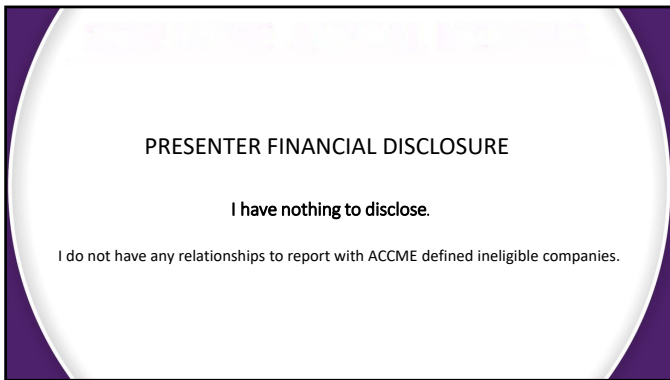
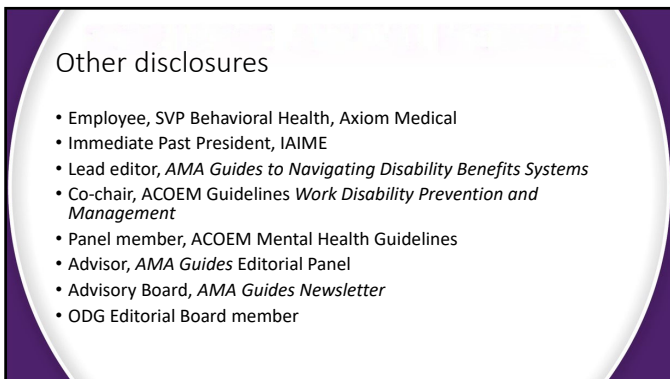


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Agenda

- Principles
- Risk factors for delayed and failed recovery
- Workplace-specific risk factors
- Takeaways

SISYPHUS WORKS FROM HOME

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Principles

Workplace Risk Factors for Delayed Recovery

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Biomedical model has limited applicability

```

    graph LR
      A[DISEASE OR INJURY] --> B[SYMPTOMS AND SIGNS]
      B --> C[IMPAIRMENT]
      C --> D[DISABILITY]
      E[EVALUATE] --> F[DIAGNOSE]
      F --> G[TREAT]
      G --> H[CURE]
  
```

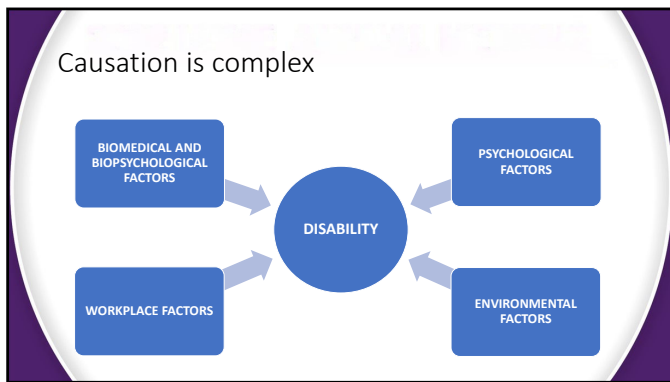
- Linear causation
- Dose dependence
- Treatment specificity
- Cure or remission

Waddell, et al. *Vocational rehabilitation – What works, for whom, and when?* Report for the Vocational Rehabilitation Task Group, TSO, London 2008

