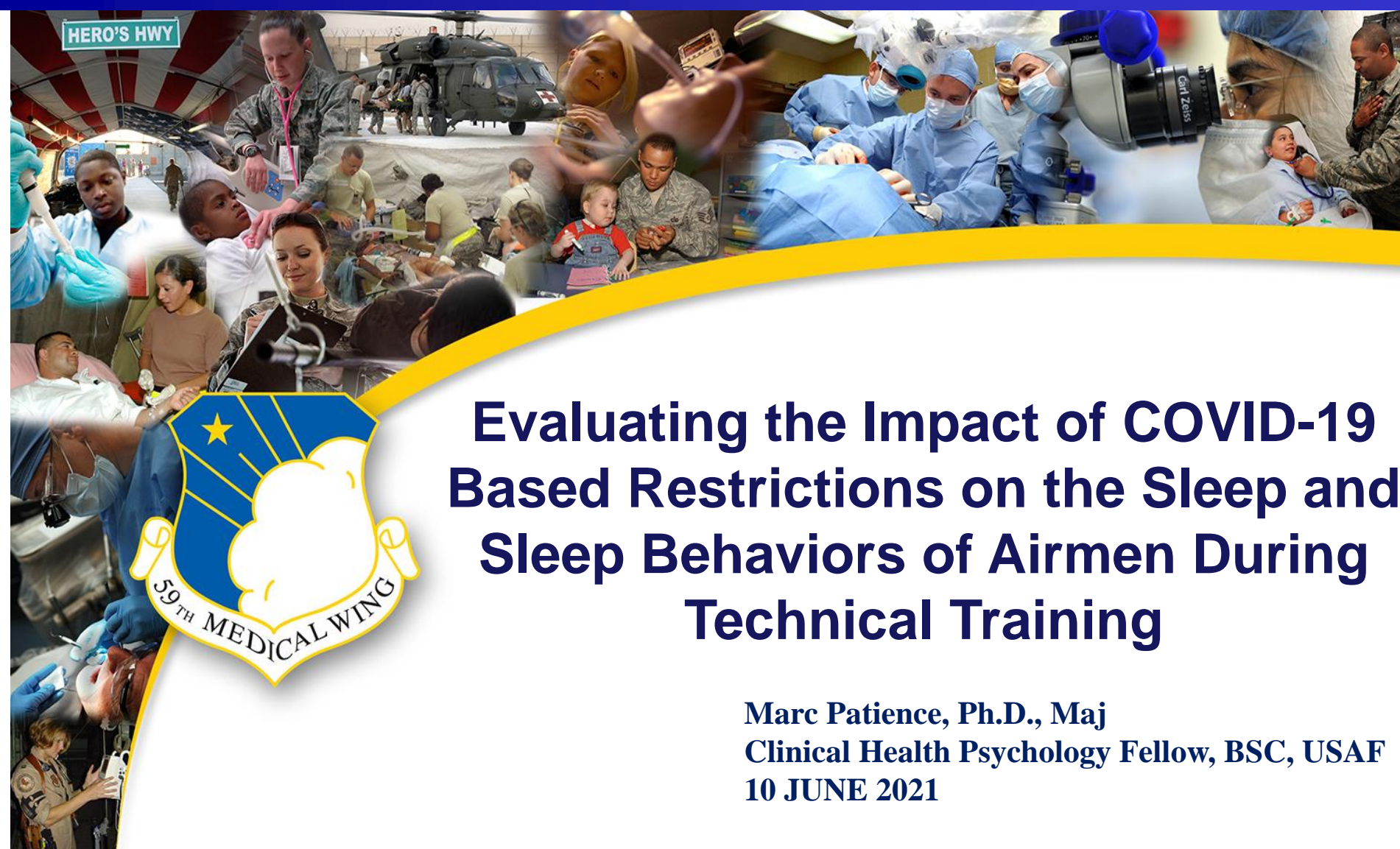




59th Medical Wing



Evaluating the Impact of COVID-19 Based Restrictions on the Sleep and Sleep Behaviors of Airmen During Technical Training

Marc Patience, Ph.D., Maj
Clinical Health Psychology Fellow, BSC, USAF
10 JUNE 2021





