

Preventing long-term disability: Employers play a key role

	Red flags	
	Orange flags	
	Yellow flags	
	Blue Flags	
	Black flags	

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Pain in the workplace

- Close to 1 in 5 Australians experience some form of persisting pain
- Injury is a major cause
- Persisting pain is a risk for poor RTW outcomes
- Even after RTW, persisting pain is a risk for productivity
- But only a small proportion of injured workers are a problem (15/85)
- We can identify most of those at risk of poor outcomes
- The risks involve 4 key stakeholders: the worker; the workplace, the healthcare provider, and the insurer
- This means modifying the risk is likely to need action in these areas
- This is a challenge to many operating practices

Time-based classification of pain

- **Acute:** short-term; usually due to nociception (tissue damage); resolves with healing.
- In back pain,

Acute	= < 4 wks
Sub-acute	= 4-12 weeks
Chronic	= > 12 weeks
- **Chronic pain:** pain lasting > 3-6 months
- **Persisting pain** (NHMRC: acute pain guidelines)

Despite all the advances in medical technology....

- Complete relief of symptoms (pain) often an unrealistic goal once pain becomes chronic
- More realistic to seek ways to limit disability despite pain
- That is, manage pain to limit its impact

Goucke CR. The management of persistent pain. *Med J Aust* 2003; 178(9): 444-447.

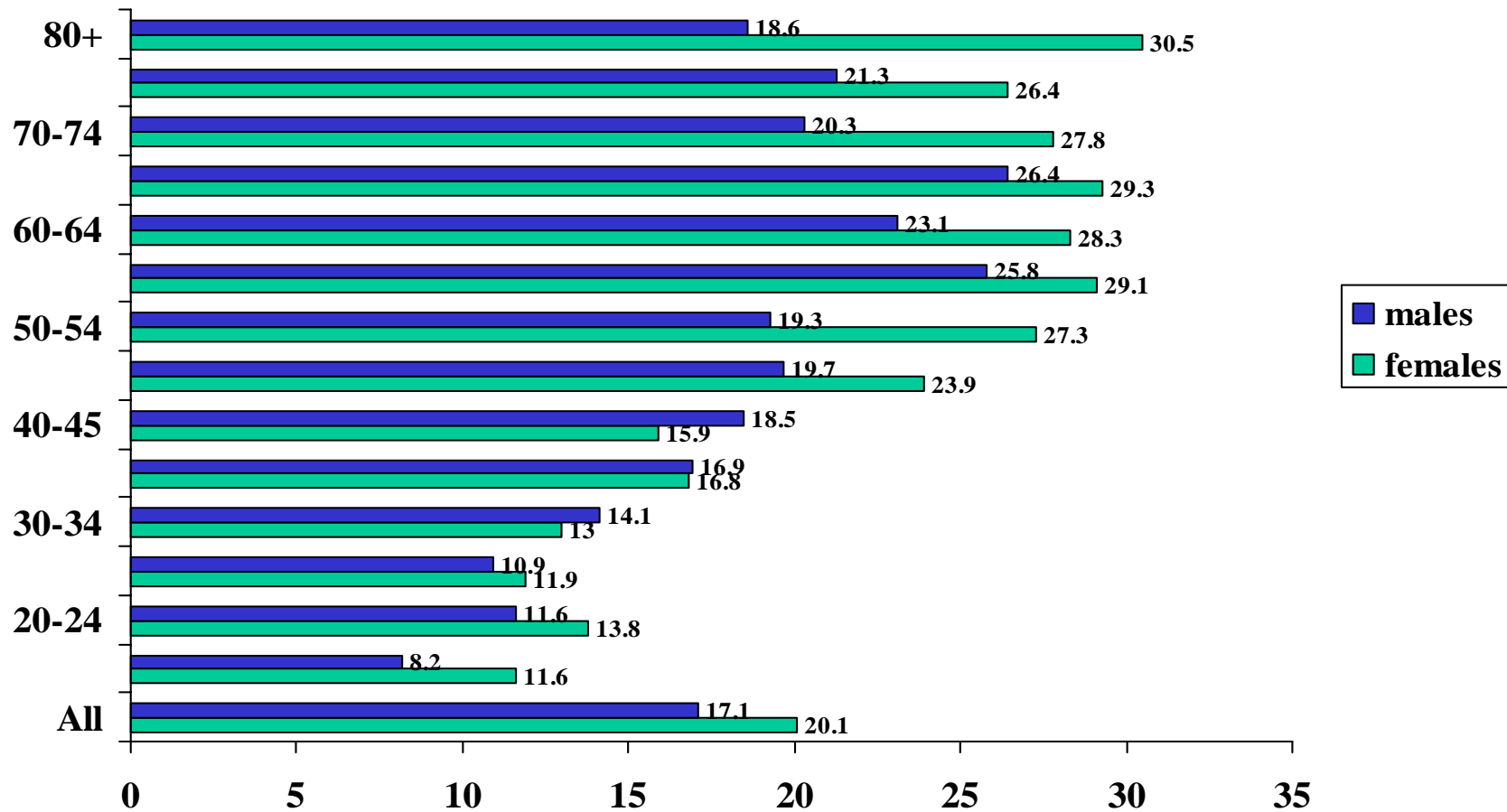
Loeser JD. Mitigating the dangers of pursuing cure. In: Cohen MJM, Campbell JN, eds. *Pain Treatment Centers at a Crossroads: A Practical and Conceptual Reappraisal*. Seattle, IASP Press, 1996:101-108.

