

## Alternative Treatments For Chronic Pain

All back pains do not require surgery; however, all pains require treatment!

Clinical situations:

- As clinicians we often come across patients presenting repeatedly with Chronic back pain and despite using several medicines like Paracetamol, NSAIDs, mild opiates, strong opiates and combinations of the same, they report of no pain relief, with no organic cause diagnosable.
- There are a certain set of patients who often go shopping for opinions and carry a whole lot of investigations with multiple scans from different centres, with no significant findings. No matter how much you try to convince these patients, they fail to accept or understand that the cause for the pain is in their minds not their body.
- Some chronic pain patients are very demanding and sometimes aggressive; take up lot of your time and are not satisfied with anything you offer. They always have an answer/ counterview for anything you say. They are poor compliers of treatment as well.

How can you manage them?

Somatisation: Chronic Back pain, anxiety and depression

A study done on chronic low back patients entering a functional restoration programme showed 77% of the patients suffered from some lifetime diagnosed psychiatry disorder and 55 % suffered from at least one current psychiatric disorder. The most common of these were depression, substance abuse and anxiety disorder. Around 51 % were diagnosed with a personality disorder. All the prevalence rates were significantly more than the base rate for the general population. A significant number of them had experienced the psychiatric disorder before the onset of chronic pain syndrome.

**Clinicians should be aware of potentially high rates of emotional distress in chronic low back pain and enlist mental health professionals to help maximize treatment outcomes.**

**Indian statistics about low back pain:**

In India, occurrence of low back pain is also alarming; nearly 60% of people in India have significant back pain at some time in their lives. The annual worldwide LBP incidence in adults is around 15% (Anderson et al). Studies have shown that one of the most common cause of visits to physician is low back pain. Both men and women are affected. It is also interesting to note that 30% of adolescents worldwide experience at least one episode of LBP. In addition to physical factors psychosocial factors play an important role in LBP. Psychosocial factors such as

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LBP and make it chronic. Studies report that female patients experience more pain than men, the reason may be their more physical activities in workplaces and greater muscular effort. A common finding of previous studies was that the prevalence of pain was higher in women than in men (prevalence of back pain of 24.3% in women and 20.9% in men)

The most common somatization symptom was "headaches" (41.1%) and most of the depressed patients were "feeling low, depressed, or hopeless" (49.2%). Nearly half of the LBP patients with anxiety symptoms (41.8%) were "feeling nervous and anxious or on edge." (Bener et al 2013)

For chronic low back pain, consistent management protocols include supervised exercises, cognitive behavioural therapy and multidisciplinary treatment. Koes et al 2010

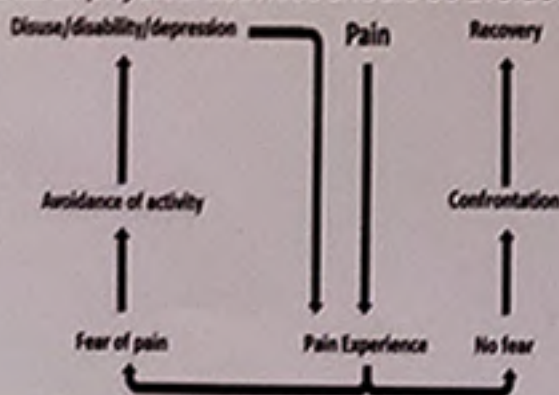
### Assessment and management of chronic functional back pains:

While assessing low back pain it is necessary to assess psychosocial factors and the patient's belief about their condition. The following factors are to be taken into consideration

- **Attitudes/beliefs:** What the patient thinks the problem is? Their attitude towards the pain (positive or negative)? Attitude towards the treatment?
- **Behaviour:** Has the patient changed his behaviour due to the pain? Have they reduced activity or avoided situations and responsibility? Thoughts of catastrophizing and fear needs to be explored?
- **Compensation:** is the patient getting any secondary gain from the illness? (days of work, reduced responsibility, are they claiming any compensation for RTA). Look for work related stress and avoidance
- **Diagnosis and treatment:** Have the diagnosis been communicated clearly in the language that the patient understands? Have they been contradictory explanations given by other doctors, leading to fear and worry?
- **Emotions:** Does the patient have an underlying psychological issue which could be magnifying the pain syndrome?
- **Family:** Families reaction to the illness? Are they being over protective or dismissive and critical?

### Fear avoidance model

Interpreting pain as harmful could lead a patient to avoid activity. The fear avoidance model would suggest that fear of activity can create further development of chronic pain through a cycle of catastrophising, depression and disability. It is generally a misbelief that all physical activities should be avoided to reduce pain.



