PROFESSIONAL PROGRESS: EVIDENCE INTO PHYSICAL THERAPY PRACTICE

Chris Kramer PT, DPT, OCS, FAAOMPT
Bill Koch PT, DPT, OCS, Cert MDT, FAAOMPT

DEVELOPMENT AND OUTCOMES OF A PROGRAM TO TRANSLATE THE EVIDENCE FOR SPINAL MANIPULATION INTO PHYSICAL THERAPY PRACTICE

PARK NICOLLET HEALTH SERVICES
ST. LOUIS PARK, MN
PARK NICOLLET HEALTH SERVICES

- 29 clinics, specialty and hospital locations
- Pioneer ACO organization
- A patient with c/o LBP presents for care every 3 min

EVIDENCE INTO PRACTICE
BACKGROUND: 2006

- Ken Olson presents at U of M
- Goal: Promote TJM with CIs
- Idea planted to put evidence into practice.
Discussions with Admin
• Possible roadblocks: Cost, Time, Clinician buy-in, logistics

Brainstorming
• streamlined for MDs
• quick access to PT
• scheduling
• outcomes

“Physician Champion”
• Ultimately unsuccessful

1. • MD identifies patient
   • “two factor rule” +LR = 7.2 (Fritz BMJ 2005)
2. • Simple scheduling process
3. • Consistent use of TJM by PT
4. • Outcome tracking
FINAL PROGRAM DESIGN

Referrer screens for “Two-Factor Rule”

If met, will indicate “Acute LBP Protocol” on referral

Patient calls CC to schedule

CC asks about Protocol for patients with c/o LBP

Protocol = appt within 48 hours and 3 visits in 2 weeks

IMPLEMENTATION: MDS

- In-person presentations
- Primary Care, Urgent Care, ER
- Current state of LBP management in the US
- Current trend – MDs delaying referral or not referring at all
- Evidence related sub-grouping and TJM in LBP
MD PRESENTATION

- Described the program in detail
- Emphasized the importance of early referral
  - 48 hour access to PT
- Referral form updated with Acute LBP Protocol option:
  - age group of 18–60 years
  - symptom duration <16 days
  - no symptoms below the knee
  - No medical red flags

IMPLEMENTATION: PTS

Three Part Training developed for PTs

1. Didactic portion – ~30 - 60 min
   - Current evidence re: sub-grouping/TBC
   - Description of both the Full CPR and the “Two-Factor Rule”
   - TJM initial 2 visits with all including active exercise (ROM, strength)

---

Table 1 Criteria for identifying the sub-group of patients with low back pain who are likely to respond to early use of spinal manipulation and exercise

<table>
<thead>
<tr>
<th>Factor</th>
<th>Definition of Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of current LBP symptoms</td>
<td>&lt;16 days duration</td>
</tr>
<tr>
<td>Extent of LBP symptoms</td>
<td>Not having symptoms below the knee(s)</td>
</tr>
<tr>
<td>Fear-avoidance beliefs about work</td>
<td>FABQ score &lt;19</td>
</tr>
<tr>
<td>Lumbar spine mobility</td>
<td>At least one lumbar segment judged hypo-mobile</td>
</tr>
<tr>
<td>Hip internal rotation range of motion</td>
<td>At least one hip &gt;30°</td>
</tr>
</tbody>
</table>

Two-factor pragmatic definition of sub-group (both factors must be present)

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</table>

FABQ = Fear-Avoidance Beliefs Questionnaire/Work subscale.
2. Outcome Reporting portion – ~30 min
   - Data collection process
   - Data collection Tools
     - Tracking label
     - Modified ODI
     - FABQ

IMPLEMENTATION: PTS

<table>
<thead>
<tr>
<th>ODI – initial</th>
<th>CGI – initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODI – 3rd</td>
<td>CGI – 3rd</td>
</tr>
<tr>
<td>ODI – 5th</td>
<td>CGI – 5th</td>
</tr>
<tr>
<td>ODI – final</td>
<td>CGI – final</td>
</tr>
</tbody>
</table>

