your pain, how does this feel, what's happening now, etc etc...) and then re-examining the pain response and quality of a physical movement (where's the pain now, what's happening to the pain; better, same or worse? etc.). Taking a term from basic electricity wiring diagrams, this process can be seen as an 'in series' one, whereby one procedure at a time had to be proved and performing several techniques at once i.e. 'in-parallel', would muddy the proving process. In much of my training and early work as a manual therapist even giving an exercise before a technique had been proven was frowned upon – if you do many things at once, one thing might be helping, while another may be detrimental - was the logic that was applied. It fitted the approach and seemed a logical way to work.

In the light of currently available research this purist 'in series' style of approach appears incomplete, inefficient and needs to be criticised:-

- It is very passive. It takes control away from the patient and leaves them with little responsibility. It promotes passivity by the patient and the expectation that the clinician will fix the problem.
- It is over-reliant and over-focused on pain response and pain relief. It assumes that instantaneous improvements in pain and pain response to movement are a reliable indicator of recovery (see discussion on pain and pain treatments, part I (Gifford 2001)). Restoration of good quality and less painful movements is not being criticised, so long as the new movements gained can in some way be generalised into the patients active life.
- It focuses on pain, sometimes almost continuously. Therapists trained in this way almost constantly and automatically use 'pain talk' when assessing and managing the patient (a very difficult habit to break - I think its taken me 10 years at least). As argued elsewhere (Gifford 1998), if you focus too often and too much on pain, you may in effect help to memorise it thereby increasing its potential long-term impact on the circuitry of the central nervous system – hence chronic pain.
- It is over-focused on a single physical source (see part I (Gifford 2001)).
- It assumes that we are capable of finding a single 'source' of a problem and it focuses too much attention on individual structures and tissues as being 'pathological', damaged; dysfunctional, imbalanced, weak, vulnerable..... It over-focuses on single or multiple physical impairments found by the clinician. In reality any 'in series' approach like this one is very much linked to the biomedical model of health and disease. Unfortunately, the available evidence suggests that a purely biomedical approach – such as one where physical impairments are a main source of attention, is only very weakly linked to levels of pain and the development of pain disability.

A freer 'In parallel' analysis and management approach allows clinical reasoning to consider multiple factors that may play a role in the following *two* important issues for patients reporting musculoskeletal pain:

1. The generation and maintenance of the patients pain.
2. The generation and maintenance of the patients physical incapacity or disability.

When I learnt them, the approaches outlined above did not separate the two issues. There was little focus on function or disability and an assumption that they would right themselves once the pain went. If the pain did not go or diminish with treatment – the patient either drifted off or was referred back to the Dr. I had nothing left to offer.

If it helps the following are three significant ‘steps forward’ that happened to me.

- The first major step occurred when I realised that a patient’s *disability or incapacity* related to their *performance* – in other words their willingness or confidence to do a movement. For example, I used to examine forward flexion by asking about resting pain then asking the patient to bend forward and report what happened to the pain. Now I might approach forward bending by asking the patient if they are willing to bend forward and if so to show me what they can do or feel confident to do. I am interested in their willingness to move and in their fear of the movement. I also look at the same movement performed from different starting positions in order to find out if the patient is capable of the movement in a more confident way. Performance, and hence range and quality of movement relates to psychological factors, in particular to fear and anxiety.
- The second occurred when I started to see pain and disability as separate issues, but to investigate and manage them *together* and in a much more balanced way. The joy of this approach is that with the majority of sub-acute, pre-chronic and longer term chronic-pain patients there is an ever increasing shift away from an inefficient and frustrating focus on pain reasoning, assessment and relief, towards improved function, improved physical confidence and pain *management*. This was a style of approach that was at once far more rewarding, a lot more predictable and far less pressurised. Life is nothing without physical confidence and physical function – you simply cannot live if you cannot do. Also, the common spin-off to improved performance/physical confidence is a reduction in symptoms, a better acceptance of symptoms and a much improved ability to cope.
- The third, was when I came to feel comfortable with the notion that ‘pain treatments’ are not very effective and frustratingly unpredictable – and that the longer a problem has been around the less effective any form of pain treatment tended to become. When treatments are successful I now reason that their mode of action is most likely to be via altered ‘information processing’ rather than any significant change in the tissues where the treatments are applied. This allows me to feel comfortable as well as confident with the placebo phenomenon and thus with any form of pain relief approach. If it’s helpful – use it!

The biopsychosocial model of health and disease (see Waddell 1998, Roberts 2000) is multidimensional (in parallel) in that it seeks to explore all the factors that may be involved in the pain and the disability related to the patient and their presentation.