Disclaimer



Warrior Medics – Mission Ready – Patient Focused

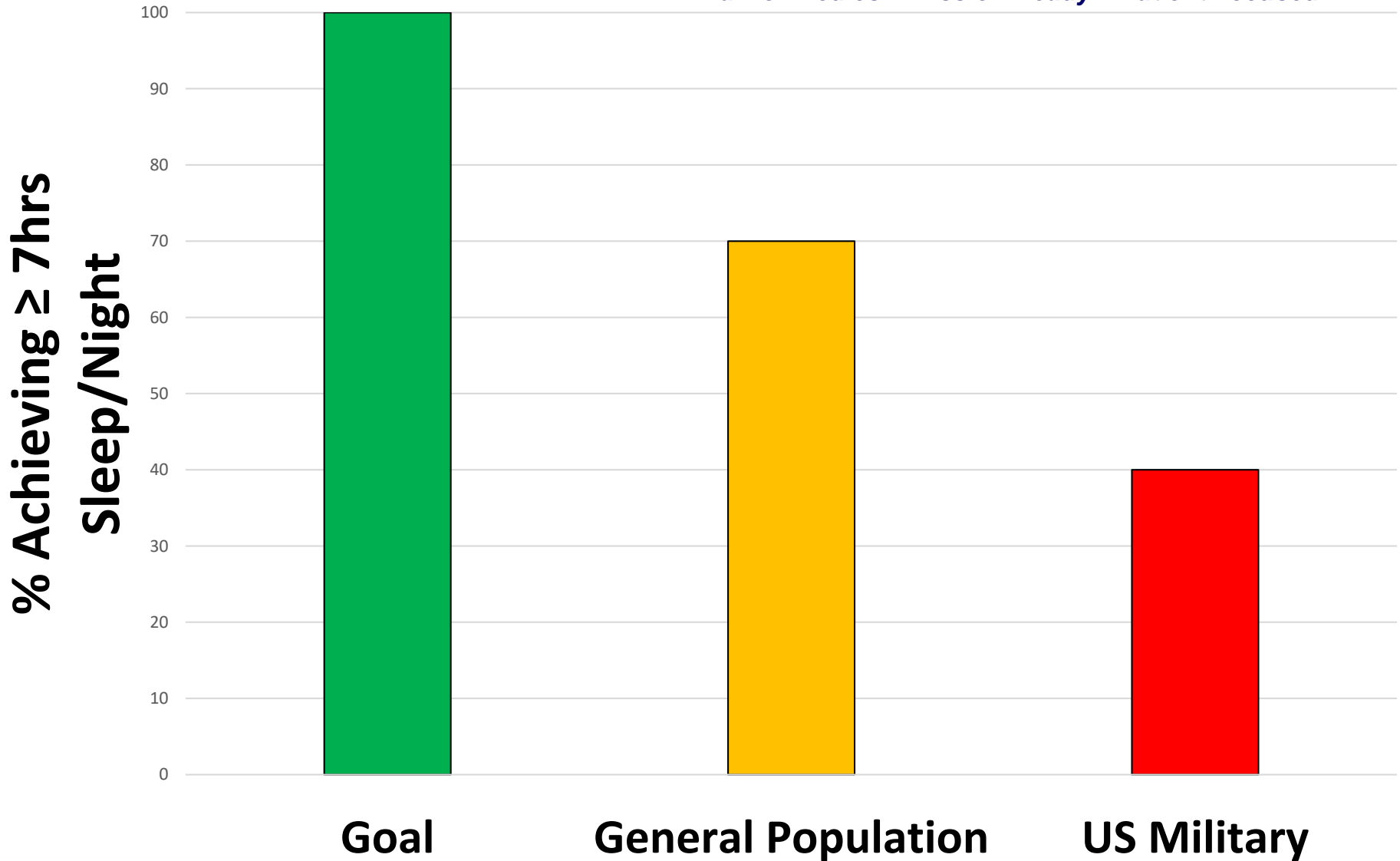
The view(s) expressed herein are those of the author(s) and do not reflect the official policy or position of Brooke Army Medical Center, the U.S. Army Medical Department, the U.S. Army Office of the Surgeon General, the Department of the Army, the Department of the Air Force and Department of Defense or the U.S. Government.