FABQ:
- Pt with h/o LBP requiring treatment? □ Yes □ No
- If yes: □ duration < 6 wks time OR □ duration > 6 wks time
- Check all clinical prediction rule criteria which apply:
  - □ No symptoms distal to the knee □ Symptoms less than 16.5
  - □ Hypomobility of lumbar spine □ FABQ Work Score of < 19
  - □ One hip ≥ 35 degrees Int. rot.
- Please check one of the following regarding d/c:
  - □ Protocol completed 5+ visits
  - □ Protocol completed 3-4 visits
  - □ Therapy completed 1-2 visits
  - □ Patient failed to follow up

3. Intervention Training - ~60-90 min
   - Instruction in TJM
     - Supine lumbopelvic/Sidelying rotation
     - Lumbar ROM exercise (HEP)
   - Therapists free to include any other Rx
   - Follow up visits utilized impairment based interventions
     - included motor control and trunk strengthening exercises
IMPLEMENTATION: SCHEDULING

- Call Center and Reception
  - Scripting developed
  - 30 min Consult scheduled within 48 hrs
  - Schedule 3 visits within 2 weeks
  - Reminded patient to arrive at least 15 min early

OUTCOMES

577 patients included in the knowledge translation program

459 Appropriate inclusion (met 3-factor criteria)
   ↓
361 >1 visit with treatment data available

118 Inappropriate inclusion (did not meet 3-factor criteria)
   ↓
98 >1 visit with treatment data available

311 Received Manipulation (thrust manipulation in first two visits)
50 Did Not Receive Manipulation (no thrust manipulation in first two visits)
70 Received Manipulation (thrust manipulation in first two visits)
28 Did Not Receive Manipulation (no thrust manipulation in first two visits)

Figure 1 Outlines of patients included in the knowledge translation program and categorization based on appropriate inclusion in the program and receiving manipulation.
CO-INTERVENTIONS

<table>
<thead>
<tr>
<th>Intervention category</th>
<th>All patients (n = 459)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROM exercise*</td>
<td>418 (91.1%)</td>
</tr>
<tr>
<td>Directional exercise*</td>
<td>110 (24.0%)</td>
</tr>
<tr>
<td>Stabilization exercise</td>
<td>322 (70.2%)</td>
</tr>
<tr>
<td>Non-thrust manipulation†</td>
<td>243 (52.9%)</td>
</tr>
<tr>
<td>Soft tissue mobilization</td>
<td>130 (28.3%)</td>
</tr>
<tr>
<td>Mechanical traction‡</td>
<td>52 (11.3%)</td>
</tr>
<tr>
<td>Heat</td>
<td>36 (8.3%)</td>
</tr>
<tr>
<td>Cold</td>
<td>110 (24.0%)</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>120 (26.1%)</td>
</tr>
<tr>
<td>Electrical stimulation</td>
<td>124 (27.0%)</td>
</tr>
</tbody>
</table>

- 83% - Thrust
- Passive modalities continue to be widely used

BARRIERS ENCOUNTERED

**Chiropractors**
- DCs – questioned our safety and efficacy

**Physical Therapists**
- PT beliefs/fears regarding thrust manipulation
- PT beliefs/fears regarding Treatment Based Classification
- PT beliefs/fears regarding LBP in a shorter exam time
- Data/outcome collection was not standard practice
BARRIERS ENCOUNTERED

Physicians
- Current MD treatment patterns for acute LBP
- MD beliefs on the role of PT in acute LBP treatment
- Occupational Med referrals – very minimal

Call Center
- Another exception to their standard process
- 48 hour window for initial appt

2009 HEALTHPARTNERS INNOVATION AWARD

Innovation Acute Low Back Pain Protocol

Provider
Park Nicollet/HealthPartners

Problem
Back pain management requires accountability, and we have evidence-based patient care needs.

Innovation
Patients waiting on average about twice as long for physical therapy, under a newly developed acute low back pain protocol. Patients receive physical therapy, and a student exercise program is provided along with an online patient education.

Improving Health
Patients follow a range standard protocol for pain, with a 50% reduction in time of 12%. Patients have undergone additional care with better and more efficient outcomes.

Enhancing Patient Experience
Patients have direct access to the back care patient education program.