The factors are:

1. The social and work environment.
2. The type of behaviour adopted by the patient (illness behaviour)
3. The levels of distress
4. The patients attitudes and beliefs.
5. The pain.

The approach advocated is for physiotherapists to embrace the biopsychosocial model of health and disease and as a result embrace a far broader and multidimensional perspective on all conditions that we see. This ultimately involves dealing with more than one thing at a time, often holding back on ‘hands on’ or passive/active correction of minor impairments and thinking and managing in a very much more ‘in parallel’ style.

For me, the result of the last 10 or so years of integration of pain science into clinical reasoning and the integration of the biopsychosocial model into management and thinking is simply that a major goal for the patient is restoration of *thoughtless fearless movement*. Goal orientated movement is processed differently to pain focused/physically focused movement assessment.

## The shopping basket approach.

Changing thinking, reasoning and management approaches is never easy (see Muncey 2000). Just as established habits of movement and pain behaviour are difficult to change for many long term patients, so too are changes in our own 'habitual' clinical reasoning and treatment approaches.

As already argued, the biopsychosocial model is a model for broader based thinking, it is multidimensional in its approach and seeks answers to pain and disability associated with pain, that are beyond the tissue and pain focused styles that many of us have been schooled in.

The 'shopping basket approach' has evolved from my own analysis of how I think I think and reason with a patient. It may not suit everyone, but hopefully clinicians will find that it is simple and a useful way to see a bigger picture and possibly how a process of change is possible.

Whenever I see a patient, take their history and perform a physical examination, I start gathering information – I put it in the 'shopping basket' and the shopping basket contains seven compartments:-

- Compartment 1: **Biomedical factors**
- Compartment 2: **Psychosocial barriers to recovery**
- Compartment 3: **Disability/functional limitations**
- Compartment 4: **Physical impairments**
- Compartment 5: **Physical fitness – general**
- Compartment 6: **Physical fitness – local**
- Compartment 7: **Pain**

Each compartment will be discussed below and in part 3 of this series a patient example will be presented.

### **Compartment 1: Biomedical factors**

(See figures ....) See also the 'Diagnosis section in part 1 of this series.

This compartment requires therapists to 'think like a Dr *should*' based on the best and most recent information - and be able to answer the following:

- *Is the condition serious and require further investigation or appropriate medical management and intervention?* Therapists need to assess the 'red flags' as written up in Waddell (1998) and Roberts (2000). The importance of therapists knowing how to assess red flags was emphasised in part one of this series.
- *Is the problem a common syndrome?* The reason for wanting to know this is that many presentations seen are clear cut and have well known natural histories. Some standard management protocols and treatments are available for many conditions. For example, frozen shoulder, wry neck, acute low back pain, hip OA, carpal tunnel syndrome etc. Clinicians need to be aware that many of the long established treatment protocols used for the management of these conditions have not necessarily got good support from clinical trials.
- *Is the nervous system competent?* This requires skilled and appropriate neurological testing.
- *Do you feel confident that the tissues that hurt or that may be responsible for the hurt are stable or strong enough to be progressively loaded? What tissue mechanisms are going on?* In part, the red flag assessment may help here. But time since the onset of the problem also tells us how long a healing process will have been going on. If we are to feel confident about getting people with pain moving and fitter we really want to feel confident that the tissues we are concerned about have a reasonable physical strength. Because the amount of pain a patient reports has so influenced therapists for so long the tendency is to hold back on function rather than keep it going or steadily increase from early stages. A great many of the 'pre' chronic patients that I see are held back functionally because of an over-focus on being guided by the pain or on fears of re-damaging the tissues. Overcoming this difficult problem in a way that guides patients to increased function without fear or causing a set-back is a major part of the *graded exposure* approach to functional recovery (patient example, see part 3)
- *What pain mechanisms are operating and can they be considered adaptive/helpful or maladaptive/unhelpful?* The recent integration of pain science into clinical reasoning (Gifford 1997, Gifford & Butler 1997, Butler 1998, Jones et al 2002) allows us to reason the type of pain mechanisms

that may be operating. For example, in an acutely twisted ankle, although considerable neurochemical activity will be taking place in central, motor and sympathetic systems, the predominant cause of the pain is most likely due to intense activity in nociceptors serving the damaged tissues. By contrast, a patient with ongoing pain of 4 or 5 years following a road traffic accident is likely to have heightened sensitivity and reactivity of central nervous system connections and pathways and far less dominant nociceptive mechanisms. Clearly, pain and nociceptive activity in the twisted ankle can be viewed as an 'adaptive' response of the tissues injured – if you like, the tissues, via the nociceptors, are screaming for help from the nervous system – their message reads “help me, do something will you, make him limp or take the weight off me, look after me, send me the paramedics...” and as such this is a necessary and normal part of the injury and its healing. Note that even here, how the person *reacts* to the nociception and subsequent pain could well be maladaptive, for example they may not move the ankle, they may over-focus on the pain, constantly tending to it and rubbing it, they may rest it for days, limp too much and for far too long etc. It is here, very often, that inappropriate (maladaptive!!) advice is often given by clinicians and others. How often have you seen patients with ankle sprains that have been told to rest, take pills and be guided by the pain? Isn't it harder the longer this type of behaviour has been going on? Very often the long immobilised tissues have become hypersensitive and stiff and the patient is very tense and fearful of movement.