America Is Under-Slept



Warrior Medics – Mission Ready – Patient Focused





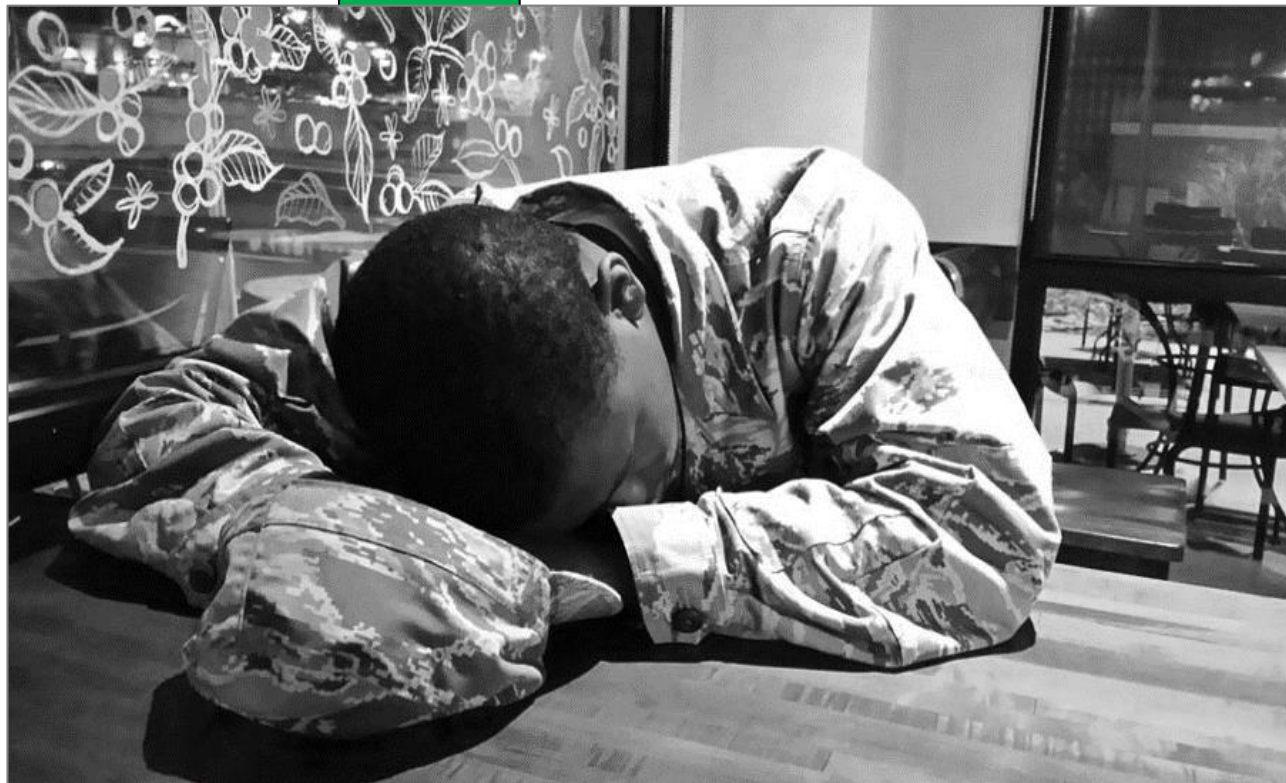
DoD is Under-Slept



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100

90



60%

**Reporting Less than
7 hours of sleep per
night**

0



Goal

General Population

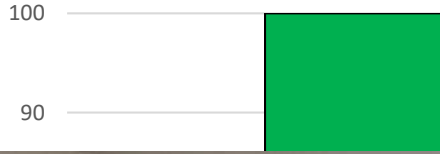
US Military



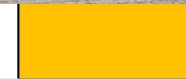
Technical Trainees are Under-Slept



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50%
 Reporting Less than
 6.5 hours of sleep
 per night pre-Covid



Goal

General Population

US Military



A grayscale photograph of a hospital ward. The room is filled with rows of empty hospital beds, each with a metal frame and a light-colored blanket. In the background, there are rows of lockers. Large windows on the right side of the room let in bright light, creating a high-contrast scene. The overall atmosphere is sterile and quiet.

“BEST SLEEP OF MY LIFE”



What Leads to These Changes in Sleep?



Warrior Medics – Mission Ready – Patient Focused



What Leads to These Changes in Sleep?