Taking care at Affordability
Average number of tasks for low back pain patients dramatically from 3 to 1.3.
Development and outcomes of a program to translate the evidence for spinal manipulation into physical therapy practice

Christopher D. Kramer¹, William H. Koch¹, Julie M. Fritz²

¹Park Nicollet Health Services, USA, ²University of Utah, Intermountain Healthcare, USA

SPECIAL THANKS

Special thanks to the following individuals for support and guidance throughout this project:

Julie Fritz PT, PhD, ATC
Julie Whitman PT, DSc, OCS FAAOMPT
Cameron MacDonald PT, DPT, OCS, FAAOMPT
CHANGING THE CULTURE AND MANAGEMENT OF LBP

OSF HEALTH CARE
PEORIA, IL

CHANGING THE MANAGEMENT OF LBP

- OSF Healthcare – Peoria, IL
- 8 hospital and clinics in IL and MI
- 600 primary care physicians
- 100 PTs
MANAGING LBP - ISSUES

Prior to 2008:
- Variation between hospitals
- Variation between departments
- Variation between clinicians
- Pt scheduled with first available PT/PTA for f/u
- No process for integrating current best evidence
- No process for collecting & measuring pt outcomes

QUALITY INITIATIVES IN PT - 2008

- Started at 1 hospital – St. Joseph Medical Center
- PTs collaborated on practice update
  - Integration of EBP
  - Skills acquisition
  - PTA utilization (Resnik et al 2008)
- Initially through in-services
- Outcome measurement process developed
  - Internal; Oswestry, Fear Avoidance Beliefs, & Pain
WHAT THEY LEARNED...

- Clinicians struggle
  - Keeping up with new research
  - What research is good?
  - How to change/update practice?
  - Accepting change
  - In-services are not enough

- Outcome Measurement process
  - Time consuming
  - Inconsistent reporting
  - Unable to benchmark

- Tremendous value

STRUCTURE TO THE PROCESS

- PTs are specialists with specific interests

- Created clinical specialty teams
  - Spine, ortho/extremity, women's health, neuro, etc
  - Clinicians working together

- Team members
  - Leader
  - Service line champion – “go to person”
  - Team members
  - Business leader

- Triage process for scheduling
<table>
<thead>
<tr>
<th>STANDARDIZATION OF CARE - LBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Treatment based classification adopted</td>
</tr>
<tr>
<td>- Manipulation</td>
</tr>
<tr>
<td>- Specific exercise – direction preference based</td>
</tr>
<tr>
<td>- Strengthening/stabilization</td>
</tr>
<tr>
<td>- Traction</td>
</tr>
<tr>
<td>- Standard evaluation form created</td>
</tr>
<tr>
<td>- Relevant EBP info to direct PT</td>
</tr>
<tr>
<td>- Minimize variance</td>
</tr>
<tr>
<td>- Improve communication between PTs</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>OUTCOME MEASURES PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Contracted with FOTO</td>
</tr>
<tr>
<td>- Computer adaptive testing</td>
</tr>
<tr>
<td>- Functional status measure</td>
</tr>
<tr>
<td>- Integrates FABQ</td>
</tr>
<tr>
<td>- Quarterly reports</td>
</tr>
<tr>
<td>- Hospital, clinic, and clinician specific</td>
</tr>
<tr>
<td>- Benchmarks against database</td>
</tr>
<tr>
<td>- ~2,000 facilities across the US</td>
</tr>
</tbody>
</table>
Regional standardization pilot program
- SJMC & SJJWAMC rehab departments selected

Integrated PTs into specialty teams
- Education
- Mentorship
- Procedural changes

Initiation of FOTO outcome measures

**2010**

- Great, But Did It Matter?

