Dealing with drowsy - an issue plaguing America’s workforce

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The facts
How companies are managing
Keys to success
Group discussion
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The facts

Fatigue
Weariness from bodily or mental exertion; temporary diminution of the irritability or functioning of organs, tissues, or cells after excessive exertion or stimulation

Causes of worker fatigue
- Too little, poor or interrupted sleep (Over 43% of American workers are sleep-deprived)
- Long work hours
- Extended and irregular shifts may be stressful physically, mentally and emotionally

Effects of worker fatigue
Increased risk of illnesses, injuries
- Rates are 18% greater during evening shifts (noon to midnight)
- 30% greater during all night shifts
- 12 hour days are associated with a 37% increased risk of injury
- 2005 medical resident study showed for every extended shift in a month, 16% increase of an motor vehicle crash on their way home
- Up to 6,000 fatal crashes each year
- 3 X’s more likely to be in a car crash
- Driving while drowsy is impaired driving

Data sources on last slide
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The facts

Fatigue – a contributing factor in events

• 2005 Texas City BP oil refinery explosion (15 died, 180 injured)
• 2009 Colgan Air Crash (50 died)
• Space Shuttle Challenger explosion (8 died)
• Nuclear accidents at Chernobyl (estimated at 4,000 to 9,000 deaths)
• Errors in patient care, increased needlesticks, exposure to biofluids in healthcare workers

Has your company experienced events where fatigue was considered to be a contributing factor?

Business impacts

• Increased costs from lost productivity
• Increased injury and illness costs
• Increased time off due to illness
• Increased worker’s compensation $
• Estimated annual cost of $136.4 billion from fatigue-related, health-related lost productive work time

Data sources on last slide
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How companies are managing

• Education
  – Risks to one’s health, safety
  – Biology/circadian rhythm
    • Body programming
    • 7-9 hrs. sleep for overall health
    • Importance of diet, exercise
    • How to identify fatigue
  – Long duration tasks
    • Computer
    • Industrial
• Modifications to work
  – Flexible/modified schedules
  – Mandatory ergonomic breaks
  – Lighting, temperatures in work env.

• Google, Zappos, Cisco, Ben & Jerry’s
  – nap pods, encourage power naps
• Couches in break areas
• Fatigue Risk Management Programs
• Driving
  – Limits on consecutive driving hours
  – In-cab cameras to detect fatigue
Group discussion

• Does your company have programs in place to help manage fatigue?
• If so, what do they include?

Designate someone to report out from your group
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Keys to success

• Understanding what workers control, how companies can influence
• Systemic approach focused on human performance
• Ideas to simplify workloads
• The critical stakeholders
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Keys to success

What workers control
- Sleep, it’s priority, factors
- Medication management
- Caffeine, alcohol use

How companies can influence
- Seek buy-in, not just compliance
- Educate with a focus on, “What’s In It For Me,” or WIFM
- Use variety of information and resources including
  - Videos
  - Charts
  - Personal stories
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Systemic approach focused on human performance

Our people are influenced by the system they work in and they influence the system
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Human Performance definition:
The way people, culture, equipment, work systems and processes interact as a system.

Focus on reducing the seriousness and frequency of human failures and resulting outcomes by:
- Improving the interaction between the individuals and the critical systems
- Recognizing error-likely situations and applying tools to reduce the likelihood of error

Human performance makes it easier to get it right and harder to get it wrong
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Additive and increase the likelihood of errors

<table>
<thead>
<tr>
<th>Organizational factors</th>
<th>Individual factors</th>
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<tbody>
<tr>
<td>• Change</td>
<td>• Stress</td>
</tr>
<tr>
<td>• Time pressure</td>
<td>• Fatigue</td>
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<tr>
<td>• Inadequate training</td>
<td>• Distraction</td>
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<td>• Unclear roles and responsibilities</td>
<td>• Fitness for duty</td>
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<td>• Organizational or peer pressure</td>
<td>• Risk tolerance</td>
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<td>• Poor communication</td>
<td>• Complacency</td>
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<tr>
<td>• Poor job planning</td>
<td>• Overconfidence</td>
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<table>
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<tr>
<th>Task Demands</th>
<th>Work environment</th>
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<tr>
<td>• Vague or poorly written guidance/procedures</td>
<td>• Operational upset</td>
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<td>• High workload, multitasking</td>
<td>• Inadequate labels, signs, displays</td>
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<tr>
<td>• Simultaneous operations</td>
<td>• Confusing system feedback</td>
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<tr>
<td>• Infrequent or first-time tasks</td>
<td>• Poor equipment interface</td>
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<tr>
<td>• Inadequate job planning or design</td>
<td>• Limited tool availability/accessibility</td>
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<td>• Challenging peer interactions</td>
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Human Performance principles

1. People will make mistakes.
2. We can predict, manage and prevent error-likely situations.
3. Organizations influence individual behavior.
4. Understanding how and why mistakes occur and applying lessons learned can reduce incidents.
5. The majority of incidents stem from latent conditions triggered by active errors.
6. Violations (of rules and procedures) are rarely malicious, but well-meaning behaviors intended to get the job done.
7. How leaders respond to failure matters.
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Group discussion
What could leaders say or do that would support fatigue management?

What could leaders say or do that would hinder fatigue management?

People will make mistakes, and we can typically predict when they will occur. Given your work environment, when is it likely that your employees will make mistakes related to fatigue?

What could be done to revise the activities of these tasks to prevent fatigue?
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Ideas to simplify workloads, reduce mental fatigue

Workloads have increased, but complexity doesn’t have to
– Remove non-value added work
– Use technology to streamline tasks, allow remote, non-duplicative work

The Critical Stakeholders

• Engage the front-line workers
  – To develop program, identify when fatigue is likely on the job
  – Develop effective tools/strategies to manage it
• Deliver through the front line supervisor, the most important voice of the company to that worker
Cited references

Random House Unabridged Dictionary, © Random House, Inc. 2019

Occupational Safety and Health Administration
https://www.osha.gov/SLTC/workerfatigue/hazards.html

Centers for Disease Control and Prevention.
https://www.cdc.gov/features/dsdrowsydriving/index.html


Additional Resources
API recommended Practice 755