



# Fatigue Among Healthcare Workers: Do Solutions Exist?

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# Presentation Overview

- Define fatigue and the relationship between sleep fatigue
- Describe the evidence on sleep and fatigue in healthcare
- Outline recommendations for managing fatigue in healthcare
- Identify barriers to fatigue management
- Discuss how to overcome barriers and
- Identify future research needs

# Understaffed and overworked: Nurses fatigued at the onset of pandemic's winter wave

Smith, 2020

## 'We are all exhausted': CA allowing hospitals to bypass strict nurse-to-patient ratios amid COVID-19 surge

Associate Press, 2021, January 8

## Exhausted Hospital Workers Crushed As Coronavirus Patients Flood In

Kaiser Health News, 2020

CALIFORNIA

Thousands of L.A. healthcare workers sickened by coronavirus, worsening crisis in hospitals

Karlamangla, 2021

'Numb', 'grief', 'fatigued': Health care workers sum up COVID-19 in one word. What's yours?

Lindstron, & Basye, 2020

'Our staff is exhausted.' Riverside County healthcare workers brace for next COVID-19 surge

Nelson, 2020

## Fatigue and exhaustion among healthcare workers as COVID-19 cases rise

Mackay, 2020

COVID-19 updates: Nurses report fatigue as North Texas counties reach all-time highs for hospitalizations