Warrior Medics – Mission Ready – Patient Focused

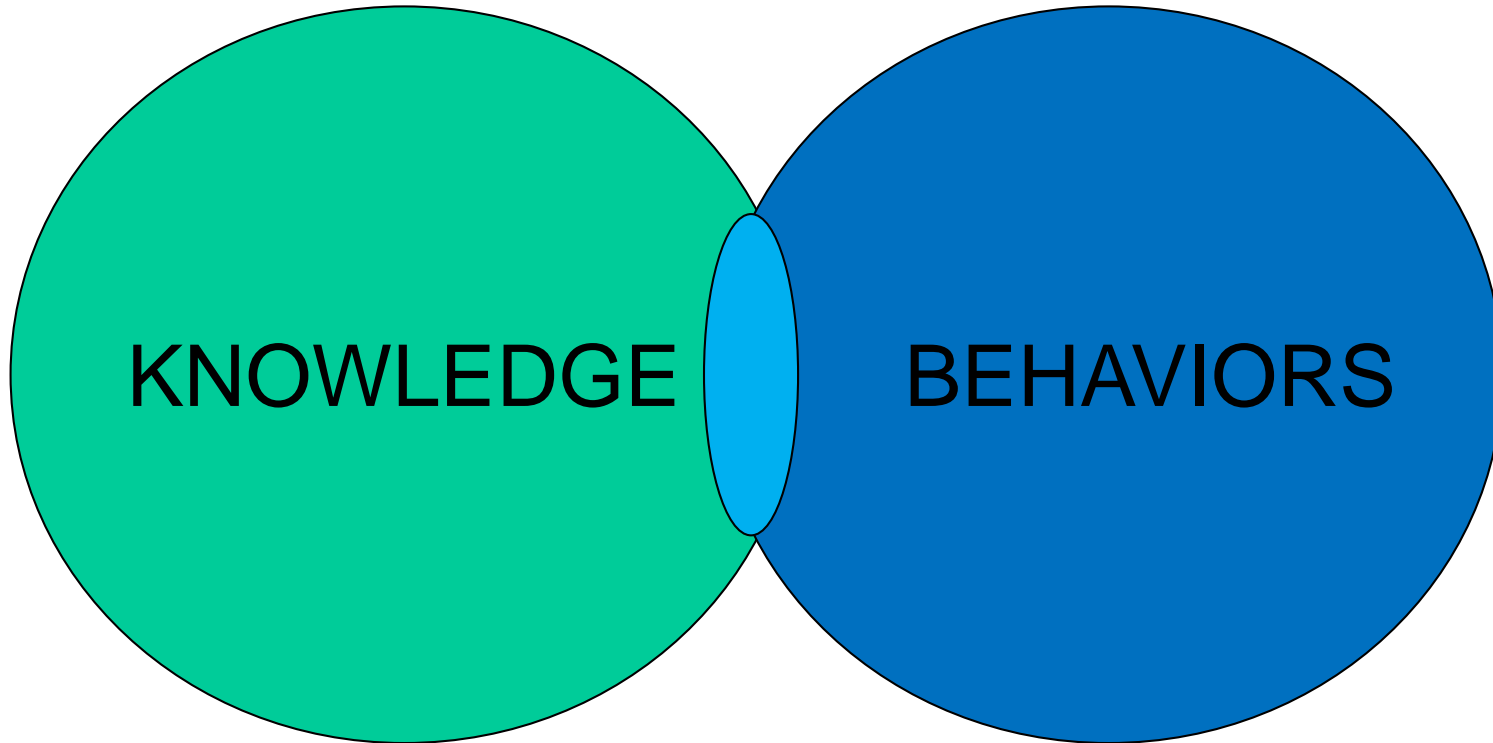
KNOWLEDGE



What Leads to Better Sleep?



Warrior Medics – Mission Ready – Patient Focused

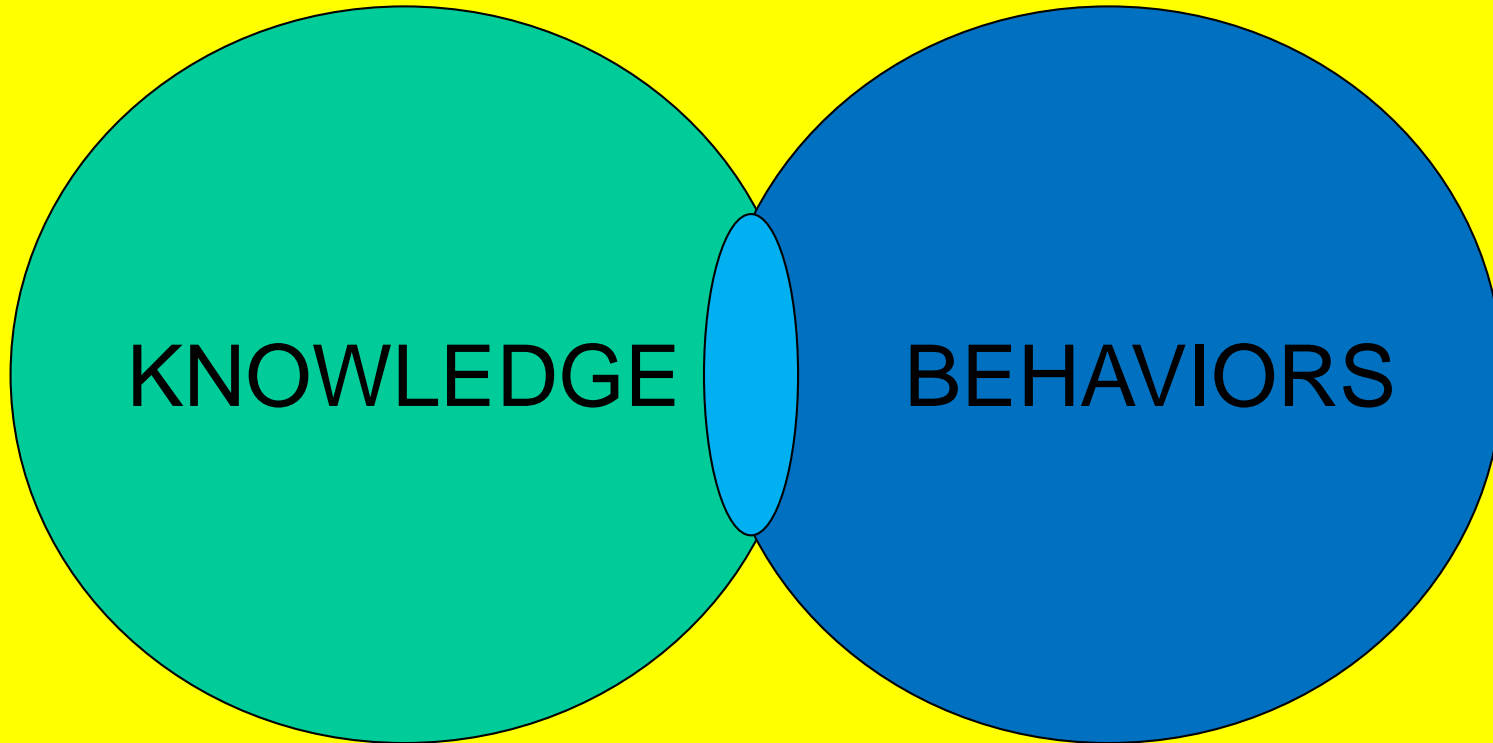




What Leads to Better Sleep?