**Outcomes - 2010**

Overall satisfaction (88/120 subjects; 85.64% response rate; 120 FOTO average: 97.73%, for last 12 months)

<table>
<thead>
<tr>
<th>Group</th>
<th>Client</th>
<th>Case Type</th>
<th>Case Type, Impairment</th>
<th>In YS</th>
<th>Out YS</th>
<th>% Change</th>
<th>Predicted %</th>
<th>% Rank</th>
<th>t-Value</th>
<th>t-Value, Pred</th>
</tr>
</thead>
</table>
| 00020 | Chic.
| 00025 | Chic.
| 00030 | Chic.
| 00035 | Chic.
| 00040 | Chic.
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| 00050 | Chic.
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| 00110 | Chic.
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| 00195 | Chic.
| 00200 | Chic.
| 00205 | Chic.
| 00210 | Chic.
| 00215 | Chic.
| 00220 | Chic.
| 00225 | Chic.
| 00230 | Chic.
| 00235 | Chic.
| 00240 | Chic.
| 00245 | Chic.
| 00250 | Chic.
| 00255 | Chic.
| 00260 | Chic.
| 00265 | Chic.
| 00270 | Chic.
| 00275 | Chic.
| 00280 | Chic.
| 00285 | Chic.
| 00290 | Chic.
| 00295 | Chic.
| 00300 | Chic.
| 00305 | Chic.
| 00310 | Chic.
| 00315 | Chic.
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| 00325 | Chic.
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| 00335 | Chic.
| 00340 | Chic.
| 00345 | Chic.
| 00350 | Chic.
| 00355 | Chic.
| 00360 | Chic.
| 00365 | Chic.
| 00370 | Chic.
| 00375 | Chic.
| 00380 | Chic.
| 00385 | Chic.
| 00390 | Chic.
| 00395 | Chic.
| 00400 | Chic.
| 00405 | Chic.
| 00410 | Chic.
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| 00460 | Chic.
| 00465 | Chic.
| 00470 | Chic.
| 00475 | Chic.
| 00480 | Chic.
| 00485 | Chic.
| 00490 | Chic.
| 00495 | Chic.
| 00500 | Chic.
| 00505 | Chic. |
### OUTCOMES – JUNE 2012

#### Overall satisfaction (546/608): 96.32%, 91 patients, 245S, PICS average: 97.81%, for last 12 months

<table>
<thead>
<tr>
<th>Color Key</th>
<th>Green</th>
<th>Better than Predicted</th>
<th>Yellow</th>
<th>Within 95% confidence interval</th>
<th>Red</th>
<th>Outside 95% confidence interval</th>
<th>Blue</th>
<th>Not Enrolled in latest episode</th>
</tr>
</thead>
</table>

#### Summary: 12 Weeks Period Study

<table>
<thead>
<tr>
<th>Group</th>
<th>Surname</th>
<th>Initial</th>
<th>Date</th>
<th>Number of Episodes</th>
<th>Comp Rate %</th>
<th>High %</th>
<th>Expected %</th>
<th>Low %</th>
<th>Rank %</th>
<th>FS Change</th>
<th>Predicted</th>
<th>Reduced</th>
<th>Rank %</th>
<th>Z Value</th>
<th>Predicted</th>
</tr>
</thead>
</table>

#### OUTCOMES – MARCH 2013

#### Overall satisfaction (646/838): 97.32%, 10 patients: 245S, PICS average: 97.79%, for last 12 months

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<th>Z Value</th>
<th>Predicted</th>
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</table>
LBP SPECIFIC MEASURES/RANK

TAKE HOME MESSAGE - OSF

- Standardization reigns (variation is poor)
- Must be a multi-disciplinary effort
- Develop relationships & dedicate resources
- Outcomes a must!
- Use data to help improve care; not punish
- Takes a cultural change for all providers
- Ongoing process
Special thanks to the following individuals for their assistance with the previous information and slides:

Jason Rodeghero PT, PhD, DPT, OCS, FAAOMPT

PRACTICE STANDARDIZATION
AND THE EFFECT ON QUALITY
OF CARE

Intermountain Healthcare
Salt Lake City, UT
Intermountain Physical Therapy

- 10 out-patient orthopedic clinics all under the same roof as primary care physicians in Salt Lake City area.
- No referral incentive
- Self reported pain and disability collected on 95%+ of all patients every visit

Value in Healthcare

Value = \frac{Quality}{Cost}

- Compliance providing evidence based care
- Measurement/reporting/compliance using outcome data (clinical, cost, satisfaction)
- Appropriate payment policy

- Billed charges
- Reimbursed charges
- Patient out-of-pocket
- Indirect costs
VALUE IN HEALTHCARE

Value:
The right care for the right patient at the right time.

