Using ÖMPQ to Reduce Risk of Prolonged Disability in Workers' Compensation Cases

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Prolonged disability can be harmful to the worker …

- ***Increased risk of not getting back to any job***
- ***Unemployed have higher rates…..***
  - ***Morbidity***
  - ***Mortality***

Can we predict who is at risk for prolonged disability and provide some type of intervention to prevent bad outcomes?

The challenge …

Some claimants with little or no impairment are more pain disabled than claimants with definite impairment

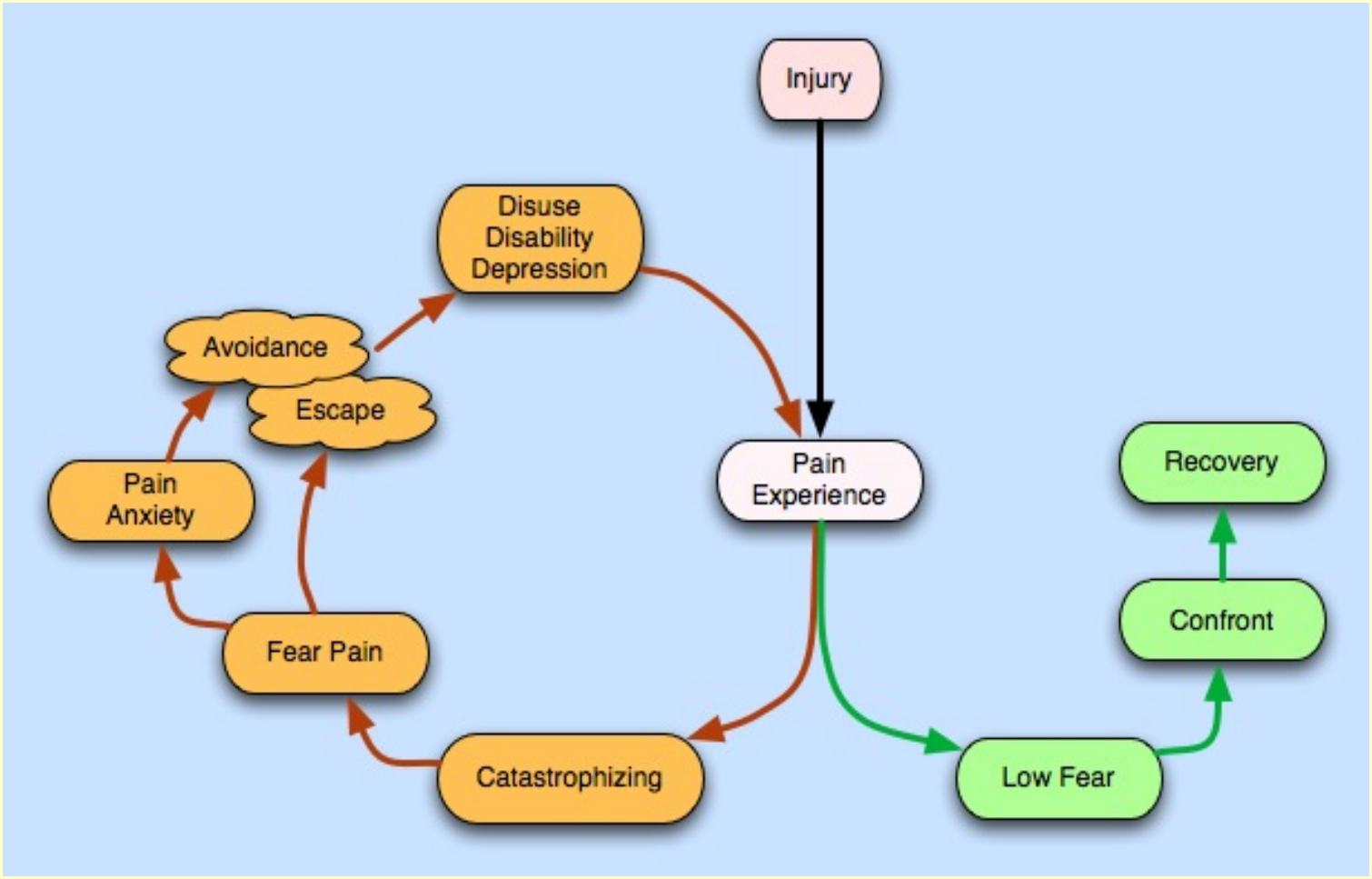
Research suggests …

Psychosocial factors may be more important than biomedical factors in development of chronic pain disability

Pain catastrophizing and fear avoidance research

- ***Pain catastrophizing scale***
  - *Upper tertile 1.7 x more likely to have chronic pain disability at 26 wks vs. lower tertile (Picavet 2002)*
  - *Upper quartile 1.8 x more likely to have chronic pain disability at 26 wks vs. lower quartile (Buer 2002)*
- ***Fear avoidance scale***
  - *Upper tertile 2.6 x more likely to have chronic pain disability at 26 wks vs. lower tertile (Picavet 2002)*
  - *Upper quartile 2.5 x more likely to have reduction in daily activities vs. lower quartile (Buer 2002)*

Fear Avoidance Model



Ref: Vlaeyen 2000; Buer 2002; Waddell 2004; Leeuw 2007

Related references #1

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Related references #3

- Swinkels-Meewisse IE, Roelofs J, Oostendorp RA, Verbeek AL, Vlaeyen JW. Acute low back pain: pain-related fear and pain catastrophizing influence physical performance and perceived disability. *Pain*. 2006a;**120**:36-43.
- Vlaeyen, J. W. and S. J. Linton (2000). "Fear-avoidance and its consequences in chronic musculoskeletal pain: a state of the art." *Pain* **85**(3): 317-32.