How common is the problem of chronic pain?

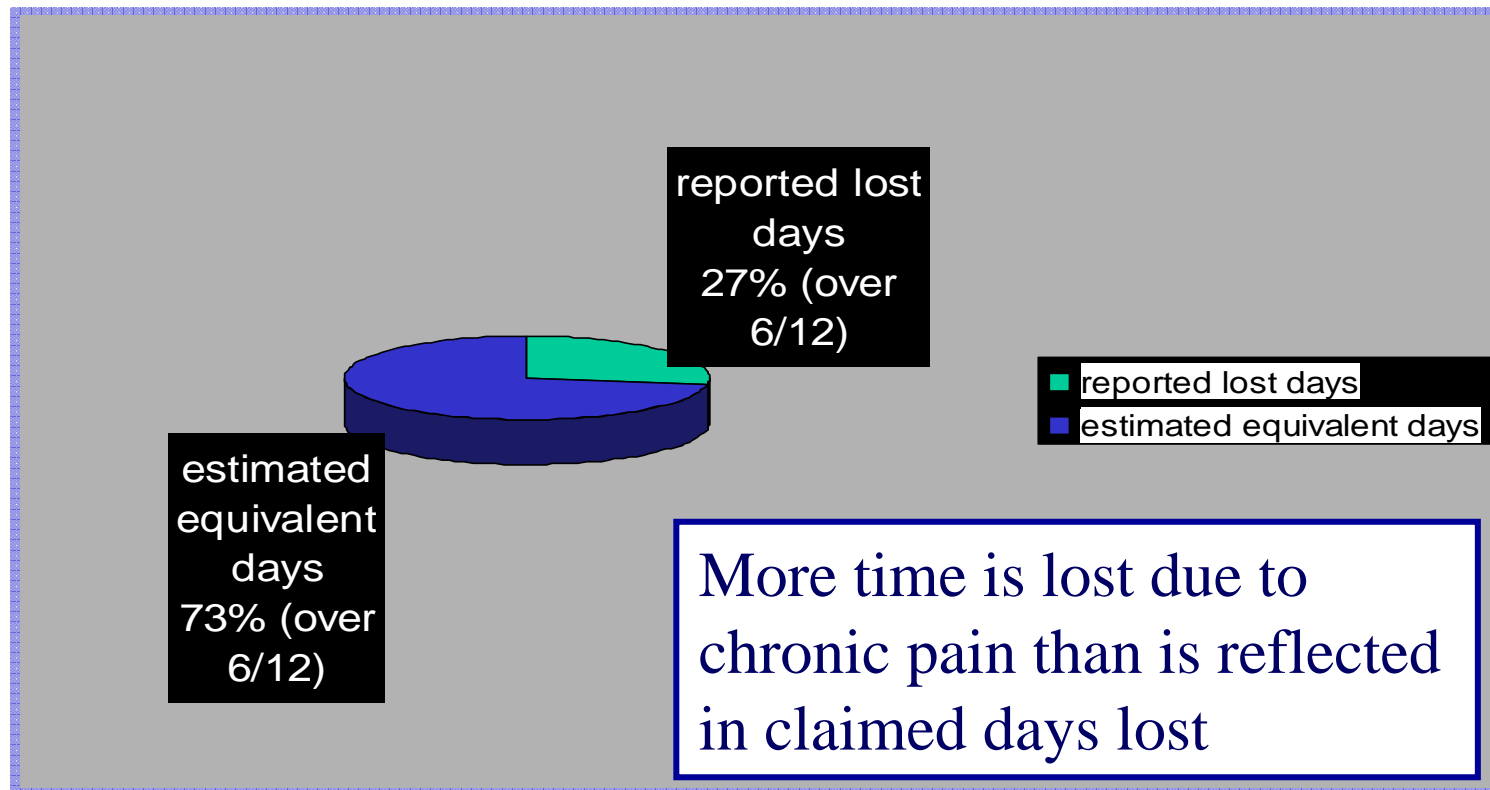
- Blyth et al. (2001) Pain, 89, 127-134.
- 17,000 interviewed (across NSW)
- **Chronic pain (>3/12) prevalence (NSW):**
 - 17.1% Males
 - 20.1% Females
- Interference in activities reported by ~ 60%