Warrior Medics – Mission Ready – Patient Focused



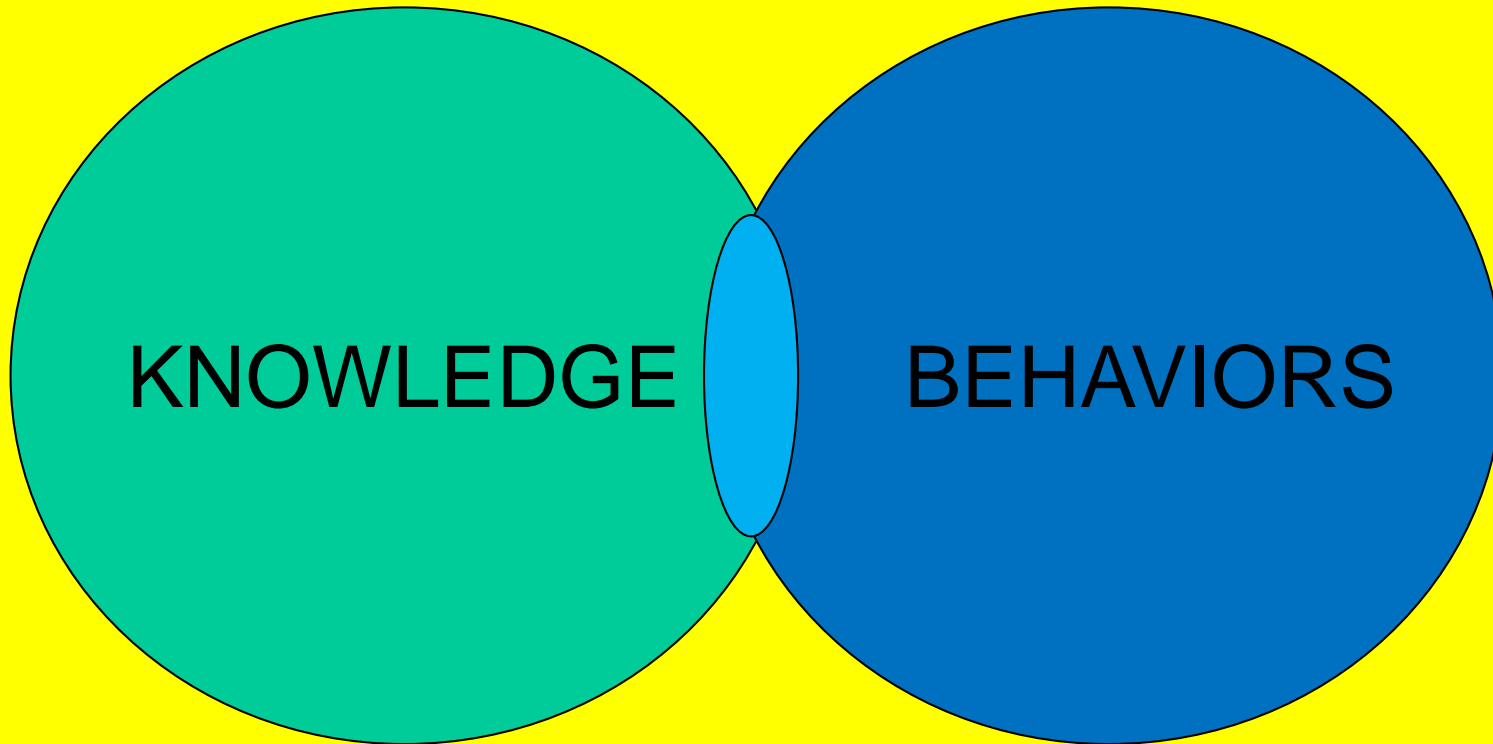


What Leads to Better Sleep?