“Variation is the enemy of quality”
-Deming

THREATS TO QUALITY OF CARE

- Overuse of Ineffective Treatments
  - Decrease use = Improved Quality

- Under-use of Effective Treatments
  - Increase use = Improved Quality

- Mis-Use of Potentially Effective Treatments
  - Improved decision making = Improved Quality
PRACTICE VARIATION – NECK PAIN

Interventions used for 294 patients with neck pain in 3 clinics in 2004

PRACTICE VARIATION – MANIPULATION & LBP

What would your clinic variation look like?
Examined relationship between adherence and non-adherence to the recommendation for an active treatment approach to acute LBP.

Measured Physical Therapists’ quality indicators:
- Work processes (procedures)
- Clinical Outcomes
- Cost of care

FRITZ 2007 – OVERALL PATIENT IMPROVEMENT

<table>
<thead>
<tr>
<th>Percent</th>
<th>Pain</th>
<th>Disability</th>
<th>Pain</th>
<th>Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adherent</td>
<td>60.5</td>
<td>59.4</td>
<td>38</td>
<td>35.1</td>
</tr>
<tr>
<td>Non-Adherent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FRITZ 2007 – PERCENT WITH A SUCCESSFUL OUTCOME (>50% REDUCTION IN DISABILITY)

![Bar chart showing 64.7% adherent and 36.5% non-adherent]

“PAY FOR PERFORMANCE”

- They identified the problem and sought to change the status quo.
  “If you reward for a specific behavior, the frequency of that behavior increases”
- Quantity (fee for service) versus Quality (pay for performance)
PAY FOR PERFORMANCE

“Payment based on patient outcomes and value makes sense... as long as it is a win/win/win for the patient, the payer, and the provider”

PROBLEM: Providing care that is a value in a fee for service environment may not be a win for the provider

WIN/WIN/LOSE
If 500 patients were sent to PT and received adherent care instead of non-adherent care:
- The cost savings to the payer was $700,000
- BUT... the loss of revenue to our Physical Therapy providers was $85,000

What if the insurance provider paid individual incentives to providers for delivering valued care?
- WIN/WIN/WIN
## INCENTIVE DESIGN AND MEASURES

<table>
<thead>
<tr>
<th>Goal Area</th>
<th>Benchmark</th>
<th>100% GOAL for 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LOW BACK PAIN: Cost Goal</td>
<td>36.6%</td>
<td>Reduce of cases have an active-to-passive ratio &lt; 50% to less than 25%</td>
</tr>
<tr>
<td>2. LOW BACK PAIN Process Goal</td>
<td>81.6%</td>
<td>&gt;90.6% successful outcomes data collection</td>
</tr>
</tbody>
</table>
| 1. Post-OP TKA: Quality Clinical Care | No process established | 1. ROM measured each week  
2. Exercise each visit  
3. No sensory E-stim beyond 2 wks. (all 3 need to be met to be considered a quality episode of care)  
Goal: 100% of patients will receive a quality episode of care by the 4th quarter 2012 |
| 2. Post-OP TKA: Process Goal | 47.4%     | >73.4% successful outcomes data collection                                         |

## LBP OUTCOMES BEFORE INCENTIVE PROGRAM

![Graph showing LBP outcomes before incentive program with an overall mean of 81.6%](image)

**Overall mean = 81.6%**
LBP OUTCOMES AFTER INCENTIVE PROGRAM

KNEE OUTCOMES BEFORE INCENTIVE PROGRAM

Overall mean = 47.4%
KNEE OUTCOMES AFTER INCENTIVE PROGRAM

ACTIVE TO PASSIVE RX RATIO (≤50%) BEFORE INCENTIVE PROGRAM

Overall mean = 36.4%
ACTIVE TO PASSIVE RX RATIO (≤50%) AFTER INCENTIVE PROGRAM

TAKE HOME MESSAGE

WIN/WIN/WIN

“If you reward for a specific behavior, the frequency of that behavior increases”
SPECIAL THANKS

Special thanks to the following individuals for their assistance with the previous information and slides:

Stephen Hunter PT, DPT, OCS

EVIDENCE INTO PRACTICE: FUTURE OPPORTUNITIES
“Early PT use was strongly associated with decreased use of lumbosacral injections, physician office visits for LBP and lumbar surgery, when compared with PT that occurred at later times.”

