
HFES
Systems That Work for Humans
67TH INTERNATIONAL ANNUAL MEETING
HUMAN FACTORS AND ERGONOMICS SOCIETY
OCTOBER 23-27, 2023
WASHINGTON HILTON | WASHINGTON, DC

67TH INTERNATIONAL ANNUAL MEETING
HUMAN FACTORS AND ERGONOMICS SOCIETY

HFES
Systems That Work for Humans

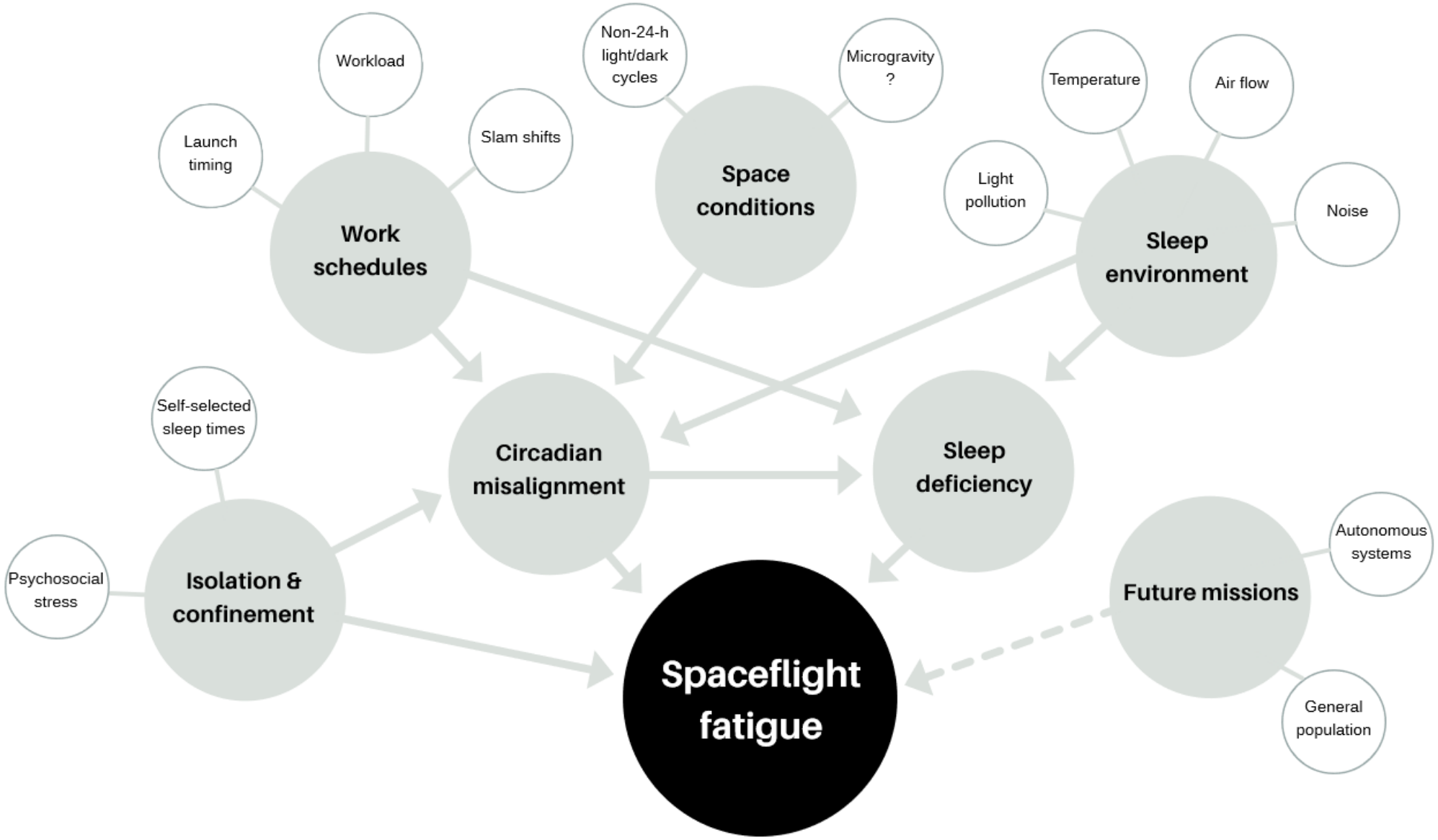
# Space Transport and Fatigue

Crystal L. Kirkley[1], Zachary L. Glaros[1], Nicholas G. Bathurst[1], Cassie J. Hilditch[2], & Erin E. Flynn-Evans[1]

[1]Fatigue Countermeasures Laboratory, Human Systems Integration Division, NASA Ames Research Center, Moffett Field, CA, USA

[2]Fatigue Countermeasures Laboratory, Department of Psychology, San Jose State University, San Jose, CA, USA

# What are the challenges to sleep in space?



# How can we protect sleep & manage fatigue during space travel?

- Light interventions
- Improved scheduling tools
- Habitat design
- Pharmacological countermeasures

Source: nasa.gov

# Future challenges to managing fatigue in space

- Nature of spaceflight changing rapidly
  - Space travel becoming more accessible
  - Passive passengers
  - Autonomously piloted spacecraft


Source: nasa.gov

# Summary points for practitioners

- Fatigue risks in space similar to shiftwork on Earth
- Unique fatigue risks specific to spaceflight
- Fatigue Countermeasures
- Commercial spaceflight/Diverse traveling population


Source: nasa.gov


HFES
Systems That Work for Humans