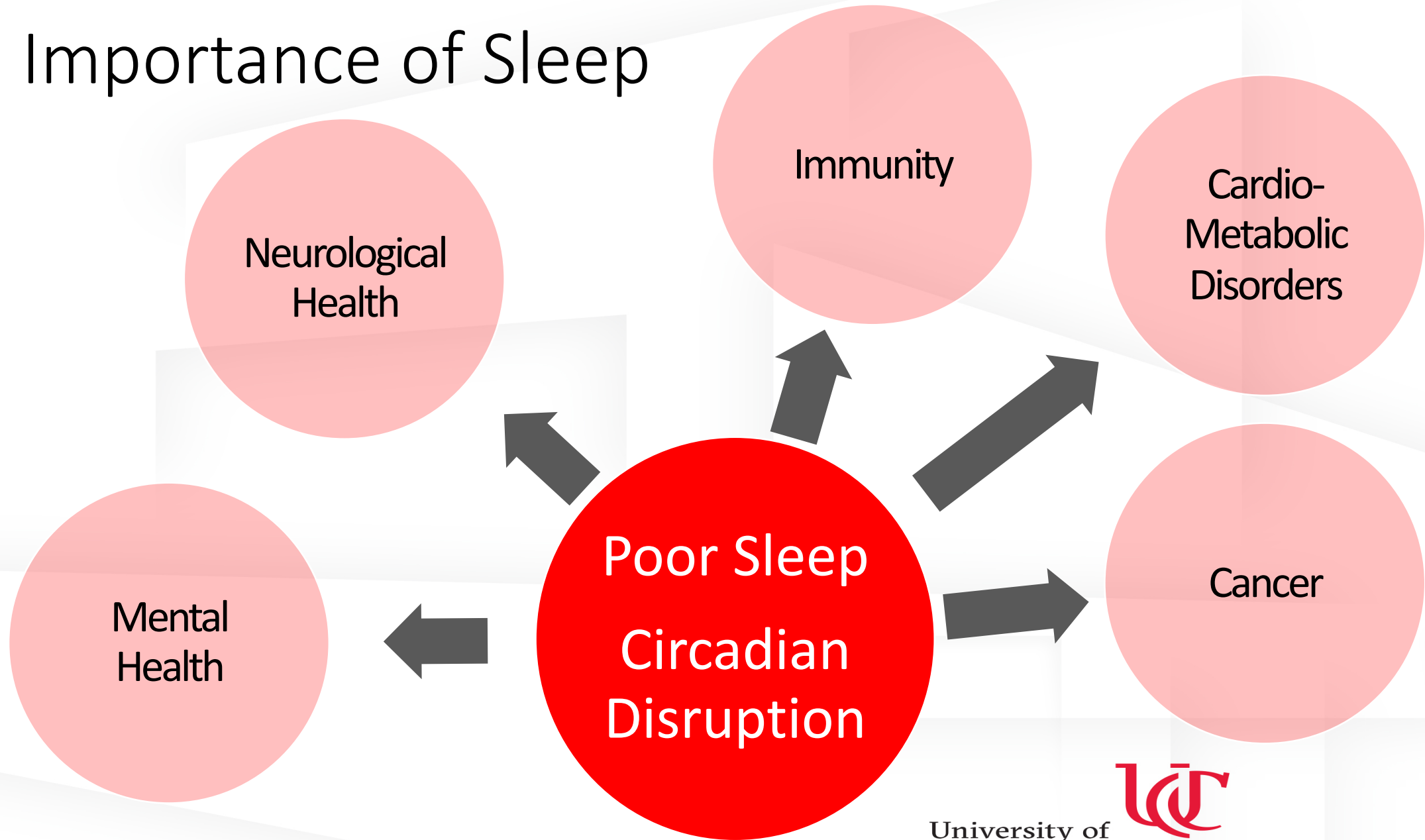
Wallis, Escobedo, & Howerton, 2020

# What is Fatigue?

**Fatigue is “the body’s response to sleep loss or to prolonged physical or mental exertion.” (Lerman et al., 2012)**



# Importance of Sleep



# How Tired are Nurses?

## Since COVID-19 Onset

- Nurses caring for COVID-19 patients had more fatigue and less sleep
- 83% of all nurses reported sleeping below 7-hours
- Regardless of COVID-19 patient care, nurses reported mod to high acute and chronic fatigue

## Pre-COVID-19 (2004-2016)

- Dayshift nurses averaged 6-6.9 hours of sleep
- Nightshift nurses averaged 5.2-6.1 hours of sleep
- Acute fatigue and inter-shift fatigue mod to high Sleep was associated with patient safety

# Organizational Factors Contributing to Fatigue

Workload

Work  
Timing

Extended  
Work Hours

Culture

# Fatigue Risk Management

## Organization

Provide time for rest

Educate and train staff

Monitor for fatigue



## Workers

Use time off for rest

Arrive fit for duty

Engage in education and training

**A Joint Effort  
Between  
Leadership and  
Workers**



# Fatigue Risk Management: Organization

## Provide time for rest

- Sufficient breaks during shifts, in-between shifts, and between blocks of shifts

## Educate and train staff

- Risks associated with poor sleep/fatigue
- Strategies for prevention/mitigation

## Monitor for fatigue

- Technology to predict and monitor fatigue

# Fatigue Risk Management: Workers

**Use time off  
for rest**

- Take breaks, rest/sleep when time is provided

**Arrive fit  
for duty**

- Fitness for duty should include being well-rested

**Engage in education  
and training**

- Attending training programs
- Employing strategies in practice

# Barriers to Fatigue Risk Management

- No “one size fits all” approach for organizations
- Individual differences among workers
- Limited staffing resources
- Heterogeneity in research
- Fatigue is not always easy to measure
- Data sources for contributing factors disjointed
- Sleep and fatigue lacking in adverse event root cause analyses

# Addressing Barriers

Heterogeneity in practice settings and research

**Developing evidence-based programs**

Individual differences

**Education, “buddy systems”**

Limited staffing resources

**Academic-practice partnerships**

Fatigue is not easy to measure

**Self-report surveys, short cognitive tests**

Data sources disjointed

**Predictive model products**

Sleepiness not tracked in adverse event root cause analyses

**Joint effort and culture**

# Need for Future Research

- Culture change
- Predictive models
- Fatigue detection and counter strategies
- Education
- Individual differences
- Effectiveness of full fatigue risk management program

Thank you!

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