Mercer online database (employee sponsored health plans)
Data spanned 11/1/07 – 1/31/09
FRITZ 2012

76,967 LBP patients presenting PCP

2,234 (7.0%) utilized PT within 90 days

1,102 (53.%) Early PT

975 (46.9%) Delayed PT

FRITZ 2012 –
SUBSEQUENT HEALTHCARE UTILIZATION

<table>
<thead>
<tr>
<th></th>
<th>All Patients (n=32,070)</th>
<th>Timing of Physical Therapy (n=2,077)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early  (n=1,102)</td>
</tr>
<tr>
<td>Advanced Imaging (MRI or CT)</td>
<td>18.9%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Additional Physician Visits</td>
<td>44.1%</td>
<td>52.6%</td>
</tr>
<tr>
<td>Lumbar Spine Surgery</td>
<td>2.5%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Lumbar Spinal Injections</td>
<td>7.1%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Narcotic Medication Use</td>
<td>49.1%</td>
<td>49.1%</td>
</tr>
</tbody>
</table>
FRITZ 2012 – HEALTHCARE RELATED COSTS

2,184 new consulters to primary care within one integrated healthcare system in Salt Lake City

2004-2008

Examined early utilization variables and subsequent costs over 1-year from index primary care visit.
INITIAL MANAGEMENT STRATEGIES

Management strategies employed within first 14 days:

- Opioid Medication: 39.8%
- Lumbar Radiographs: 23.0%
- Physical Therapy 13.0%
- Advanced Imaging 12.3%

INITIAL MANAGEMENT STRATEGIES AND RISK FOR SUBSEQUENT UTILIZATION

Statistics represent aOR (95% CI) adjusted for age, sex, BMI, prior surgery, specific diagnosis, and other initial management variables.
KEELE-START LBP SCREENING TOOL

- http://www.keele.ac.uk/sbst/

Mobile Applications:
- http://goo.gl/Sv8MdZ
- http://goo.gl/hnybiR

Incorporates psychosocial factors

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

<table>
<thead>
<tr>
<th>Question</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My back pain has spread down my leg(s) at some time in the last 2 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have had pain in the shoulder or neck at some time in the last 2 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have only walked short distances because of my back pain</td>
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<tr>
<td>In the last 2 weeks, I have dressed more slowly than usual because of back pain</td>
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<tr>
<td>It's not really safe for a person with a condition like mine to be physically active</td>
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<tr>
<td>Worrying thoughts have been going through my mind a lot of the time</td>
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<tr>
<td>I find that my back pain is terrible and it's never going to get any better</td>
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<td></td>
</tr>
<tr>
<td>In general I have not enjoyed the things I used to enjoy</td>
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</tbody>
</table>

9. Overall, how much have your back pain been in the last 2 weeks?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very much</th>
<th>Extremely</th>
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</tbody>
</table>

Concept of subgroup & targeting for primary care low back pain

Psychological obstacles to recovery
Enhanced package of care (complex)

Physical obstacles to recovery
Face to face ‘conservative’ treatment

Low risk of chronicity
Advice, reassurance & medication

Targeted treatments
Patients are not all the same
START LBP SCREENING TOOL - SCORING

Control group – PTs best judgment as to if needed continued PT (No STarT info) [n=283]

Intervention group – Stratified via STarT for ongoing Rx decisions [n=568]
- Low risk - single session with education
- Medium risk - Standard PT
- High risk - psychologically informed PT
Outcomes (RMDQ): All Patients

HILL (2011)

Outcomes (RMDQ): Low Risk

HILL (2011)
HILL (2011)

Outcomes (RMDQ): Medium Risk

C

HILL (2011)

Outcomes (RMDQ): High Risk

D
GET INVOLVED!

- Physical Therapists need to be involved with initiatives to better the care of those we serve
- Work hard to assure inclusion of PT in multidisciplinary committees or workgroups that influence your practice
- Spearhead initiatives and work to have leadership roles across the spectrum

QUESTIONS?

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