In the second case, central activity and high levels of pain are likely to be considerably out of proportion to any remaining tissue abnormality, here the pain mechanism and the pain can be seen as much more maladaptive in nature. For the patient and the clinician it is helpful to understand that hurt does not equate with tissue harm or damage, and this new concept of pain needs to be taken on – by us, by medicine, and by our patients. Patients need to hear a consistent message from health carers, not different messages or conflicting ones. Great care must be taken not to dismiss pain that may be designated 'maladaptive', high levels of pain are disturbing, unpleasant and often make life unbearable. To dismiss chronic, ongoing, high levels of pain as not being 'harmful' or as being of no consequence is totally unreasonable. Recognising and feeling comfortable with maladaptive pain is a key issue and not at all easy – for patients *and clinicians*.

Please also note, even here, people can have chronic maladaptive pain but cope well with it and lead relatively productive and normal lives – even with maladaptive/useless/unhelpful levels of pain, people can lead functionally 'adaptive' lives.

## ***Compartment 2: Psychosocial barriers to recovery***

As already discussed in part 1 (Gifford 2001), psychosocial factors have been shown to be vital considerations in predicting outcome from a musculoskeletal pain problem. Psychosocial factors are stronger predictors of outcome than any individual biomedical measures. For example a patient with a significant disc protrusion will not necessarily have a poor outcome. However, a patient with back pain who believes that any activity that provokes the slightest discomfort should be avoided and as a result rests and avoids activity a great deal, can be predicted to not get going, get back to normal activities or back to work as well as those who confront their problem and try to keep going. How a patient 'ends up' is hugely determined by how they interpret and react to the situation they are in. Everyone tends to cope with their 'pain' situation in different ways and some have more adaptive or maladaptive styles than others.

Clinicians can have a huge impact on how well patients cope and how they recover, most especially early on. Be aware though, the impact can just as easily be negative – for example, erring towards fear of movement and over focus on pain, as positive, whereby functional confidence gradually gains momentum and the patient quickly gets back to normal activity.

Clinicians need to be wary of their own labelling, attitudes and assessment of a patient in terms of things like 'psychogenesis' 'malingering' or 'over-reaction' for example. The plea, whatever you may want to think, is that the patient in front of you is what you have to deal with – their way of coping, their way of behaving, their way of attributing, or blaming or understanding the problem they have. Further, if you understand these things and understand where the patient is coming from, you are more likely to be able to shift them towards a more productive way of thinking and dealing with their situation and hence positively influence their recovery and reactivation processes. Very often these types of 'frustrating' patients have

rarely had a fair hearing, have not been taken seriously or listened to and further dismissal or trivialising of their problem is likely to lead to more disability, more misery and demands for more investigations and treatments.

We also need to be aware that as time goes on patients who have not recovered are likely to have received a great many treatments that have been unsuccessful in fixing or relieving their pain and that failure of treatment causes disappointment and increased feelings of helplessness and hopelessness. Physiotherapists are urged to be more aware that largely passive approaches or approaches that are dominated with correction of one or two physical impairments given high significance, are the sorts of approaches that have come under criticism for being iatrogenic (disease or disability producing).

### **Further reading:**

The assessment of psychosocial barriers is fully presented and discussed in the chapters by Paul Watson and Nick Kendall in:

*Gifford L S (ed) 2000 Topical Issues in Pain 2. Biopsychosocial assessment. Relationships and pain. CNS Press, Falmouth*

Other highly recommended books:

*Main C J, Spanswick C C 2000 Pain Management. An interdisciplinary approach. Churchill Livingstone, Edinburgh*

*Waddell G 1998 The Back Pain Revolution. Churchill Livingstone, Edinburgh*

I believe that the psychosocial aspects of assessment and management are the most challenging area to take on for Physiotherapy. A personal comment, if it is helpful by being persuasive, - is that it has been two things for me – on one hand it has been the most exciting and most rewarding thing to understand and take on in my whole career as a physiotherapist – and on the other it has been the most difficult. Intuitive feel for a patients predicament is one thing, but understanding the *practical* ways in which a patients can be assessed and moved on is what is so highly skilled.