Related references #4

- Waddell, G. (2004). The Back Pain Revolution. Edinburgh, Churchill Livingston.
- Additional references at end

Örebro Musculoskeletal Pain Questionnaire

One screening tool for predicting risk of prolonged disability…

- *Applicable for any body part*

ÖMPQ is composite of psychometric tools

- *Number of pain areas*
- *Job dissatisfaction*
- *Anxiety*
- *Depression*
- *Pain catastrophizing*
- *Fear avoidance*

WorkSafeNB Thresholds …

- ***< 99 = low risk prolonged disability***
  - ***predominantly biological pain generator***
- ***> 139 = predominantly psychosocial pain generator***
  - ***140-147 = high risk prolonged disability***
  - ***> 147 = very high risk prolonged disability***

Related references #1

- Linton SJ, Boersma K. Early identification of patients at risk of developing a persistent back problem: the predictive validity of the Orebro Musculoskeletal Pain Questionnaire. *Clin J Pain*. 2003;**19**:80-86.
- Margison DA, French DJ. Predicting treatment failure in the subacute injury phase using the Örebro Musculoskeletal Pain Questionnaire: an observational prospective study in a workers' compensation system. *J Occup Environ Med*. 2007;**49**:59-67.

Related references #2

- Hockings RL, McAuley JH, Maher CG. A systematic review of the predictive ability of the Orebro Musculoskeletal Pain Questionnaire. *Spine*. 2008;**33**:E494-500.
- Westman A, Linton SJ, Ohrvik J, Wahlén P, Leppert J. Do psychosocial factors predict disability and health at a 3-year follow-up for patients with non-acute musculoskeletal pain? A validation of the Örebro Musculoskeletal Pain Screening Questionnaire. *European journal of pain (London, England)*. 2008;**12**:641-649

Case management experience prior to Mar. 2008

Baseline: New STI Claims 2006 – Claim profiles by ÖMPQ Group

	ÖMPQ Score			
	< 99	99-139	> 139	> 147
Sample size	71 (27%)	146 (57%)	38 (16%)	22 (10%)
% duration > 26 wks	35%	47%	74%	77%
% working at 2 yrs	83%	77%	58%	50%
% work restriction at 2 yrs	8%	18%	24%	27%
Avg. claim duration(wks) ¶	31.9	37	46.6	54.6

¶ claims tracked for 2 years

Comparing interventions in 2006 claims when on benefits beyond week 26

	Group 1: Score < 99	Group 2: Score > 139
Physiotherapy	28%	37%
Imaging	19%	29%
Specialist consult	10%	24%
Acupuncture	1%	8%
Injections (blocks)	3%	16%
Surgery	7%	13%
Vocational rehab	6%	11%

Can we improve outcomes for claimants with ÖMPQ scores > 139?

WorkSafeNB's High Risk Management Pilot: Mar 1 2008 to Feb 28 2009

Case Management Protocols

- *If STI claim on benefits at 4 weeks post-injury or recurrence, refer client to physiotherapy clinic to obtain ÖMPQ score*
- *Case Assigned 4 weeks post-disablement*

If score > 139

- ***Face-to-face client meeting within 3 weeks post-assignment***

  Discuss recovery expectations, response to treatment, pending tests/ medical appointments, work accommodation. Set expectations. Identify barriers to RTW. Interview script used to measure motivation.

Case Management Protocols

- ***Contact Employer within 2 weeks post-assignment***

  Discuss job demands & status, accommodation

- ***Contact Service Provider within 2 weeks post-assignment***

  Discuss treatment progress & needs; RTW readiness, RTW options & the presence of psychosocial issues

If high risk for prolonged disability is validated:

- ***Plan interventions to address barriers such as:***

  Concerns about recovery, lack of treatment progress, pending tests/ specialists, complications, employment or personal issues.

Case Management Protocols

- ***Case management Team meeting by week 4-6 post-assignment***

  How to address remaining barriers, set timelines for action/follow-up.