Persistent pain by age and sex

NSW 1997 Health Survey (Blyth et al., 2001)



Even when RTW, many under-perform due to persisting pain: lost work days due to chronic pain



Blyth et al., *Pain*, 2005

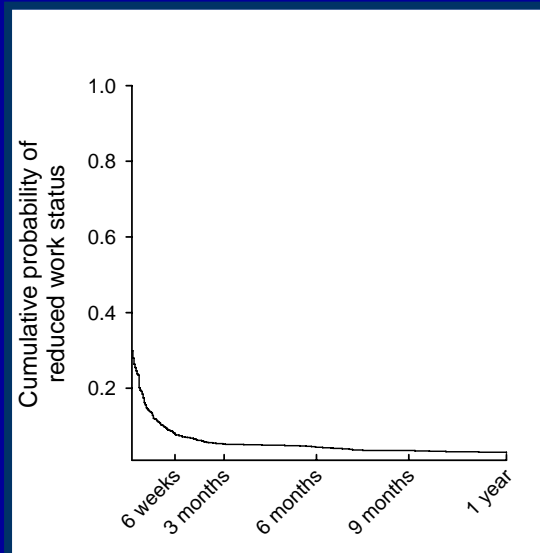
What happens after a soft tissue injury? Local evidence: Sydney primary care study

- Inception cohort study of 973 patients presenting to primary care with LBP < 2 weeks duration
- Follow up at 6 weeks, 3 months, and 12 months (< 3% dropout)
- Sampled three dimensions of recovery: return to work, interference with function due to pain, and pain status

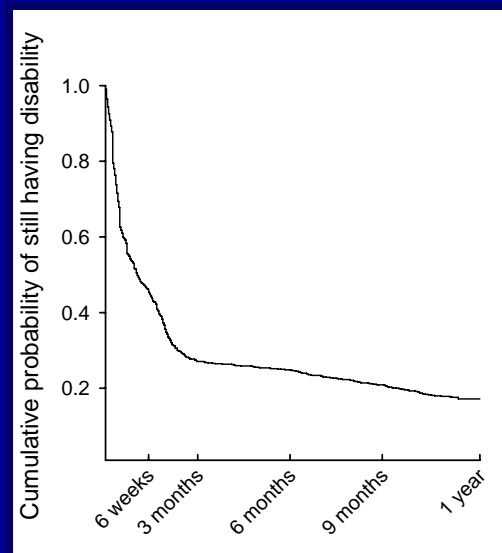
Henschke et al. BMJ (2008))