Readers are urged to study the references above and go on courses targeting skills in psychosocial assessment and management of pain using cognitive-behavioural methods. Bear in mind here, just as anywhere, that new fads are often pushed to ‘overkill’ by enthusiastic believers! Look for a comfortable and well balanced presentation if at all possible.

The term ‘yellow flags’ is perhaps the buzz word associated with the psychosocial factors that may be significant barriers to recovery. Briefly, the areas that can be assessed are divided into 7 groups, easily remembered using the headings **A B C D E F & W**.

It is important to bear in mind while conducting this part of our clinical assessment that a key question for the clinician is : ‘What can be done to help this person experience less distress and disability, get back to normal activities quickly and improve their physical confidence?’

## **‘A’ Attitudes and beliefs about pain**

Pain associated with joints and muscles naturally causes guarding and care with movement. Rest and avoidance of movement is reinforced if activity hurts and resting is comfortable. Patients are often fearful of causing more pain or re-damaging or putting their problem back to ‘square-one’. This is particularly so when patients have very high levels of pain or have had high levels of pain associated with the problem. Reducing the pain, if it can effectively be reduced, clearly helps (see pain compartment below), but often significant strides can be made if patients attitudes and beliefs about the nature of their pain or problem can be changed to a more positive one and which is less threatening.

Pain’s primary purpose is to drive a change in behaviour – sometimes it demands rest and care with movement or exertion, but very often it demands that we move – the exact opposite. Staying still can hurt, moving makes you feel better. Being forced to stay completely still, to many, is a form of torture. Pain by

its very nature does not present a consistent message, and if you think about it, in the acute stages this is what the tissues actually need – a bit of take it easy go carefully, a bit of rest and looking after it if there's time and a bit of movement too. We have evolved to heal while still on the move, in nature pain sneaks in when it can and is quickly pushed out when life gets exciting. A major point is that survival dictates that rest has to be minimal, in nature not moving for long is not living for long. In contrast, modern living may give us too much free time – an amount never catered for during evolution! Pain has never had such a good opportunity as now!

There are many dimensions to this 'doing nothing while it heals' mistake. Being unoccupied allows the brain to listen to the ongoing nociception coming in from the tissues and may reinforce it, especially if it is given high significance by the patient. How you interpret your pain dictates how it is processed by your brain. Remember, 'gates' close to sensory information when our attention is focused elsewhere, when we are occupied mentally and physically. An individual that has little to do may well turn their attention towards their body so that even modest nociceptive activity can soon take a well established hold on consciousness in the form of pain. The longer and more continuously we are aware of pain, the more significance we give to pain, the more established and secure become the pain representational pathways within the brain and its consciousness 'circuits' - and the harder they are to shift away. It seems that patients who do not understand their pain, who are fearful of it, who give it high significance, who are fearful of moving and who do not remain mentally and physically occupied from the early stages on, are biologically and psychologically giving pain a better chance of becoming permanently established. The messages for us are simple – find out where the patient is coming from in terms of their pain – ask questions that relate to their perception of the pain, what it means to them about what they should or should not be doing, what they believe is wrong, how they see their future, whether they feel they have any control over their pain and whether they are keen to be actively involved in their own recovery.

Our patients words can be useful:

'Understand your pain, see it as less threatening, start to see that you can move and get stronger even with the pain and your confidence grows, you see out of yourself, you don't notice the pain quite so much .... and then you realise that your pain has lessened! The most difficult part, but most helpful was learning how to pace activity and be gradual with exercises....' (35 year old patient writing about her experience with 6 month old sciatica who had been off work and resting for the whole time and whose pain was gradually getting worse and worse).

'The therapist frightened me, I was told that I had a disc derangement and that if the pain increased in my buttock and thigh I should stop what I was doing. I had difficulty doing anything! I also felt more upset after seeing her because she always looked so concerned about the pain and gave me the impression that my spine was going to breakdown if I bent or moved too quickly or coughed without holding onto myself. It seemed that the only thing that would protect me was if I could tense my stomach when I moved or coughed – it seemed so difficult and I just got tenser and tenser all over the more I tried.....' (45 year old policewoman with one year ongoing back and upper thigh pain)

I hope that clinicians can see that an important part of their 'in-parallel' management is to understand and to then rework patients attitudes and beliefs about their pain if they are found to be unhelpful to recovery of function and restoration of physical confidence.

## **'B' Behaviours**

This is all about what patients do or don't do, how they are responding to their pain, what they are avoiding and having difficulty with and how they react and report their situation.