Warrior Medics – Mission Ready – Patient Focused

Intro to Tech Training



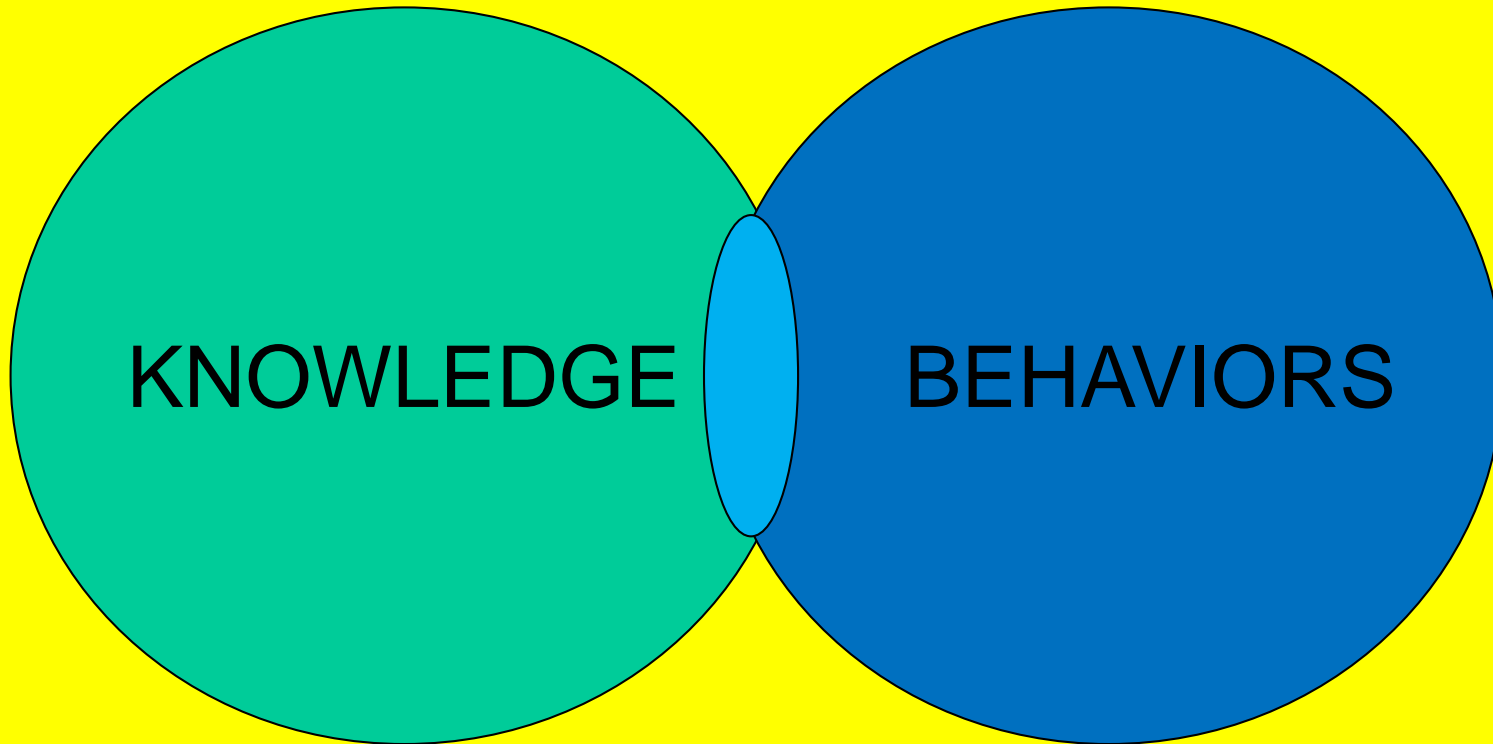


What Leads to Better Sleep?



Warrior Medics – Mission Ready – Patient Focused

Intro to Tech Training



COVID



paper towels

bath tissue

Viva Viva
Viva Viva
Viva Viva
Viva Viva



Forced Choice – Good Outcome?



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Forced Choice – Good Outcome?



Warrior Medics – Mission Ready – Patient Focused





Forced Choice – Good Outcome?



Warrior Medics – Mission Ready – Patient Focused





Forced Choice – Good Outcome?



Warrior Medics – Mission Ready – Patient Focused



“BEST SLEEP OF MY LIFE”



So Why Doesn't That Carry Over?



Warrior Medics – Mission Ready – Patient Focused



So Why Doesn't That Carry Over?



Warrior Medics – Mission Ready – Patient Focused

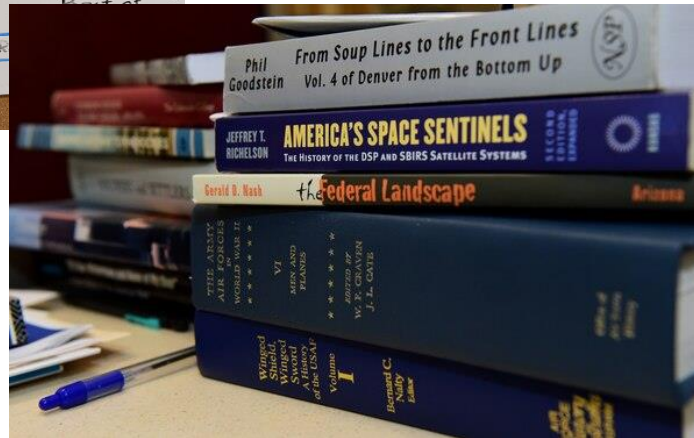
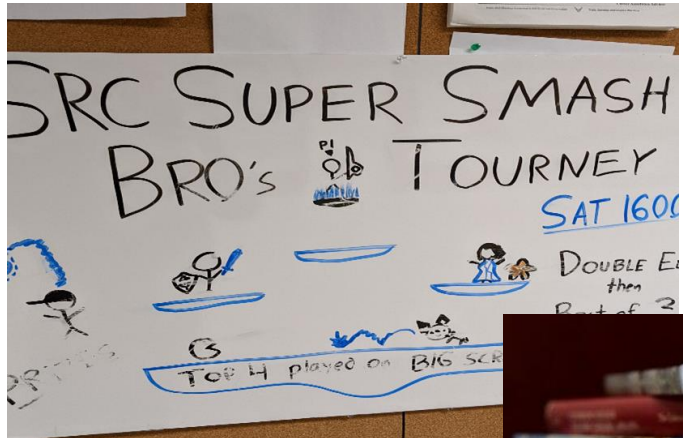




So Why Doesn't That Carry Over?