Three pictures of recovery from LBP

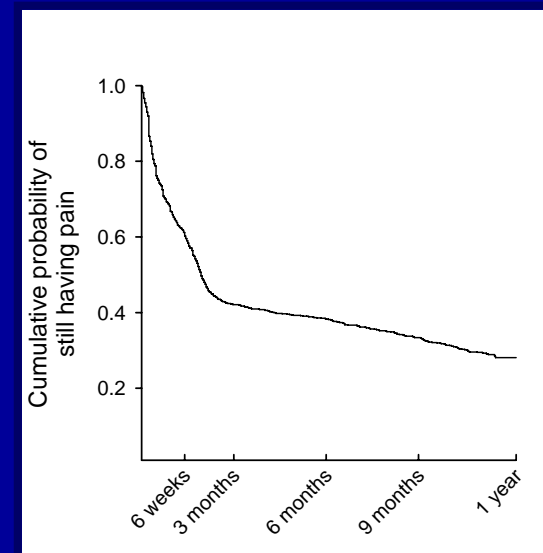
(Henschke et al., 2008)



Normal work status



No disability



Pain-free

Who gets disabled and why?

- Many claim they can ‘smell them’
- Evidence lacking for this claim
- More evidence for psychological and environmental factors than medical

For example

- Caragee et al. (2005): In LBP patients with both structural and psychosocial risk factors, **serious disability was best predicted by baseline psychosocial variables.**
- MRI and discography findings at baseline had **no association** with disability or future medical care.

(The Spine Journal 5 (2005) 24–35)

Evidence overall?

Literature reviews of prospective studies from 2000

- Linton (2000)
- Truchon and Fillion (2000)
- Crook et al. (2002)
- Pincus et al. (2002)
- Waddell et al (2003)
- Sullivan et al (2005)

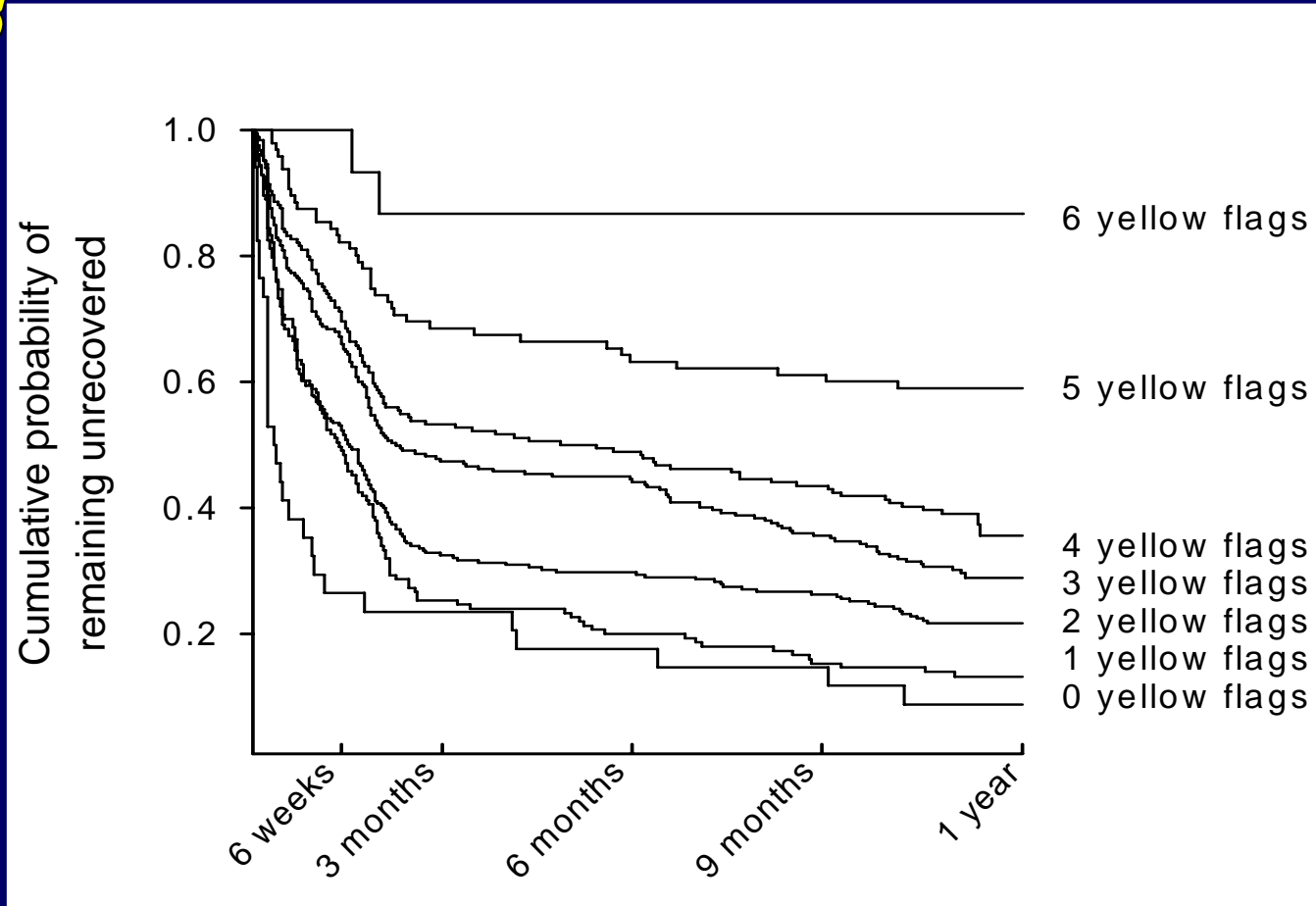
General conclusions:

Psychological (personal) and environmental (work) factors are stronger predictors than physical/medical findings for RTW and long-term disability

Which factors?

Biological	Red flags	<ul style="list-style-type: none"> • Serious pathology
Psychological disorders	Orange flags	<ul style="list-style-type: none"> • Major depression • PTSD
Psychological responses and social interactions	Yellow flags	<ul style="list-style-type: none"> • Unhelpful beliefs about pain/injury • Unhelpful (eg. avoidant) coping strategies (eg. resting) • Emotional distress • Passive role in recovery • Overly solicitous carers
Perceptions of workplace	Blue flags	<ul style="list-style-type: none"> • <u>Perceived</u> low social support at wk • <u>Perceived</u> unpleasant work • Low job satisfaction • <u>Perception</u> of excessive demands
Environmental (systemic)	Black flags	<ul style="list-style-type: none"> • Compensation Legislation • Nature of work

Risks of poor recovery rise with more yellow flags



Courtesy of Henschke & Maher, 2008

Compensation: a risk factor for worse outcomes

- Compensation status is associated with poor outcome after surgery (Meta-analysis by Harris et al.. JAMA, April 6, 2005; 293: 1644-52).
- MVA victims with compensation claims in Victoria had worse health outcomes than those without compensation claims. (Gabbe et al MJA, 2007)
- In those with chronic pain, compensation status is a significant risk factor for greater disability (3.5 times more likely) (Blyth et al. Pain 2003)

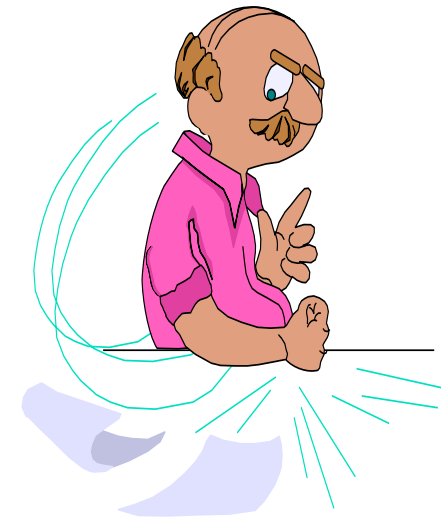
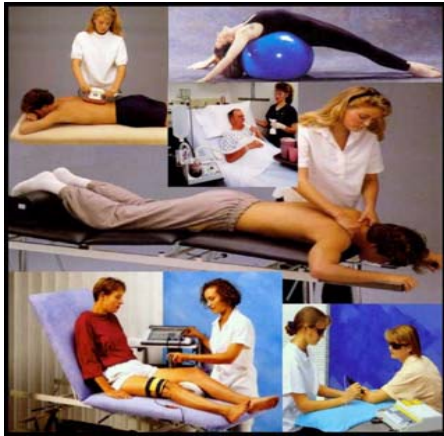
What all this means

- Outcome of treatment is influenced by the context in which it occurs
- Most people who develop chronic pain will have to learn to live with it
- Minimising disability in injured workers with persisting pain requires input from 4 key stakeholders:
 - **Injured worker**
 - **Treatment provider**
 - **Workplace**
 - **Insurance company**

Interventions that target worker alone and ignore workplace?