It is hugely influenced by what they are told to do or not do by Drs., health care practitioners, friends, and magazine articles for example. Clear guidance is essential, but for far too long patients have been told not to do something or to avoid something – when at a future time it may well be possible. Guidance needs changing as time proceeds.

Time and time again I find patients with knee problems relating to modest degenerate changes or medial ligament strains being told not to do breast stroke! Once someone has been told 'never to do' or 'not to do' something by someone with authority – it is very difficult to persuade them that it may be possible again – even if they take it on very gradually. One issue is that there is no evidence that breast stroke causes further knee damage or makes knee pain worse – another is that the only way to find out if it is possible is to gradually try it and find out. Most patients find it is possible. A rare few find that however gradually they try, it still does exacerbate their problem and that there is no way found round it so avoiding it has to be accepted. This example is only of modest consequences, but what if a back pain patient was told never to bend – like many so often are in the early stages of management. Fine to suggest care with some forms of bending to start out in the early stages perhaps, but surely bending confidence should be restored in a graded way at some stage? It is my belief that around 20 years of propaganda based on the disc derangement model and the concept of centralisation of pain relating to dubious biomechanical models for back pain has led to an unprecedented therapist fear of flexion that is passed on to patients (nice research project for someone!). Older therapists and those who have looked into earlier approaches to back pain will be aware that there was a time when the 'Williams' lumbar flexion exercises were the 'in' thing. A re-balancing focused on restoration of confident movement and multiple hypotheses that embrace broader dimensions of reasoning needs a far bigger voice. For example, increased emphasis on thoughts relating to central nervous system processing such as gating related to focus of attention, expectations, fear of pain or damage and changes in tension related to this.

This section brings our attention to how patients behaviour can effect the outcome and to how the management emphasis needs to be on reactivation, patient responsibility and the feeling of having control via active means, good pacing of activity, rest and exercise, and reduced reliance on passive therapy.

## **'C' Compensation issues**

There are a great many clinicians who are quick to label the patient as 'difficult to help' as soon as they find out that they are seeking compensation or that lawyers and disputes are involved. Compensation, disputes, financial hassles or medico-legal hassles certainly do not help, but to label patients quickly as 'difficult' is to slip back into an 'in series' single issue style of thinking. Far better to weigh-up all the other yellow flag factors and put in a bigger context before siding too strongly on a single issue. Far better to enquire as to the effect that the compensation/dispute/financial hassles may be having.

Quite often I have short sessions with patients with ongoing pains called 'hassles that may not be helping'. The word 'hassles' is written in the middle of a piece of paper and the patient is asked to voice all the hassles that relate to their problem – as you jot them down. It's fun, the patients seem to enjoy it and constructive action plans usually evolve out of it. Calling the last consultant or therapist a 'complete bastard' can sometimes be very therapeutic, more especially if the patient can come round to seeing why the clinician might have responded in the way they did. A major goal is to discuss what happened, with the aim of putting the experience into a less tension creating context. In this way the patient can start to learn the skills of re-evaluation of the very things that get to them.

Hassles often create tension, anger, frustration, and patients can spend many hours dwelling on them – a common one is the half a dozen or so words that they remember from the last consultant – 'get on with your life there's nothing wrong with you....' Or the report they've just had for their litigation that virtually denies they have a problem. Having your veracity challenged is very disturbing. Many patients have run out of ways to know how to explain or show the reality of their problem. How can they get well unless they are believed by those who they feel should know better?

Once all the 'hassles that are not helping' have been written on the paper I might ask the question – 'Is there anything you think that could be done to lessen these hassles?'

I get another piece of paper and we list the ones that can be worked on.  
We might get a long list of things.

At the top might be 'responding to the inconsistencies in the last consultants legal report' – he's been putting it off for ages, the solicitor is hassling him and he keeps churning it over in his mind because it made him so angry and he doesn't know how to find good enough words to express his situation or his

feelings. I get him to have a go – I make some suggestions and the process continues until it's done and ticked off the list.

We do one thing at a time and when it gets done it gets ticked off the list, we start with the most annoying and we may just do a little of that until it is eventually done. The patient learns to put a small part of the day aside for 'dealing with hassles'. We both problem solve the hassles and the patient learns how it can be done. Often the patient feels better because they're getting a sense of control, they're seeing the light at the end of the tunnel, they're able to respond to things in a balanced way and get them done before they become a burden.

Some hassles are difficult to deal with. For example, 'the bloke who hit me, who smashed my car up and left me like this, he never said sorry, he didn't even offer to help me.....he's now denying it was his fault!' We can't deal with patients lives, we all have hassles, but we can take one or two, show how they can be better managed and teach the skills to our patients. But we must be careful not to take over.

