Working Conditions as Drivers and Indicators of a Total Worker Health Framework

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Today’s Objectives

• Present a conceptual model for Total Worker Health®
• Illustrate the application of the model with social epidemiologic evidence
• Describe an assessment tool to measure workplace implementation of related best practices.
• Offer implementation guidelines as a resource for practice.
Why a conceptual model?

• Guide research on determinants of worker safety and health
• Inform the design, implementation and evaluation of integrated approaches to protecting and promoting worker safety and health.
Applying Total Worker Health: Identifying root causes in working conditions

Physical
– Exposures to safety and health hazards

Organization
– Hours worked
– Workload and pace of work
– Inadequate benefits (Wages, Leave, Flexibility)
– Inconsistent breaks
– Limited access to resources on the job

Psychosocial
– Job stress
– Low supervisor support
– Co-worker social norms
– Culture of health and safety at work
Conceptual Model: Modifying Working Conditions for Improved Outcomes

**Enterprise Characteristics**
- Workplace Policies, Programs, & Practices
  - Degree of integration

**Conditions of work**
- Physical Environment
- Organization of Work
- Psychosocial Factors
- Job Tasks & Demands

**Worker / Work Force Characteristics**
- Health & Safety Behaviors
- Engagement in Programs
- Knowledge, skills

**Worker Outcomes**
- Injury
- Illness
- Wellbeing

**Enterprise Outcomes**
- Productivity & Quality
- Turnover & Absence
- Health Care Costs

Applying the model: Boston Hospital Workers Health Study

• Collaboration with Partners Healthcare

• Datasets
  – 3 surveys of patient care workers at 2 hospitals
    ▪ Response rates = 71-79%
  – Nurse manager surveys
  – Administrative databases

• 38+ peer-reviewed manuscripts published 2011-2017
Integrated research database

Workers, clustered in units

- Hospital policies and practices
- Survey of workers
- Health care use and spending
- Quality of patient care
- Planned and unplanned absence
- Worker’s comp
- Hospital injury log
Attending to the Conditions of Work: Summary Findings for Healthcare Workers

CONDITIONS OF WORK
- Physical Environment
  - Job Demands
- Organization of Work
  - Ergonomic Practices
  - Job Flexibility
  - Inadequate staffing
  - Shift schedule/control
- Psychosocial Factors
  - Low decision latitude
  - Coworker/supervisor support
  - Work-family conflict
  - Harassment

WORKER OUTCOMES
- Pain
- Work interferences
- Cardiometabolic risk

WORKER PROXIMAL OUTCOMES
- Sleep deficiency
- Fatigue
- Physical Activity
- Psychological distress
- BMI

# Examples of Shared Pathways

<table>
<thead>
<tr>
<th></th>
<th>Supervisor support</th>
<th>Bullying at work</th>
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<tbody>
<tr>
<td>Risk of injury</td>
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<td>✓</td>
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<tr>
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<tr>
<td>Sleep deficiency</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Psychological distress</td>
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</tbody>
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*Nelson et al 2014; Reme et al 2014; Sabbath et al 2014; Sorensen et al 2011; Tveito et al 2014; Reme et al (in review).*
Example analysis:
Workplace bullying and mental health expenditures

• Research question: Do bullied workers have greater health plan expenditures on mental health diagnoses than non-bullied workers?

• Study captures both health costs to workers and economic cost to the employer
Mental Health Care Costs and Bullying (N = 841 hospital workers, 2012)

2-year mental health care costs

Types: *Being ignored/excluded
- Being humiliated/ridiculed
- Withholding information

Sabbath et al 2018.
Health and safety outcomes share common root causes in working conditions.

Working conditions matter for worker safety and health and enterprise outcomes.
Conceptual Model: Modifying Working Conditions for Improved Outcomes

Enterprise Characteristics

Workplace Policies, Programs, & Practices
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Worker / Work Force Characteristics

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Worker Outcomes
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Worker Proximal Outcomes
- Health & Safety Behaviors
- Engagement in Programs
- Knowledge, skills

Enterprise Outcomes
- Productivity & Quality
- Turnover & Absence
- Health Care Costs

Integrated approach:

A systems approach to worker safety, health, & well-being shaped by employee input & participation

Key Characteristics

1. Leadership commitment
2. Policies, programs & practices focused on positive working conditions
3. Participation
4. Comprehensive & collaborative strategies
5. Adherence
6. Data-driven change

Sorensen, et al. JOEM, on-line 2018
Workplace Integrated Safety and Health (WISH) Assessment

• 40 items measuring 6 key characteristics identified as central to best practices for protecting and promoting worker safety, health and wellbeing

• Development included identification of tested metrics where possible and extensive cognitive testing

Sorensen, et al. JOEM, on-line 2018
Example: Leadership Commitment

• **Defined:**
  – An organization’s leadership makes worker safety, health, and well-being a clear priority for the entire organization. They drive accountability and provide the necessary resources and environment to create positive working conditions.

• **Sample item:**
  – Worker health and safety are part of the organization’s mission, vision or business objectives.
Example: Policies, Programs, and Practices focused on Positive Working Conditions

- **Defined:**
  - The organization enhances worker safety, health, and well-being with policies and practices that improve working conditions.

- **Sample items:**
  - Supervisors are responsible for identifying unsafe working conditions on their units.
  - This organization ensures that policies to prevent harm to employees from abuse, harassment, discrimination, and violence are followed.
The Guidelines

- Executive summary
- Leadership & Collaboration
- Planning
- Implementation
- Evaluation & Improvement
- Tools & resources

Includes case examples, tips, checklists

Available at: http://centerforworkhealth.sph.harvard.edu

McLellan et al., 2017
Key Take-Away Messages

• A conceptual model can shape research and intervention design.
• Working conditions are often root causes of poor health and safety outcomes.
• Improving working conditions can optimize employee and employer outcomes.
• Sample resources illustrate how an upstream systems approach can improve working conditions and contribute to building a culture of health.
A Thank You to the Team!
Thank you!
And Questions?

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Our Shared Goal:
Protect and promote worker safety, health, and well-being

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