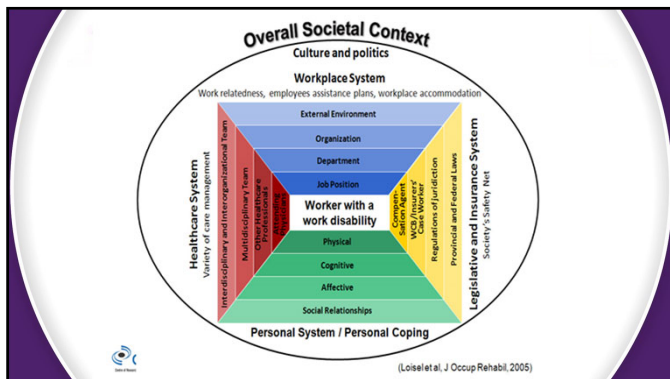
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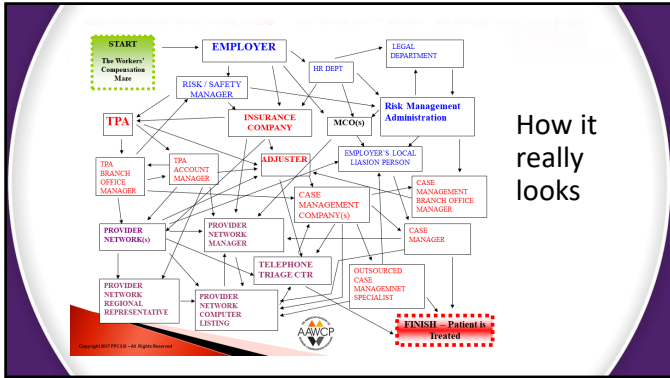
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How it really looks

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Risk Factors for DFR

Workplace Risk Factors for Delayed Recovery

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Risk factors for work disability (ACOEM 2022)

- **Physical conditions:** hypertension, obesity, neck/back pain, diabetes, dyslipidemia, severe asthma, physical inactivity, poor sleep, smoking
- **Demographics:** Age, gender (female), POC, lower SES, less education
- **Mental health conditions:** depressive disorders, other mental health disorders
- **Social conditions:** low social support, being single, high annual sickness absence, relational problems at work, workplace bullying, litigation
- **Work conditions:** low job control, time pressured work, long overtime hours, high physical demand work, computer work

Theis et al., 2019, Kraus et al., 2018, Mehta et al., 2017, Theis et al., 2018, Steiner et al., 2018, Cheadle et al., 1994, Waddell et al., 2006, Prasad et al., 2012, Dehve et al., 2003, Karpanalio et al., 2002, Skarpino et al., 2020, Nielsen et al., 2017, Clausen et al., 2019, Ward et al., 2001, Esmier et al., 2006, Lahti et al., 2012, Avakian et al., 2017, Bjorn et al., 2013, Wang et al., 2019, Virtanen et al., 2015, Hubert et al., 1994, CDC et al., 2020, Dembe et al., 2005


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Individual risk factors



- Mental health
 - Thoughts, feelings behaviors (about self, world, future)
- Psychosocial
 - Catastrophizing
 - Perceived injustice
 - Disability beliefs
 - Fear/Avoidance
- Comorbidities
- Demographics
- Single best predictor?

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Risk factors for work disability

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Contextual risk factors



- Claims context
- Isolation
- Legal involvement
- Economic circumstances
- Culture

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Risk factors for work disability

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Workplace risk factors



- Low job satisfaction
- Work demands
- Control
- Poor support
- Lack of accommodations

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Risk factors for work disability

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Workplace-Specific Risk Factors (and what to do about them)

Workplace Risk Factors for Delayed Recovery

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RTW: What works?

- **Determining risk factors (early intervention)**
 - Disability screening – recommended, insufficient evidence, moderate confidence
 - Education – recommended, insufficient evidence, high confidence
- **Non-treatment interventions**
 - Exercise prescriptions – recommended, insufficient evidence, high confidence
 - Nurse case management – recommended, insufficient evidence, moderate confidence
 - Workplace interventions – recommended, insufficient evidence, moderate confidence
 - Vocational rehabilitation – recommended, insufficient evidence, moderate confidence
- **Treatment**
 - Work-focused CBT – recommended, evidence (C), moderate confidence
 - Medical and psychological treatments for symptom reduction – no recommendation, insufficient evidence, low confidence

ACDEM, Work disability prevention and management guideline, 2022

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Do coordinated RTW programs work?

“Returning long-term sick-leave workers to work is important for society, employers, and certainly for workers themselves. Possible interventions for this purpose are return-to-work coordination programmes, also described as case management or collaborative care. ...
Return-to-work coordination programmes require substantial resources. However, it is uncertain how effective they are.”

