Interdisciplinary Management of Adult Patients with Chronic Pain – When Pills, Potions, & Procedures are Inadequate

Dennis C. Turk, Ph.D.
Department of Anesthesiology & Pain Research and Center for Research on Pain Impact, Measurement, & Effectiveness (C-PRIME)
University of Washington
Treatments Options

- Pharmacological
- Surgical
- Neuroaugmentative (eg, nerve block, spinal cord stimulation)
- Physical modalities (eg, TENS, ultrasound)
- Complementary (eg, acupuncture)
- Psychological
  - Biofeedback
  - Relaxation
  - Hypnosis
  - Cognitive-Behavior Therapy
- Multidisciplinary / Interdisciplinary
The **WRONG** question

“Is Tx A effective?”
The RIGHT Questions

- Is Treatment A more *clinically* effective than Treatment B?
- On what criteria?
- With what adverse effects?
- For how long?
- Initiated when?
- For whom? and
- Is Treatment A more *cost* effective than Treatment B?
What’s the Evidence for Treatment Efficacy?
Treatments for Back Pain

Multinational study (Europe, Israel, US) investigated the benefits of Surgery, Manipulation/traction, Heat and cold, Massage, TENS, Physical Therapy, & Back Schools

**Conclusion**

“Almost **none** of the ... frequently practiced medical interventions for low back pain had **any positive effects** on ... health measures or work resumption.”\(^1\)

\(^1\)Hansson et al. Spine 2001;25:3055-64
Psychological Treatments

The of meta-analyses and systematic reviews of adults with chronic pain suggests that psychological treatments as a whole result in modest benefits in improvement of pain and physical and emotional function.\textsuperscript{1-6} However, evidence for long-term effects is inadequate, and evidence is somewhat contradictory for effects on vocationally relevant outcomes.\textsuperscript{1-4}

Psychological treatment are frequently incorporated within Interdisciplinary Pain Rehabilitation Programs

Outcomes for IPRPs

Back Review Group of the Cochrane Collaboration systematically reviewed the published research on rehabilitation for CLBP and concluded that overall:

“Intensive multidisciplinary biopsychosocial rehabilitation with functional restoration reduces pain and improves function.”

“Multidisciplinary treatment … more effective in reducing pain intensity compared to no treatment/waiting list controls and active treatments (eg, exercise therapy, physiotherapy, and usual care), and sick leave is reduced at short-term follow-up.”

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs.)</td>
<td>44.93</td>
<td>34.5 – 56.0</td>
</tr>
<tr>
<td>Duration of Pain (mos.)</td>
<td>85.43</td>
<td>13 – 756</td>
</tr>
<tr>
<td>% Working</td>
<td>34.17</td>
<td>0 – 100</td>
</tr>
<tr>
<td>% with Litigation/Compensation</td>
<td>20.53 /</td>
<td>0 – 63 /</td>
</tr>
<tr>
<td>% &gt;1 Surgery</td>
<td>54.40</td>
<td>28 – 100</td>
</tr>
<tr>
<td>Mean # Surgeries</td>
<td>1.76</td>
<td>.4 – 4.60</td>
</tr>
<tr>
<td>% Taking Pain Medications</td>
<td>84.54</td>
<td>53 – 100</td>
</tr>
</tbody>
</table>

Despite the recalcitrance of the pain problems of the patients treated at IPRPs, there are a growing number of studies, reviews, and meta-analyzes that support the clinical success of IPRPs\textsuperscript{1-6} but not all.\textsuperscript{7-8}

IPRPs -- What Do They Consist Of?

- IPRP is a generic phrase, there is a great deal of variation in the specific aspects of the treatments offered and the formats.
- Thus, there is no standard IPRP but there are some general characteristics that they share:
  - Several disciplines involved (eg, physician, PT/OT, psychologists)
  - Emphasis is on self-management and activity
  - Physical conditioning and functional improvements
  - Behavioral treatments (eg, coping skills, work to exercise quota vs. pain)
  - Rehabilitation **not** cure
  - Elimination/reduction of opioids
Common Components of Interdisciplinary Pain Rehabilitation Program

- Medication management as needed (preferably with reduction of opioids)
- Physical rehabilitation / Exercise therapy
- Behavioral treatment (eg, relaxation, work to exercise quota vs pain)
- Cognitive restructuring with an emphasis on promotion of self-management, self-efficacy, resourcefulness, and activity versus passivity, reactivity, dependency and hopelessness
- Vocational rehabilitation where indicated
Comments About Interdisciplinary Pain Rehabilitation Programs

- Attention needs to be given to attempting to identify characteristics of responders so that treatment may be prescribed to improve the likely outcomes.

- Long-term follow-ups are required to demonstrate maintenance of benefits over time and generalization of outcomes beyond the clinical context.

- It is important to acknowledge that IPRP do not offer cures -- not going to eliminate all pain for all patients.

- We should not be naïve to assume that the major lifestyle changes required will continue without some long-term continuity of care and reinforcement of skills learned and encouragement for persistence in the face of a chronic disorder.
Typical Pattern of Treatment Response

Negative Behavior/Symptom | Functional limitations

0

Pre-treatment | Post-treatment | Short-term Follow-up | Long-term Follow-up

OOPs!
What Do the Following Have in Common?

- New years’ resolutions
- Smoking cessation
- Substance abuse treatment
- Weight loss
- Diabetes care
- Stroke rehabilitation
- Self-management of chronic pain
- Involve self-management
- Require long-term maintenance
- Poor adherence
- High relapse rates
- Poor rates of maintenance of any initial benefits
How Can We Facilitate Maintenance?

Controlled Processing -- increased attention, thought guide behavior
- When first learn new skills
- Circumstances novel
- Situation demanding

Automatic Processing -- decreased attention, thought guide behavior
- Habitual
- Routine
- Self-reinforcing

Some Personal Examples
- Driving in traffic
- Driving in unfamiliar area
- Driving in snow
- Buckling seat belts
- Flossing teeth
- Weekly weight check
Is Maintenance Enhancement Possible?

Anticipate and be proactive

- Longer treatment?
- Different emphases and proportions of time?
- Transfer into natural environment?
- Booster sessions?
- Treatment matching?
- Take in to consideration patient preference?
- Incorporate patient goals?
- Involve significant others?
- Make use of advanced technologies?
Challenges and Opportunities

- Chronic pain - huge and growing with aging population
- No significant advances in treatment or “cures” in the foreseeable future
- Wide variability in response to existing treatments
- **Maintenance enhancement** of benefits over time and **generalization** of outcomes beyond the clinical context relatively untapped area
- Individualization of strategies to facilitate self-management and promote and reinforce adherence
- Symptoms will persist, long-time, distant monitoring required
- Identification of “slips” and intervene prior to total relapse
Central Questions

- To whom should treatment be provided?
- When should treatment be provided?
- What is the optimal combination of components?
- Who should provide treatment?
- What best format (individual, group, technology adjunctive)?
- Is treatment acceptable to patients (enrollment, engagement, motivation, adherence, attrition)
- How judge successful outcome?
Central Questions

- Is more treatment better? – dose-response [how much optimal, necessary, sufficient], additive, synergistic, iatrogenic [too much diminishes treatment effect; decrease engagement & adherence as requirements increase, negative effects of excessive demands], economic trade-off sufficient?
- Quantity – Quality?
- How much homework/home practice necessary and sufficient?
- Are initial benefits maintained & generalized outside hospital, clinic, clinicians’ office?