- McCluskey et al. (Occup Med 2006; 56:237–242)
- A guideline-based psychosocial intervention for the early management of musculoskeletal disorders
- Effectively undermined
- By organizational obstacles, such as policies and procedures at the workplace (Black flags).

Implications for injury management



Intervening in psychosocial aspects before chronicity sets in (controlled studies from 2000)

Study	Intervention & Outcomes (bold)	Comment
Van den Hout et al. 2003	Graded activities (behavioural principles) + problem-solving training > Graded activities + education (on longer-term work status)	
Åsenlöf et al., 2005	Individually-tailored cbt + exercises > exercises (on disability, pain fear of movement)	
Linton & Andersson, 2000	6 x 2-hr grp sessions with Clin. Psychologist + Rehab > Information + Rehab (on lost time from work)	
Marhold et al., 2001	Same treatment as above > for sub-acute lbp than chronic lbp. (RTW outcome)	
Linton et al., 2005	CBT grp = CBT + exercise grp >> minimal tmt grp (examination, reassurance, advice on activities). (lost time)	
Verbeek et al., 2002	Many similarities in content of control grp and treatment grp. No difference between grps on disability & RTW outcome (both improved).	Low distress in both groups
Jelema et al., 2005	Psychosocial intervention = standard care (both by GP only) (on disability)	Low level of psychosocial risk factors at baseline
Hlobil et al., 2005	Graded activity grp > usual care. (GPs consistency with program encouraged): Earlier RTW	
Hay et al., 2005	CBT (pain management) and manual therapy (+ home exercise) achieved similar results (disability)	Average distress low initially so difficult to show much change.
Sullivan et al., 2006	Psychosocial risk factors reduced in both groups (Physio + CBT vs Physio only), but catastrophizing reduced more in combined group. Combined group had better RTW 4-wks after end of treatment.	
Loisel et al., 2002	All interventions achieved gains, but comprehensive 'Sherbrooke' model (combined occupational and clinical interventions) had fewer days on benefits. (RTW)	
Gatchel, et al . 2003	'high risk' acute patients in functional restoration group (CBT approach) >a treatment-as-usual group. (on indices of disability; work, healthcare utilization, medication use and self-reported pain).	
Kant et al. 2008	Physician intervention that targeted identified specific individual concerns + problem-focused counselling when needed) > standard care (on RTW outcomes)	
Damush et al., 2003	Brief group program, with telephone follow-up, aimed at increased function, health status > usual care	

Implications?

- When psychosocial risk factors low: usual care is sufficient
- When psychosocial risk factors high: interventions targeting these aspects often more effective than usual care

(Jallema et al. Pain 2006)

Systematic review of published studies of workplace interventions (Frache et al. JOR, 2005)

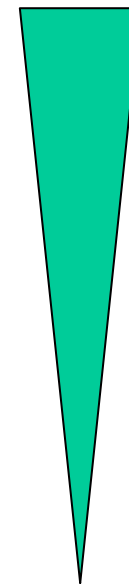
Workplace intervention strategies	Strength of Evidence for (less) Work loss
• Early contact with the worker by the workplace	Moderate
• Work accommodation offer	Strong
• Contact between healthcare provider and the workplace	Strong
• RTW coordination	Moderate
• Super-numerary replacements	Insufficient

Literature Review of Role of RTW-Coordinators

Shaw et al. J Occup Rehabil (2008) 18:2–15

Six competency domains identified:

- (1) ergonomic and workplace assessment
- (2) clinical interviewing
- (3) social-problem solving
- (4) workplace mediation
- (5) knowledge of business and legal aspects
- (6) knowledge of medical conditions.



In other words

Successful RTW coordination may depend more on competencies in:

- * ergonomic job accommodation,
- * communication,
- * conflict resolution

than on medical training.

Workplace intervention

(Shaw et al. Work 2006; 26, 107-114)

- Training work supervisors in skills can significantly improve RTW outcomes
- Skills/competencies included:
 - Understand recurrent nature of work-related MSK pain.
 - Provide more effective and supportive communication with workers.
 - Design more effective (ergonomic) job accommodations.
 - Build a more collaborative, less adversarial relationship with injured workers.