## WHAT WORKS

### Cognitive Behaviour therapy (CBT)

The goals of CBT for pain are to reduce pain and psychological distress and to improve physical and role function by helping individuals decrease maladaptive behaviors, increase adaptive behaviors, identify and correct maladaptive thoughts and beliefs, and increase self-efficacy for pain management. CBT is the "gold standard" psychological treatment for individuals with a wide range of pain problems. The efficacy of CBT for reducing pain, distress, pain interference with activities, and disability has been established in systematic reviews and meta-analyses.

CBT is a method that can help manage the problem by changing the way the patient thinks about it and the way he/she behaves. It helps them handle the issues in a more positive manner. CBT main focus is that individuals and not the external situation creates experiences for the client and by changing their negative thoughts and behaviours, people change their awareness of pain and develop better coping skills to handle it.



### Ways CBT can help?

- Changes the way people view their pain
- Changes the emotions, thoughts and behaviours related to pain
- Improves coping skills
- Changes the physical response of the brain to pain. Causes changes in the epinephrine and serotonin
- Works on problem solving skills of clients

Pain being an unpleasant subjective experience having physiological and psychological component needs to be addressed keeping this in mind. Psychological factors are a sequence of processes starting with initial awareness of the noxious stimulus, then cognitive processing, appraisal and interpretations that leads to people to act out on their pain (pain behaviour).

During the CBT process the client is taught strategies to handle the different components of stress using a combination of cognitive restructuring, behaviour therapy and relaxation therapy. We also actively encourage the use of biofeedback training.

Potential advantages of technology-assisted CBT include improved access and a reduction of stigma that might prevent some individuals from seeking psychological care. Web-based programs and smartphone or tablet applications also hold great potential for enhancing CBT.

### **Progressive Muscle Relaxation**

Relaxation techniques like progressive muscle relaxation, deep breathing, guided imagery help in treatment of chronic pain. This helps in mainly controlling spasms when a group of muscles go into contraction and fails to relax. It also gives control to the patient to control their anxiety which is a common occurrence when pain starts.

### **Biofeedback**

Biofeedback is one of the most effective tools available for stress management. Biofeedback allows you to see, feel or hear mind/body processes that we normally aren't consciously aware of or able to voluntarily control. Biofeedback is a technique that trains people to improve their health by controlling certain bodily processes that normally happen involuntarily, such as heart rate, blood pressure, muscle tension, and skin temperature.

Electrodes attached to your skin measure these processes and display them on a monitor. With help from a biofeedback therapist, you can learn to change your heart rate or blood pressure, for example. At first you use the monitor to see your progress, but eventually you will be able to achieve success without the monitor or electrodes. Biofeedback is an effective therapy for many conditions which are stress related.

Meta-analyses provide evidence of medium to large effects of biofeedback on improving migraine and tension-type headaches, including the frequency and duration of headaches.

### **Mindfulness**

Mindfulness is a method of becoming more aware of yourself and your environment. You notice your thoughts, feelings, and physical sensations in a non-judgmental way. Mindfulness is always set in the present moment because that is the only time when you can consciously direct your awareness moment by moment.

Dr. Jon Kabat-Zinn, Ph.D., founder of the Stress Reduction Clinic at the University of Massachusetts Medical School, pioneered the use of mindfulness in hospital settings where he worked with people with high blood pressure, pain, psoriasis, anxiety, immune response, and other physical ailments related to stress.

### **Treating co-morbidities**

1 in 2 patients with chronic pain end up having psychiatric co-morbidities. We see a large number of patients who suffer from anxiety and depressive illnesses.

A range of pain interventions, including CBT-based ones, have been delivered with technological assistance, including telephone-delivered treatment, use of interactive voice response technology, video conferencing, and Web based programs. Another meta-analysis (Palermo et al., 2010) suggested that computer-based CBT interventions for chronic pain may be as effective in improving pain as face-to-face delivery of CBT, but more research is needed to verify this.

## Can we predict functional pain patients who require professional help?

### Screening tool

The STarT back Screening tool is a useful and quick guide for health professional to use as a guide to stratify patients into appropriate initial treatment pathways. It contains 9 items and takes less than 2 minutes to complete. It can be immediately scored and the patient risk group identified. The patients are grouped into low, medium or high-risk categories. Based on the risk groups the treatment pathways are identified. (as shown in the figure)

Questions 5-8 in the screening tool tap into the thought process of the patient.

### High risk group

Referral and assessment by mental health professionals; CBT advised to reduce disability and pain, improve psychological functioning and enable the patient to manage ongoing and future episodes.