Warrior Medics – Mission Ready – Patient Focused

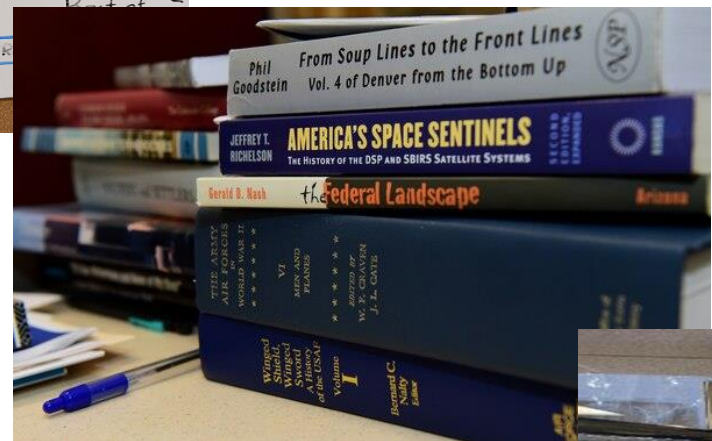




So Why Doesn't That Carry Over?



Warrior Medics – Mission Ready – Patient Focused





Sleep In Technical Training



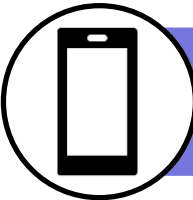
Warrior Medics – Mission Ready – Patient Focused



28% Use Caffeine, Tobacco, or Alcohol within 4 Hours of Bedtime



63% Regularly do Something that May Wake Them Up Prior to Bed



66% Use their Bed for Activities Other than Sleep



61% Think, Plan, or Worry in Bed

“Yeah, I mean, I **prioritize** like more of my morale and like **being with friends** [phone, texting, video games] and stuff because being so far away from home.”