- ***Score 140-147***

  Active Unidisciplinary functional rehab (primary physio or work conditioning) + basic cognitive-behavioural intervention(s)

- ***If score > 147 & no planned RTW***

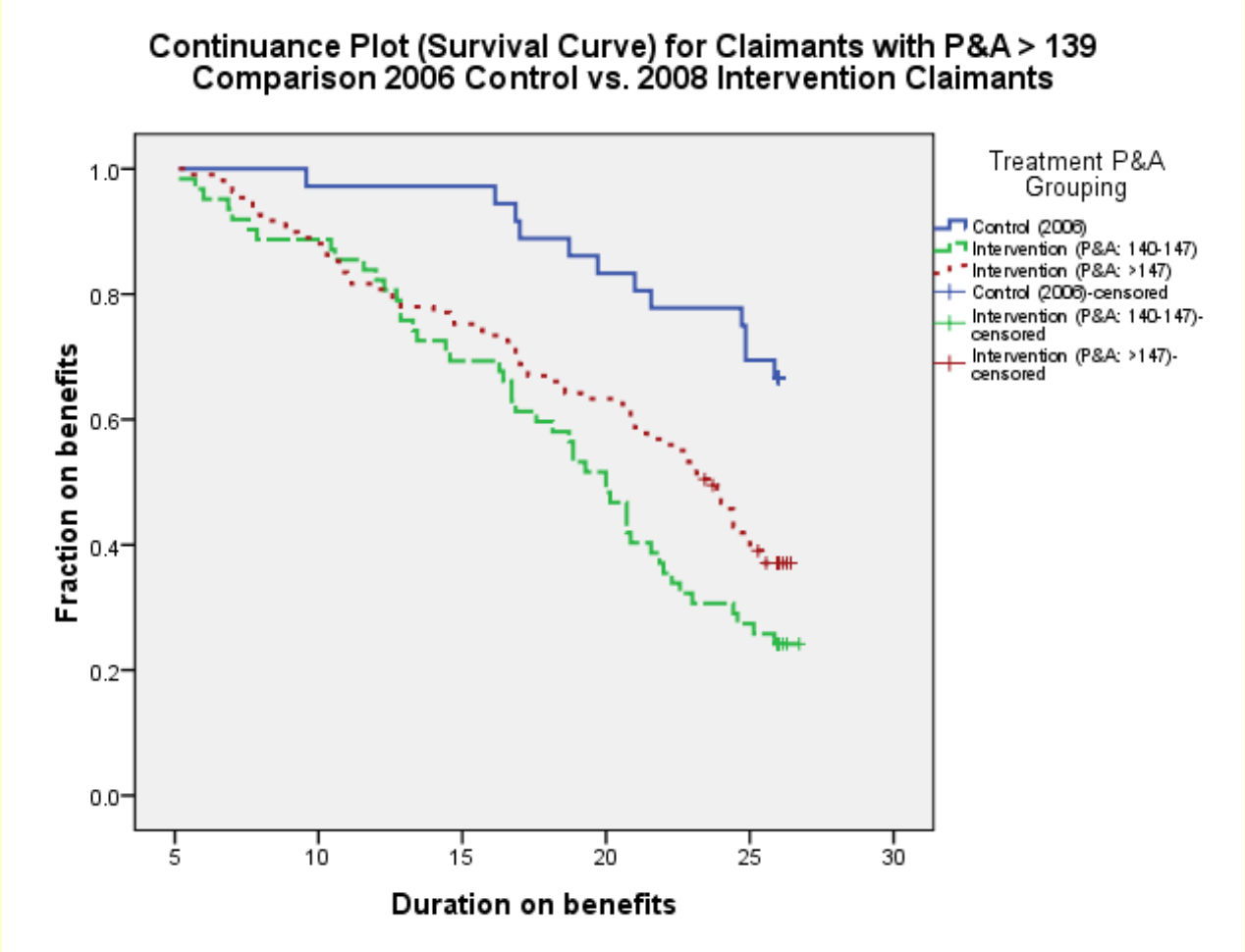
  Start Multidisciplinary functional restoration with cognitive-behavioural therapy and work simulation

At 26 weeks, both intervention groups showed clinically significant improvement …

	Control Group (2006)	Intervention Group (2008-2009)		
	ÖMPQ: > 139	ÖMPQ: 140-147	ÖMPQ: > 147	P Value
Sample size	36	62	109	
% Claims closed at 26 weeks	33%	76%	62%	< 0.001
% Working at 26 weeks	17%	68%	39%	< 0.001
Avg. claim duration to 26 weeks	24.0 wks	18.7 wks	20.2 wks	< 0.001

¶ based on intention to treat

Comparison of continuance (survival) plots at 26 weeks



Case management validation …

- ***Not at risk for prolonged disability – 7%***
  - ***Expected 10% false +ve rate***
- ***High risk => very high risk – 31%***
- ***Very high risk => high risk – 39%***

Conclusions

- ***ÖMPQ can be used to triage claimants into high /very high risk for prolonged disability***
- ***ÖMPQ is a <u>screening tool</u> for predicting prolonged disability***
  - ***Case Manager needs to validate if the case is at risk of prolonged disability***

Conclusions

- ***Early Case Manager intervention to address psychosocial issues reduced disability duration in claimants at high/very high risk***
  - ***Involves some form of cognitive-behavioural intervention, depending on the nature of the issue(s)***

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