A recent NSW pilot study

Dr Garry Pearce (Occ Physician) and A/Prof Michael Nicholas presented the results at the joint meeting of Faculties of Occ and Rehab Medicine in Adelaide (May, 2008)

Early intervention at Concord Hospital, NSW

(Pearce, McGarity, Nicholas, Linton, Peat, 2008)

- Two year study with hospital employees making injury claims
- Modified OMPSQ: 13 item scale
- OMPSQ given when claim submitted (ie. generally within 48 hrs of injury)

2 phases in study:

Phase 1: usual care, OMPSQ data not examined until RTW

- Three groups identified – high, medium, low scorers
- High scorers reporting more pain, more distress, expectations of delayed RTW

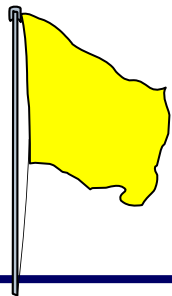
Phase 2: Following discussions & buy-in of Hospital management, insurer, union

- Additional interventions offered to high score (high risk) group and some to medium risk gp
- Costs obtained from insurer (for each case in both phases)

Preliminary cost findings with Concord OMPSQ study

Costs, from insurer, when claims closed (~ 1 yr).

OMPSQ scores (at time of claim)	Ave. cost of claims (at closure)
Low	\$4,878
Medium	\$6,240
High	\$17,178



Key points: 1) Psychosocial factors present at time of claim
2) Psychological sequelae are treatable

Intervention (phase 2 of Concord study)

High Risk (scores >85)

- * Independent Rehabilitation Provider within 2 weeks
- * Clinical Psychological assessment and treatment within 2 – 3 weeks.
- * Independent Medical Assessment within 1 month
- * Independent Physiotherapy Assessment after 6 weeks.
- * File review by Rehabilitation Medical Specialist if not returned to work within 4 weeks

Medium risk (70 – 84)

“Usual care + clinical psychologist”

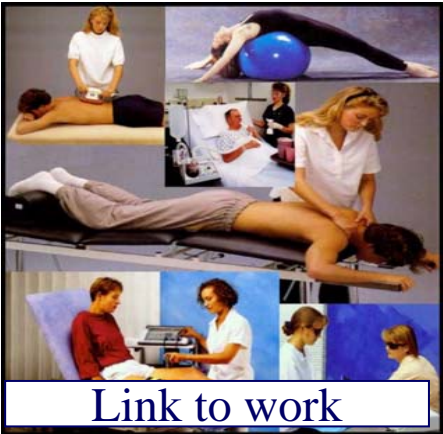
Low risk (<69)

“Usual care”

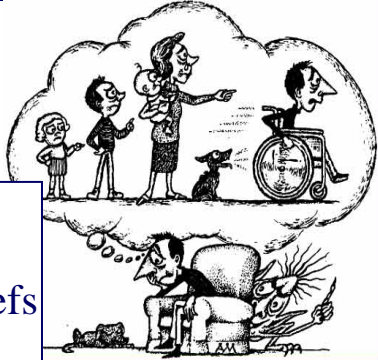
RESULTS: Comparison between Control and Intervention Cohorts

	CONTROL GROUP	INTERVENT GROUP	CONTROL GROUP	INTERVENT GROUP
RISK CATEGORY	%	%	\$ COST	\$ COST
LOW	47	51	4,878	4,898
MEDIUM	31	29	6,240	6,752
HIGH	22	19	17,178	12,847 Difference \$ 4331 or 25%

Implications for injury management: identify those at risk of long-term disability and employ targeted interventions



Link to work



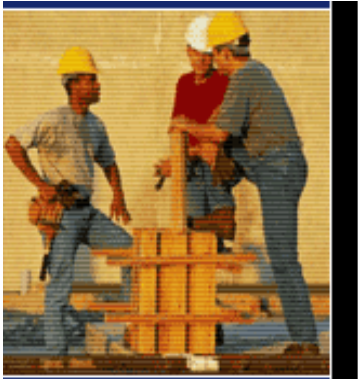
Address fears, beliefs



Modify job as needed



Support; avoid delays & doubts



Clear communication; problem-solving



Address concerns, encourage RTW



Supportive RTW policies; contact worker directly