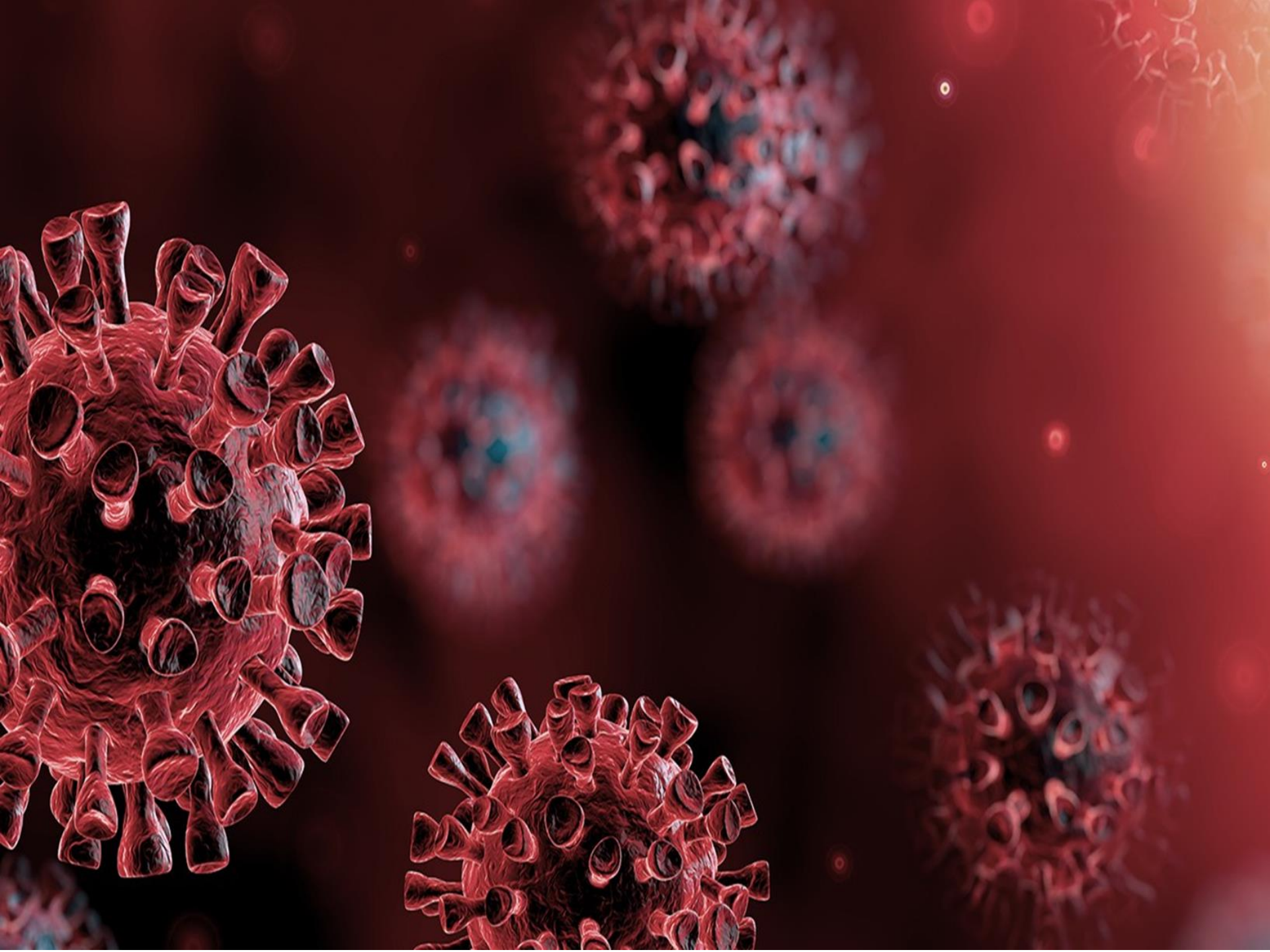
Sleep In Technical Training



Warrior Medics – Mission Ready – Patient Focused

- 43.8% reported **daytime sleepiness**
- 30.5% reported **trouble staying awake** during the day
- 26.7% reported **difficulty concentrating** due to poor sleep
- 23.7% reported sleep problems **interfere with daily functioning**







Countermeasures



Warrior Medics – Mission Ready – Patient Focused

- **Restricted to the Base – Cannot Leave without Authorization**
- **No Day Trips or Spending the Night Off base on Weekends with Family**
- **Can't Sponsor Others On base (Haven't Seen Family in 2+ months)**
- **Only Phase 3 Airman Can Drive POV**
- **Alcohol Limited to Airman's Club w/Limited Capacity**
- **Obstacles to Fitness/Sports (e.g., Line to enter Gym; Sports within Sq)**
- **Face Coverings and Social Distancing**
- **Scholastic Expectations Remain Unchanged**



Countermeasures



Warrior Medics – Mission Ready – Patient Focused

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Warrior Medics – Mission Ready – Patient Focused

and...COVID.



Behavioral Changes



Warrior Medics – Mission Ready – Patient Focused

Pre-COVID

COVID



28% Use Caffeine, Tobacco, or Alcohol within 4 Hours of Bedtime

81%



63% Regularly do Something that May Wake Them Up Prior to Bed

54%



66% Use their Bed for Activities Other than Sleep

48%



61% Think, Plan, or Worry in Bed

65%



Alertness/Performance



Warrior Medics – Mission Ready – Patient Focused

In the Past Week:

- **Daytime Sleepiness** ↑ 4.2% (43.8% to 48%)
- **Trouble Staying Awake** ↓ 3.5% (30.5% to 27%)
- **Difficulty Concentrating** ↑ 12.3% (26.7% to 39%)
- **Interfering with Daily Functioning** ↑ 13.3% (23.7% to 37%)



Timing



Warrior Medics – Mission Ready – Patient Focused

- **55% Stay in Bed Longer than I Should Two or Three Times a Week**
 - **↑21%** (from 34% pre-COVID)
- **47% Go to Bed at Different Times from Day to Day**
 - **↓7%** (from 54% pre-COVID)
- **57% Get Out of Bed at Different Times from Day to Day**
 - **↑12%** (from 45% pre-COVID)



Sleep Efficiency and Duration



Warrior Medics – Mission Ready – Patient Focused

Last 2 weeks:

- **14% Reported Difficulty Staying Asleep**
↓ 5% (from 19% to 14%)
- **22% Dissatisfied with Current Sleep Pattern**
↓ 6% (from 28% to 22%)
- **33% Sleep < 6.5 hours per Weeknight**
↓ 17% (from 50% to 33%)



Way Forward



Warrior Medics – Mission Ready – Patient Focused



Way Forward



Warrior Medics – Mission Ready – Patient Focused





Way Forward



Warrior Medics – Mission Ready – Patient Focused

- **Alternatives to dorm/bedroom environment socialization**
- **Access/exposure to natural sleep rhythm producers (sunlight, friends)**
- **Replacements for physical exercise**
- **Utilization of Choice Architecture within Shoppettes (Caffeine)**
- **Education about sleep promoting behaviors**



SANDMAN



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TARGETING

the **LEAD DOMINO**





References



Warrior Medics – Mission Ready – Patient Focused

Mayhew, P., Clarke, R. V., & Elliott, D. (1989). Motorcycle theft, helmet legislation and displacement. *The Howard Journal of Criminal Justice*, 28(1), 1-8.

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Research & CPI Team



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