COVID-19 and worker fatigue: Lessons learned and mitigation strategies

Imelda Wong, Ph.D.
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
U.S. Department of Health and Human Services

The findings and conclusions in this presentation are those of the author and do not necessarily represent the official position of the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.
Potential factors of fatigue

COVID-19 response:
Notable events that affected workplaces

March 13, 2020
COVID-19 declared as a national emergency

May 14, 2020
CDC publishes guidance for communities, work, and school

January 15, 2021
White House outlines vaccine rollout program

Photo credit: Centers for Disease Control and Prevention
March 2020:
Declaration of a National Emergency
Fatigue among all workers

Major changes in routines

Uncertainty, worry, stress
  - Compounds sleep problems, increases likelihood of insomnia

Sleep problems increase risk for mental health issues

Stay at home measures
  - May limit access to daylight
  - Binge eating, less exercise, and other unhealthy behaviors
  - Effects on sleep health

Workplaces may adopt overnight shifts to accommodate rise in demands and hygiene/physical distancing practices
Risk for COVID-19 hospitalizations

Essential workers 1.6 times more likely to be hospitalized*

- Health care workers (7.7 x risk)
- Social Care (2 x risk)
- Transportation (2 x risk)

* Compared to non-essential workers

**Occupational factors:**
- Manual labor
- Night shift work
- Long work hours not significant

**Individual-level factors:**
- Male
- Some non-White ethnicities
- Lower socioeconomic status
- Lower education levels
- Overweight/obese
- Prior smoker

Healthcare workers

New cases of depression, anxiety, insomnia

Poor sleep associated with anxiety and stress

Sleep quality decreased and persisted during and after isolation following work shifts

Exacerbation of mental health issues


Commercial trucking

Emergency Declaration Under 49 CFR § 390.23 No. 2020-002

- Truck drivers and support personnel declared as Essential Critical Infrastructure
- Relaxed hours of service rules with restrictions to ensure driver safety

Survey Results:

- Decrease in trip lengths. More local hauls (<100 miles)
- Less traffic congestion = higher travel speeds (within limits)
- Longer detention (e.g., loading/unloading) times
- Closed rest stops, harder to find parking
Working from home

- Juggling dependent care
- Lack of work/life balance
- Increased in time in meetings, fragmented time
- Workplace isolation
- Awkward/non-ergonomic desk configurations
- Noisy conditions
May 2020:
Guidelines for safe workplaces

https://www.cdc.gov/niosh/emres/2019_ncov_default.html
Changes in employment

Largest job losses:
- Accommodations and food services
- Manufacturing
- Retail Trade
- Some public transport occupations

Biggest impact on low-paid workers

Precarious work/multiple jobs

Overnight shifts to accommodate physical distancing requirements and extra hygiene procedures

Understaffing and rise in work intensity

Healthcare workers: COVID-19 infections and fatalities

US Healthcare workers (May 2020):

- **69,761 cases**
- **368 deaths**


Total reported cases of COVID-19 **infections** in Healthcare workers worldwide, May 2020

Total reported cases of COVID-19 **deaths** in Healthcare workers worldwide, May 2020

Healthcare workers: determinants of fatigue

- Limited resources
- Overwhelming workloads
- Longer shifts
- Sleep disruptions
- Work-life imbalance
- Process inefficiencies
- Occupational hazards
- Financial instability

January 2021: Vaccine rollout program
General strategies to reduce fatigue

Fatigue Risk Management Systems

Prevention measures
- Personal hygiene
- Psychological support systems
- Organizational policies & practices

Targeted, effective messaging
- Language level
- Translations
- Infographics
Tips to reduce fatigue while working from home

**Employer practices**
- Provide a clear plan, regular communication, flexibility, and necessary resources

**Worker practices**
- Set temporal and physical boundaries between work and nonwork
- Create focus times
- Keep a regular routine
- Maintain healthy practices including good sleep hygiene
- Engage in social connections (while maintaining physical distancing)
- Limit stressors


Lessons learned: healthcare workers

Possible long-term psychological implications and fatigue

Strategies to prevent burnout, occupational stress, and fatigue

- Coordination of responses, including institutional collaborations
- Structured training on large-scale disasters
- Increased staffing
- Raising awareness and self-assessment of fatigue and reporting to management for timely intervention

Figure adapted from Xiao 2020: The Effects of Social Support on Sleep Quality of Medical Staff Treating Patients with Coronavirus Disease 2019 (COVID-19)
Leadership through crisis: Fighting fatigue pandemic in health care during COVID-19

“Leadership that goes beyond organisational efforts of mitigating fatigue through mandated working hour limits alone are needed. A process to facilitate identification, mitigation and prevention of fatigue is likely to be best suited.”

Whelehan DF, Algeo N, Brown DA. BMJ Leader Published Online First: 2021 March. doi:10.1136/leader-2020-000419
COVID-19 Information for the Workplace

General Information for Businesses

NIOSH COVID-19 resources: stress and fatigue

Science Blogs:
- Managing Fatigue During Times of Crisis: Guidance for Nurses, Managers, and Other Healthcare Workers
- Improve Sleep: Tips to Improve Sleep When Times are Tough
- COVID-19 Stress Among Your Workers? Healthy Work Design and Well-being Solutions are Critical
- COVID-19 and Workplace Fatigue: Lessons learned and Mitigation Strategies

Fact Sheets:
- Healthcare Personnel and First Responders: How to Cope with Stress and Build Resilience During COVID-19 Pandemic
- Employees: How to Cope with Job Stress and Build Resilience During the COVID-19 Pandemic
- What Workers and Employers Can Do to Manage Workplace Fatigue during COVID-19

https://blogs.cdc.gov/niosh-science-blog/2020/06/29/sleep-hwd/
More to come ...

Studies:

- Responder organizations and COVID-19: Coping with trauma and promoting resilience
- A Longitudinal Examination of Mental and Physical Health among Police Associated with COVID-19

“Stress and Fatigue During Times of Emergencies” webpage

Short video / podcast for employers and workers to manage fatigue during challenging times

*Identifying lessons learned will help us be better prepared for future crises*
Key messages:
Consider the complete picture

Fatigue is more than hours of work and sleep

Work intensification, organization, and arrangements

Uncertainty / unknown
- “New normal”? 
- Economic instability
- Long term physical effects of COVID-19?

Mental health / stress
- Fatigue is a symptom of mental health issues and it exacerbates existing mental health issues
Questions for the Board

What else should we do during this time of “rebuilding” to address workplace fatigue?

How can we gauge the effectiveness of our products and activities?
Thank you!

Center for Work and Fatigue Research

www.cdc.gov/niosh/topics/fatigue
cwfr@cdc.gov

For more information, contact CDC
1-800-CDC-INFO (232-4636)

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