## **'D' *Diagnosis and treatment Issues***

There is now a good body of evidence to show that what clinicians/medicine says to patients may help to create the conditions that lead to long term incapacity. For example, complicated language and diagnoses, conflicting diagnoses, explanations that create notions of physical weakness and frailty or long term incapacity (you've a spine of a 70 year old.....), dramatic explanations of pathology, and salesman approaches to therapy that raise expectations of a quick and easy cure.

Ask the patient, find out what they have been told, what it means to them, what they think of their previous treatments and management and what their role has been in it all. Ask them what they want from you – what are their expectations? A great many patients merely want some kind of better understanding of their problem and advice about how to deal with it themselves, yet get hooked on regular long term treatments and follow ups quite unnecessarily.

The message here is clear – listen to what the patient has been told, think about its detrimental effects, avoid rubbishing others efforts, try and steer the patient towards more positive confidence building information that makes sense and that fits with a reactivation approach and check what the patient understands from what you have said. Above all, try and shift the patient from being fearful of structure, having the notion that there is a passive fix for their problem, to one that engenders more responsibility and a gradual return of physical confidence. Positive information is one thing that helps a bit, but starting to get a few movements going and gradually building from a sound confident baseline is ultimately the thing that supports the veracity of the information and gets the patient back into life again.

## **'E' *Emotions***

Most people with pain feel fed up. Fed up with the pain and fed up with the negative spin-offs associated with it. The longer a pain goes on the more fed up we tend to become. For some patients merely being fed up and frustrated can develop into increasing levels of distress and sometimes clinical depression. When people feel down they tend to change routines and habits, they may stop socialising sometimes to the point that they feel a bit anxious about mixing with people, they feel less inclined towards physical activities, they lose self esteem, feel hopeless and helpless and sometimes take great deal less care of themselves. It can be very difficult to motivate people to get going and get fitter or become actively involved in their own management when they feel miserable, distressed or depressed. Sometimes people can snap out of the situation they are in, make a big effort and turn a corner, but often they wallow on occasionally dragging themselves up, but soon drifting back into unhealthy routines and behaviours that require little effort.

Change requires a great deal of effort and when you are low effort is very difficult to sustain.

Patients who are significantly distressed or are suffering emotionally are difficult to manage on a one to one basis in Physiotherapy departments. It is no wonder that patients who have a significant degree of distress, have a poorer outcome and are harder to help. If I really think about many of the patients that I have treated in the past who have been really difficult I have to acknowledge that my awareness of their emotional state, there concerns about their situation, their levels of stress, their interest in themselves or

their level of socialising – were things that I had never given hardly a thought to, but if I had I am sure I would have a better insight into why they were so problematic. Many patients have all sorts of hassles and problems going on in their lives, physiotherapists are not trained counsellors or psychologists and it is not our place to deal with these areas. However, many patients with pain are low in spirits because of the pain and the problems that they have encountered as time has gone on. Getting patients involved in taking responsibility, reassuring them about their pain and getting them to tackle and reach a few simple physical goals are the sorts of things that can help them turn a corner, pick themselves up, start to improve their self esteem and confidence and move forward.

## **‘F’ Family**

This is a very interesting area and one which has been discussed in detail in chapters 6 & 7 in *Topical Issues in Pain 2* (Gifford 2000). The reaction of family and friends can often have a big impact on how the individual reacts and feels. Families may become very protective and fearful for the patient – reinforcing a ‘be careful don’t move’ style of coping while at the same time taking away responsibilities and making the patient feel hopeless and useless. It is easy to ask the patient how their family may be reacting to their problem as well as to include them in the rehabilitation process.

## **‘W’ Work**

As discussed above, doing nothing or being unoccupied is detrimental to recovery and ultimately detrimental to an individual's health. It is also detrimental to business, to the economy and the nation's health. It is where pain and disability from pain meet politics. Since the early 1980's the number of people not working due to back pain has risen at an alarming rate. The graphs are everywhere and represent increasing *disability* in Western society from a disorder (back pain) that is just as prevalent as it always has been (Waddell 1998). Back pain has not increased in prevalence, but disability from it has. Increasingly sophisticated physical therapy, surgery and drug therapy has had no impact on the tragic and unnecessary disability curve.

Getting people back to work or keeping them in work if at all possible should be a major goal of physiotherapy. The barriers that prevent people from returning to work come under this ‘W’ category. The patient's work situation needs our understanding, it has several dimensions which are dealt with excellently by Main and Burton ((Main & Burton 2000)). Two will be discussed briefly here to whet the appetite for their chapter!

