

Key Points

1. Pain is a huge problem in the US, with an estimated healthcare cost of \$70 billion per year
2. Traditionally, treating pain tried to address the organic cause of pain and fix it
3. Recently, the biopsychosocial model of pain has focused on the multi-dynamic aspects of living with chronic pain
4. Comprehensive Pain Programs focus on being able to manage the pain, lessen its impact, and improve functionality and quality of life
5. Current study reviewed all literature over the last ten years which compared CPP programs to traditional medicine
6. Found that CPPs are more effective across a number of measures, such as return to work, restored function, and pain reduction than traditional approaches
7. While CPPs are perceived as expensive, they actually save money in the long term

Definitions

acute - short lasting

chronic pain - commonly defined as pain which lasts more than 3 months

comprehensive pain program (CPP) - a multi-disciplinary approach to pain management in which a team of doctors try to address the various biological, psychological, and social aspects of a patient's pain and focus on restoring function and quality of life

meta-analysis - type of study which uses statistics to combine and summarize the results from a number of different studies

pain - an unpleasant sensory and emotional experience associated with actual or potential tissue damage

Comprehensive Pain Programs Benefit Patients

November 20, 2006 -- An extensive review has found that Comprehensive Pain Programs are more effective, even in terms of cost, than traditional approaches to pain management. The review, which was conducted for the American Pain Society Task Force On Comprehensive Pain Rehabilitation by Dr. Robert Gatchel and Dr. Akiko Okifuji, was published recently in the November issue of the Journal of Pain.

Chronic pain is a large, complex problem in the US, and the statistics are staggering. It is estimated that the total health care costs associated with chronic pain may reach as high as \$70 billion per year. In addition, chronic pain may result in as many as half a million lost work days which drives the annual costs associated with chronic pain to a whopping \$150 billion.

Not surprisingly, this has led to a large number of self-described pain programs and clinics. In fact, according to one published report, in 2001 there were approximately 3,800 pain clinics, programs, centers, and practices in the US treating an estimated 8 million people.

Many of these programs specialize in treating either one type of pain, such as headaches, or in using one type of treatment, such as massage or biofeedback. However, another approach has also recently developed which entails a multi-disciplinary approach to pain management. Referred to by some as Comprehensive Pain Programs (CPP), this approach arises from the biopsychosocial model of pain.

Traditionally, pain has been treated by trying to remove, or alleviate, the underlying organic source of pain, often through medication or surgery. In contrast, the biopsychosocial model of pain looks at pain as a complex, dynamic interaction of physiological, psychological, and social factors which strongly influence the clinical aspect of pain and its overall effect on a person's function and quality of life.

This complex dynamic is what CPPs try to address with a variety of disciplines, such as psychologists, physical therapists, and occupational therapists. In fact, the goal of a CPP is not necessarily to cure the pain by making it go away completely, but to lessen its impact on a person by reducing the emotional stress associated with it and improving function and overall quality of life. In effect, patients are taught how to manage their situation and maximize their capabilities.

One specific type of CPP cited in this study is called functional restoration and is focused on helping people with severe low back pain and resultant disability. According to the authors, such a program entails:

- Formal, repeated quantification of physical deficits to guide, individualize, and monitor physical training progress.
- Psychosocial and socioeconomic assessment to guide, individualize, and monitor disability behavior-oriented interventions and outcomes.
- Multimodal disability management programs using cognitive-behavioral approaches.
- Psychopharmacological interventions for detoxification and psychological management.
- Interdisciplinary, medically directed team approach with formal staffings and frequent team conferences.
- Ongoing outcome assessment using standardized objective outcome criteria.

While this may seem like nothing more than a lot of fancy words, what it actually means is that a team of medical professionals work together to address all aspects of pain management, from counseling to specific ways to overcome disabilities.

To assess the effectiveness of such Comprehensive Pain Programs, the authors reviewed the medical literature for a ten year period looking for studies which compared CPP type programs to more traditional medical approaches to pain. Specifically, they looked only for rigorous studies such as systematic review, meta-analysis, randomized controlled trials, and studies which could clearly show cause and effect. The studies involved two treatment approaches - generally a CPP compared to a conventional approach, and must have collected outcome data on all participants, such as return to work, self-reported pain, and future insurance claims.

The researchers found a significant amount of evidence that overall CPPs are very effective compared to conventional approaches. In fact, one review from 2002 which collectively represented more than 3,000 patients with musculoskeletal pain found that CPPs outperformed other approaches in patients returning to work, reducing medication use, reducing overall pain, and increasing activity (See Table 1).

randomized controlled trial -

rigorous scientific study in which subjects are randomly assigned to either the experimental group which receives a treatment or a control group which does not

cerebellar tonsils - portion of the cerebellum located at the bottom, so named because of their shape

cerebellum - part of the brain located at the bottom of the skull, near the opening to the spinal area; important for muscle control, movement, and balance

cerebrospinal fluid (CSF) - clear liquid in the brain and spinal cord, acts as a shock absorber

Chiari malformation I - condition where the cerebellar tonsils are displaced out of the skull area into the spinal area, causing compression of brain tissue and disruption of CSF flow

decompression surgery - general term used for any of several surgical techniques employed to create more space around a Chiari malformation and to relieve compression

Source

Gatchel RJ, Okifuji A. Evidence-based scientific data documenting the treatment and cost-effectiveness of comprehensive pain programs for chronic nonmalignant pain. J Pain. 2006 Nov;7(11):779-93.

Specifically, 68% of CPP patients were able to return to work, compared to only 32% for traditional approaches. Similarly, 63% of CPP patients were able to reduce pain medication use (often opioids) compared to only 21% who did not participate in a CPP type program.

According to the authors, insurance programs don't like CPPs because of the initial up-front costs associated with a team of medical personnel. However, they demonstrate that in the long run, the improved functionality, reduced medication use, and lower insurance claims actually make CPPs cost-effective in the long run.

For example, one study found that about 50% of patients receiving conventional medical care ended up having surgery within 2 years. However, only 16% of patients going through a Comprehensive Pain Program had surgery within the same time frame.

The authors estimate that the total savings associated with CPPs could be as high as \$8,000 per patient per year. When this is multiplied by the millions of people in chronic pain, it is clear that if they are correct the potential savings for the healthcare system as a whole would be significant.

The evidence is compelling that people in chronic pain, such as Chiari and syringomyelia patients, can benefit from Comprehensive Pain Programs. However, at this time the burden remains on the patient to seek out such programs, and perhaps bear the short-term cost of it as well.

Table 1
CPP vs Traditional Pain Programs

	CPP	Trad.
Return To Work	68%	32%
Pain Reduction	37%	4%
Medicine Reduction	63%	21%
Activity Increase	53%	13%

Notes: Taken from a systematic review of studies which represented over 3,000 patients involved in a CPP vs single mode treatment program (or no treatment)

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