At short-term, long-term, or very long-term follow-up, RTW coordination programs made **no difference** in time to RTW, cumulative absence, or proportion of workers who ever RTW.

Vogel et al. Cochrane systematic review and meta-analysis on RTW coordination programmes; 2017

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Does graduated RTW work?

- Retrospective cohort study design, workers on full disability for at least 30 days.
- When graduated RTW was offered after 30 days, employees had *longer* disability durations between the 2nd and 5th month, but *shorter* duration at 6th to 12th month.
- “For seriously injured workers with at least 30 days of disability due to a work-acquired MSD, the effect of GRTW becomes apparent at longer disability durations (more than 6 months), with larger beneficial effects for women, workers with soft-tissue injuries and for trade and manufacturing sectors.”
- “important to consider sustained work accommodation for workers with long-duration claims.”

Maas et al. Does gradually returning to work. *Occup Environ Med*, 2021;0:1-9

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Does partial sick leave work?

- Most common intervention for workers with low back pain in a multinational cohort (Anema, et al. 2004)
- RCT found that partial sick leave started *early* returned sooner and had fewer subsequent absences (Viikari-Juntura, et al. 2012)
- Other RCTs found no or inconsistent effects
- Bosman et al. 2020 found that partial sick-leave resulted in *longer* absence; however, that difference disappeared when timing was considered – there were no differences for shorter durations whether partial sick leave was started early or late, and for longer durations late partial sick leave shortened the duration.

Bosman, et al. 2020. Effect of partial sick leave. *J Occup Rehab*, 2020;30:203-210

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What about workplace interventions?

- Systematic review and meta-analysis of WI
- WI included technical interventions, physical exercise programs, behavioral training, educational programs, and participatory ergonomics
- Employees who received WI experienced improvements in LBP, disability, fear-avoidance beliefs, quality of life, and work ability
- However, differences in duration and measured work capacity were *not* statistically significant
- “... despite the pain decreased, workers were still afraid to fully return to work.”

Russo et al. 2021. The effects of workplace interventions. *In J of Environ Res Pub Health*, 18, 12614

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Do accommodations matter?

- Work accommodations offered by the employer found to be related to continued employment and faster RTW (moderate evidence)
 - Work change (moderate, positive)
 - Change in work time, including flexibility (positive RTW, less on continued employment)
 - Vocational rehabilitation, case management, and occ health strongly positively associated with RTW
 - Strong positive for equipment assistance
- At the supervisor level, strong evidence for work accommodations
 - Adapting work schedules, flexible hours
 - Workplace adaptations
 - Additional support and guidance
 - Vocational rehabilitation, offer of a new job with same employer
- Moderate evidence for social support and positive relationship with the employee
- Weak evidence for culture/policies at the employer level

Jansen et al. 2021, Role of the employer. *J Occup Rehabil*, 31:916-949

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Supervisors, workplaces, and RTW

- Highest ratings for personal attributes, knowledge of RTW processes, and empathetic support of employees (Johnston, V., Way, K., Long, M. H., Wyatt, M., Gibson, L., & Shaw, W. S. (2015). Supervisor competencies for supporting return to work: a mixed-methods study. *J Occup Rehabil*, 25(1), 3-17. doi:10.1007/s10926-014-9511-z)
- Considerate leadership style, workplace disability policies, supervisor autonomy in relation to accommodations (Kristman, V. L., Shaw, W. S., Reguly, P., Williams-Whitt, K., Soklaridis, S., & Loisel, P. (2017). Supervisor and Organizational Factors Associated with Supervisor Support of Job Accommodations for Low Back Injured Workers. *J Occup Rehabil*, 27(1), 115-127. doi:10.1007/s10926-016-9638-1)
- Early workplace communication and problem-solving practices led to earlier and more effective RTW despite similar pain complaints (Linton, S. J., Boersma, K., Traczyk, M., Shaw, W., & Nicholas, M. (2016). Early Workplace Communication and Problem Solving to Prevent Back Disability: Results of a Randomized Controlled Trial Among High-Risk Workers and Their Supervisors. *J Occup Rehabil*, 26(2), 150-159. doi:10.1007/s10926-015-9596-z)
- Work disability outcomes do not correlate well to health outcomes, cross-discipline coordination and workplace efforts have better outcomes but need more research – includes literature review (Pransky, G. S., Loisel, P., & Anema, J. R. (2011). Work Disability Prevention Research: Current and Future Prospects. *Journal of Occupational Rehabilitation*, 21(3), 287-292. doi:10.1007/s10926-011-9327-z)