**Physical factors?:** - clearly if a patient's work involves heavy physical activity with little opportunity for changing conditions, return to work may be more of a problem than if the work was less strenuous or more flexible. However, with regard the ‘physical’ dimension of injury and disability, therapists need to be aware that traditional thinking - that there is a direct relationship between the physical demands of work and the occurrence of injury, - is not well supported by the scientific literature and is quite complicated. While a great many ‘perceive’ that their problem was related to work the evidence seems to suggest that although the back can certainly be injured in various ways, the ‘injury model’ is not able to explain the wide variation in resultant disability. The important issue to grasp is that the *initial* occurrence of back pain may well relate to physical stressors but *recurrence and disability* are mediated more by psychosocial phenomena.

**Work stress – blue flags!:** How an individual *perceives* their work is of such significance it has now been given its own coloured flag – blue (Main & Burton 2000). Patients may be wary of returning to work if they *perceive* that their work is physically demanding and likely to re-injure them. There are many other ‘blue’ factors too, for example, return to work is less likely if patients don't like their work, if they see it as repetitive and boring, if there is little satisfying about it, or it is too pressured with poor rewards and meagre support from managers or colleagues, or if they have little control at work, there may be conflicts with colleagues. Clearly, issues like these, and

ones that many of us will think are obvious, are significant barriers to getting people back to work. Human nature very often follows a simple law of all nature – that is, to get as much as you can for the least amount of effort!

If we are to help in getting people back to work, or help them to stay at work, we need to understand their work situation, how they perceive their work and their relationship with their work colleagues as well as the attitudes and beliefs about the causes and nature of their problem.

### Care with the Yellow flags...

All patients, whether acute or chronic have some yellow flags. The more that are present or the higher the scoring on the 'Yellow flag' questionnaire, the more strength with which a poor outcome can be predicted. Three issues are important here. Firstly, it is unfair to label a patient as being difficult based on one or two positive findings. For example, as already discussed, patients who are involved in litigation or compensation are often blindly labelled as no-hopers and given little credibility. Careful assessment of other areas may well indicate good potential for recovery or a specific management need.

Secondly, the identification of significant yellow flags helps direct management to give attention to the identified barriers/problems. For example, a patient may believe that their pain indicates major structural damage or disease that has not been found. Time taken with history taking and a thorough physical examination accompanied by a reassuring discussion regarding the nature of the injury and pain may make a positive impact here. 'Structural reassurance' however, can only be achieved if therapists know their 'red flags' and have fully assessed them (giving confidence that nothing serious is wrong structurally or pathologically). The development of a high competence in assessment needs to be paralleled by a high competence in *explaining clearly* in terms that the patient understands and which has a useful and positive message. In my opinion this is a hugely under-practised area of pre and post graduate training, and it is so easy to get wrong and very difficult to get just right.

Thirdly, high 'yellow flag' scores should not mean that physiotherapy is inappropriate. However, it may mean that far better outcomes will occur if the patient is managed using a multidisciplinary team approach. The current growth in the number of high quality pain management units utilising cognitive behavioural principles is a very positive step.

Good clinical reasoning is all about picking out all the issues and then being able to prioritise them – dealing with the most important findings and issues first. Quite often significant yellow flags need addressing before any 'physical progress' can be made.

### **Compartment 3: Disability/functional limitations.**

From my own clinical reasoning perspective, I see disability/functional limitations as 'what the patient reports they have difficulty doing, or cannot do, as a result of their pain problem.

Disability may relate to 'activities' – like walking, housework, lifting, sport etc.

Or it may relate to 'inactivities' like sitting, standing or lying.

During the clinical interview I put emphasis on finding out what the patient is doing now compared to what they normally do, what they feel they could do and what they want to get back to (see 'B' Behaviour section above too – there is overlap). The barriers to them getting back to doing those things need assessing and understanding too.

Because I was so schooled in a biomedical/in-series/single tissue style of approach, getting the patient to start working on avoided activities was often left a long way down the management priority list or given little real focus of attention. I wasn't that interested, perhaps it wasn't really intellectually stimulating enough and if I am honest, the thought of function mucking up the pain after all those treatments was very off-putting! I thus didn't really have a clue about how to constructively get the patient back into activity in a way that didn't stir everything up again.

Having now seen a great many patients who are well down the chronic disability pathway it seems quite obvious that in the early stages their disability could have been prevented if earlier activation had occurred. In part 3 of this series the patient example is typical of these patients and clearly demonstrates that a

‘graded exposure’ style of approach to functional confidence is probably the most important and useful tool that good rehabilitative physiotherapists have to offer.

### ***Compartment 4: Impairments***

Impairments are the things that physiotherapists find during the physical examination. Thus, loss of range of joints, muscles, nerves, motion segments, hypermobility, sensitivity to movement or palpation, weaknesses, altered movement patterns, altered reflexes, physical asymmetry, altered anatomy etc.