## The Keele STarT Back Screening Tool

Patient name: \_\_\_\_\_ Date: \_\_\_\_\_

Thinking about the last 2 weeks tick your response to the following questions:

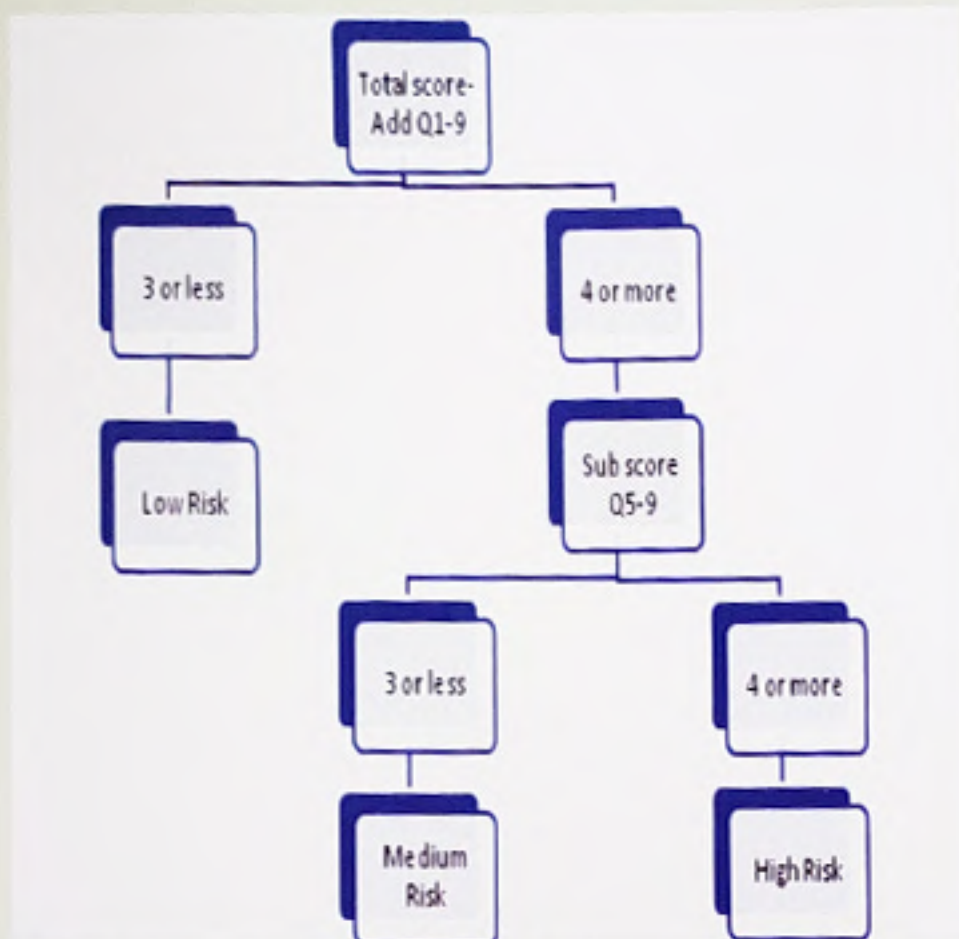
|  | Disagree<br>0            | Agree<br>1               |
|--|--------------------------|--------------------------|
| 1 My back pain has <b>spread down my leg(s)</b> at some time in the last 2 weeks         | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 I have had pain in the <b>shoulder or neck</b> at some time in the last 2 weeks        | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 I have only <b>walked short distances</b> because of my back pain                      | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 In the last 2 weeks, I have <b>dressed more slowly</b> than usual because of back pain | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 It's not really safe for a person with a condition like mine to be physically active   | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 <b>Worrying thoughts</b> have been going through my mind a lot of the time             | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 I feel that <b>my back pain is terrible and it's never going to get any better</b>     | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 In general I have <b>not enjoyed</b> all the things I used to enjoy                    | <input type="checkbox"/> | <input type="checkbox"/> |