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A caveat for small workplaces

- “Early and safe return to work” policy in Ontario, Canada
 - Can disrupt workplace norms and patterns of social interaction
 - For employers, conflict between administrative role and needs for running a business
 - Poor experience for workers
 - Called into question the practice of relying on the small employer and employee to self-manage
 - Making the employer an “extension of the state” complicates the emergence of creative solutions
- “Refocusing upstream”
 - Policies to increase the voice of the small employer
 - Audit policies as they impact the small employer
 - Revisit the terms and policies as they apply to workers in small workplaces

Eakin et al 2003, Playing it smart. *Policy and Practice in Health and Safety*. Easin et al. 2010, Health and safety in small workplaces. *Can J Pub Health*; 101(suppl 1): 529-533

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Physician, heal thyself

- Evaluated the variability of primary care physicians toward Medicaid work requirement exemption requests in patients with depression
- 25% would offer assistance “even when state policy would not support an exemption” for minor depression.
- 46% would offer assistance for major depression.
- 54% would not offer assistance when regulations would require this.
- 20% would not offer assistance even if they deemed the exemption appropriate
- PCPs identifying as Republicans were 75% less likely to assist
- Most important factor was the degree to which respondents found the administrative barrier appropriate

Schmidt et al. Variability in PCP attitudes. JAMA Health Forum 2021; 2(10):e212932

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There’s something happening here, what it is ain’t exactly clear

- Buffalo Springfield



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Summary and Takeaways

Workplace Risk Factors for Delayed Recovery

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The outsized role of the employer

- The availability of accommodations is a key driver of RTW
- Especially when involved with social support from the supervisor
- Workplace *programs* matter less than workplace *attitudes*

“Most return to work is negotiated between the employee and employer”

- Or words to that effect, Glenn Pransky

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And the limited role of the physician

- Emphasize health rather than disease or injury: advise on what they *can* do rather than what they cannot
- Reassure (but *realistically*) – not all reassurance is equal
- Set expectations using established guidelines (but *not* until the patient feels *heard* and feels their needs are met)
- Make sure treatment is evidence-based
- Be *clear* and *specific* about limitations and/or restrictions (ask yourself: “If Joe wanted to work, would I let him?”)
- Work with the employer, especially the supervisor

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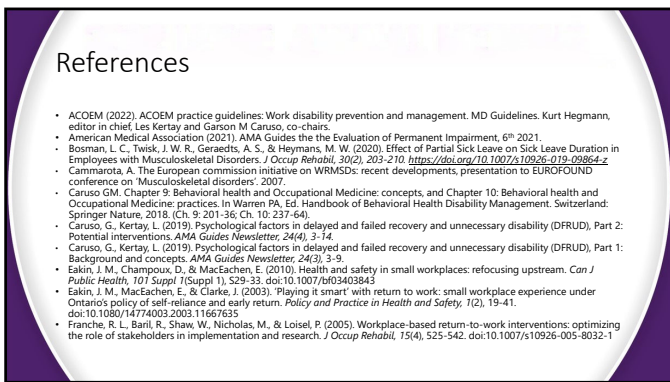
Takeaways

- Disability causation is biopsychosocial rather than biomedical
- Return to work is a negotiation
- The workplace is a primary driver
- Especially the supervisor
- Especially the availability of accommodations
- Returning injured workers to function requires a *cooperative* effort

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