This is the area that many physiotherapists have become experts in. We love our complicated instability tests, our neurodynamic tests, our muscle tests our joint accessory movement tests and so forth. The problem is that the evidence at this stage is not that supportive for the importance of impairments in relation to pain, function and disability. Far more evidence supports compartments two and three above and these therefore, in most cases, should head the management priority list *before* getting down to the impairment nitty-gritty.

I am not against these skills, but I am concerned that a great many put a great deal of emphasis on them at the expense of other compartments.

On the more positive side however, a good physical examination is a very reassuring thing for the patient, focus on improving impairments is often a useful tool in reactivating the patient and can help alter pain. So long as we are aware of the dangers of physically over-focusing, of the patients potentially negative interpretation of what we uncover and explain and that the explanations associated with tissue abnormalities have weaknesses then we should be comfortable here. Most importantly, if at all possible patients should be given the tools and the responsibility to work on the impairments themselves, rather than being reliant on the therapist.

### ***Compartment 5: Physical fitness – general***

All of us will be aware that being physically fitter feels good. Physically fitter people tend to cope better and manage their lives better than unfit people. Clinicians will know of many patients with ongoing pain who have significantly moved on or improved once they started to get fitter and as a result feel more in control.

Patients with significant pain often get frustrated with the lack of exercise, many become deconditioned and become more moody as a result. Pain and low mood leads to ‘bad behaviours’ – over-indulgence, lack of activity leading to even lower mood, poor sleep, and the emergence of other physical symptoms. Graded physical fitness programmes are a very important part of management at an appropriate stage, or may even be a key component of recovery early on.

It is quite simple to ask patients how fit they feel now compared to before their problem or whether or not they feel as fit as they would like to be. Assessment of function can often be linked with assessment of fitness.

This section will be explored further in part 3 of the series.

### ***Compartment 6: Physical fitness – local.***

The long standing biomedical reasoning models used in physiotherapy have consistently directed us to managing a presumed ‘source’ of the pain or problem. For example, a pain down the leg deemed to be coming from the back resulted in therapy and exercises to the back, even though there may well be quite significant impairments/deconditioning in many of the tissues in the leg as a result of the pain.

This compartment is a plea for clinicians to think beyond the hypothetical sources and causes of the pain and address the tissues affected by the problem too. Patients with referred pain into the leg often have stiff and painful peripheral joints or demonstrate loss of power and endurance in related muscles. Progressively working and moving these tissues, especially in a functional way, may well trigger a biological message of recovery that says ‘we need you, improve your function’ and then the later retort from the nociceptive and nervous system that goes ‘we feel safer, we will decrease our sensitivity now’. A key paradigm might be that a weak organism ‘senses’ its own vulnerability and hence up-regulates levels of sensitivity, whereas a

stronger organism 'senses' less vulnerability and as a result lowers the sensitivity setting. Local fitness management of tissues that either contain the pain, are affected in some way by it, or that may in part influence it, are all worthy of some input.

A significant step forward in improving confidence is to activate the areas the patient feels vulnerable in – and this is often the area that they think the problem is coming from as well as the areas where the pain is felt when there is referred pain.

### **Compartment 7: Pain**

Pain is at the end because it has been at the beginning for so long. It is still important and is of course the primary reason for the patients problems and their suffering. If pain relief was more effective the whole process would be so much easier. While the most recent findings of research urge us to be very cautious in over focusing on pain that does not mean it has to be forgotten. If we can relieve it fine, but if we are making patients dependent on therapy then there is something wrong unless we are merely in this for economic gain.

A major aim is to help to get the patient involved in managing their pain better. This often means adequate pacing of rest and activity; exploring movements and resting postures that may help. As argued earlier, there are a great many pain 'treatments' available – from magnetic and copper bangles to sophisticated medicines and surgeries. What is clear is that there is always something out there that can help a bit and occasionally a lot – which presses us to be open to any possibility that may help. Everyone has their personal style, their favourite techniques and their favourite beliefs. I would simply urge that physiotherapists involved in the management of patients pain see the importance of self management and patient responsibility if at all possible.

The final part of this series takes a patient example using 'graded exposure' principles of management. Hopefully the case will demonstrate many of the issues discussed in this and the previous articles.

#### **Further reading:**

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Gifford L S (ed) 2000 Topical Issues in Pain 2. Biopsychosocial assessment. Relationships and pain. CNS Press, Falmouth

Gifford L (ed) 2002 Topical Issues in Pain 3. Placebo. Sympathetic Nervous System and Pain. Muscles and pain. CNS Press, Falmouth. In Press

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