9. Overall, how **bothersome** has your back pain been in the **last 2 weeks**?

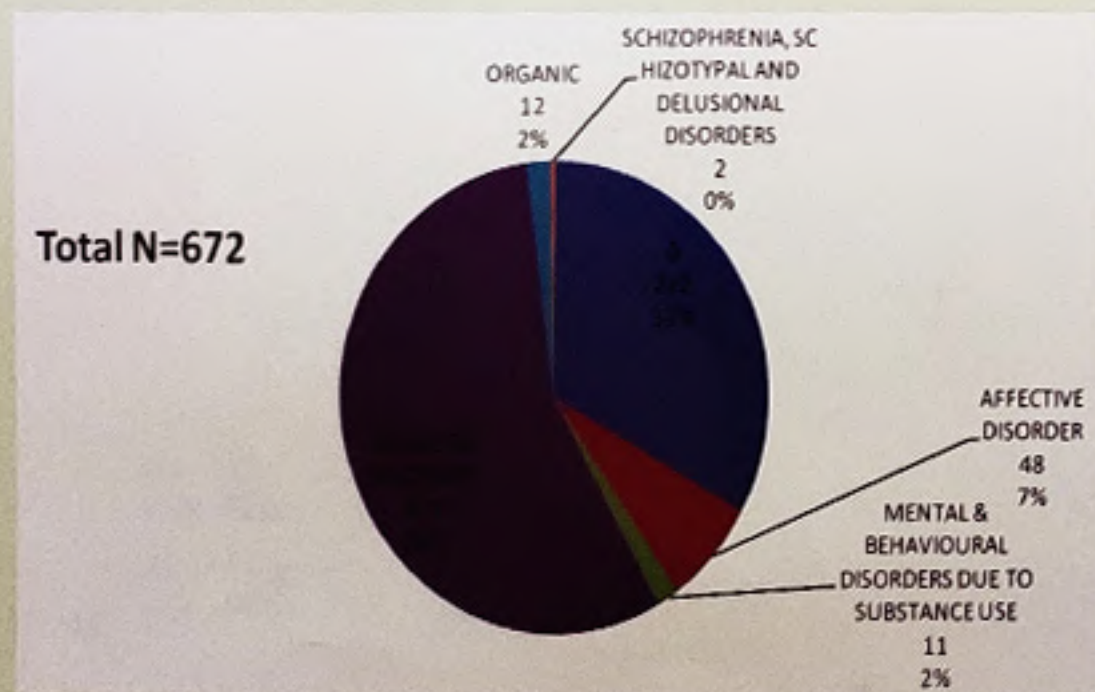
| Not at all               | Slightly                 | Moderately               | Very much                | Extremely                |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 0                        | 0                        | 0                        | 1                        | 1                        |

Total Score (all 9): \_\_\_\_\_ Sub Score (Q5-9): \_\_\_\_\_

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At VITUS Spine we have a multidisciplinary approach to pain. The team includes spinal surgeons, psychiatrists, interventional pain management specialists, physiotherapists and psychologists. We also have a dedicated psychological and behavioural modification unit. The psychological approach taken includes CBT, Biofeedback and using various relaxation techniques to mention a few.



The above pie chart is the statistics of patients with functional disorders presenting with chronic LBP seen at Vitus spine in a year. As shown above 56% of the patients suffered from various forms of Neurotic disorders based on ICD-10 criteria and only 7% suffered from affective disorders. These figures are different when compared to some of the western studies where affective disorders are more prevalent (up to 50%) compared to neurotic studies.

**BEHAVIOURAL AND PSYCHOLOGICAL UNIT (BPU)****Who we are?**

The team includes psychiatrists, psychologists, social workers, physiotherapists, occupational therapists and counselors. The team is medically driven and has an evidence based model.

**What do we offer?**

The Centre will provide an array of quality mental health and substance abuse services to individuals, couples and families. The serviced population includes people of all ages (Children to elderly). A multidisciplinary team will provide care for pain disorders, anxiety disorders, psychosis, substance dependence, OCD and behavioural disorders.

Services provided includes psychopharmacology, various psychotherapies including  
Cognitive Behaviour therapy, Biofeedback,  
Substance abuse programs, Behaviour therapy and marital therapy.

**Can I use this service?**

Any one from children to the elderly with any psychological issues can use this service. The unit is aimed to address different kinds of psychological issues like

- Patients with vascular illness having fear of amputation or how life will be after amputation
- Patients with chronic pain, how to cope with pain and make lifestyle adjustments
- Patients after bereavement of an expectant child or peri-menopausal symptoms of mood swings, depression, anxiety, hot flushes etc can be dealt with.
- Young children with difficulties with focus, hyperactive, learning difficulties, neuropsychological, IQ evaluation can use our service.
- People on cancer treatment, having difficulty coping with life or suffering with depression and anxiety issues



**Dr. Vijayakumar D**  
MBBS DPM DNB CCST(UK)  
Consultant Psychiatrist

We are happy to announce that Dr. Vijay Kumar is joining us at the Behavior and Psychological unit (BPU ) at Vitus Spine, BMJH. He is a senior and experienced psychiatrist who will be working along with Dr. Anand Jayaraman.

**Vitus Spine**  
**Wishes You Happy New Year - 2020**

# The Vitus Spine Team

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