



Designing for Healthy Sleep and Travel

Insights from 2021 CIHF Keynote



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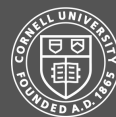
Healthy Futures

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DESIGNING FOR HEALTHY SLEEP AND TRAVEL

A Research Perspective

Insights from
2021 CIHF Webinar  eCornell
March 23, 2021, 10AM-11AM (EDT)

Reported by CIHF

Webinar chaired by:

Heather Kolakowski, SHA '00

Associate Director of Cornell Institute for Healthy Futures; Lecturer, School of Hotel Administration, Cornell SC Johnson College of Business

The pandemic has disrupted all aspects of our lives: how we work, how we socialize, how we provide healthcare, how we travel, and even how we sleep. As we confront this health crisis, healthy sleep is especially essential for our safety, work performance, and well-being.

Sponsored by the Cornell Institute for Healthy Futures, this session featured insight from health, hospitality, and design researchers, who highlighted academic perspectives and tangible industry practices to increase our understanding of the impact of healthy sleep in our homes and in travel settings. Within this edition of *Healthy Futures*, we learn about the evidence-based clinical trials and cutting-edge research on sound sleep and circadian rhythms, and how, using this research, we can design for better sleep and change our sleep culture to travel safely and lead healthier lives.

Main Points:

- The surprising relationship between guest sleep satisfaction and overall hotel satisfaction
- The hospitality attributes that are the strongest predictors of guest sleep and hotel satisfaction
- Effective, evidence-based educational programs to improve sleep and prevent disturbances to circadian rhythms during times of social/physical distancing and the COVID-19 pandemic

Presenters



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Rebecca Robbins
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Rana Zadeh
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Rohit Verma
CIHF Co-Founder and Executive
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The Science of Sleep

"Health is the first muse, and sleep is the condition to produce it." - Ralph Waldo Emerson

Sleep is critical when it comes to healthy living. Dr. Rebecca Robbins from Harvard Medical, revealed that unhealthy sleep is rampant in the United States. Adults need 7 to 9 hours of continuous sleep. Unfortunately, a stunning 70% of Americans report getting less than 7 hours of sleep per night, with another 30% struggling with general sleep difficulty weekly - meaning they have trouble falling or staying asleep. Sleep deprivation is a concern because slumber plays a significant



Inactivity throughout the day, for example, can have a negative impact on quality of sleep. Also, bad sleep often results in lethargy and fatigue throughout the day. It can become a vicious cycle.

Understanding the importance of good sleep is only the beginning; we must also consider the factors that support or undermine healthy sleep in our everyday lives, and how that manifests when we travel. Our sleep-wake cycle and the neurological rhythms of our internal clock are regulated by lighting, sound, temperature, and comfort. Dr. Zadeh emphasized that lighting is the most important influence on our circadian clock. In fact, light temperature, brightness, and timing are so powerful they can reset our circadian clock, and disrupt established sleep patterns. Dr. Zadeh advised limiting exposure to bright light and blue light before going to bed.

Furthermore, healthy sleep can be achieved if we are attentive to our environment during the day. For example, based on her research, Dr. Zadeh recommends exposure to bright light during the day. If you work inside, gaining access to a window or going for a walk can provide enough light to assist with healthy sleep patterns. Since it is not always possible to access the outdoors, we can supplement with artificial light illumination indoors.

"Knowing how these environmental elements influence our sleep-wake rhythms, we can engineer our circadian rhythms to align with our health goals." - Dr. Rana Zadeh

role in our ability to maintain a strong immune system. Further, sleep helps regulate appetite, organizational skills, memory, and creative thought. Studies have shown that those who are able to make sleep a priority are more productive, creative, and efficient.

Dr. Rana Zadeh of Cornell University, shared key points from her extensive research; working with a team from architecture, design, sleep medicine as well as clinician, nursing and education experts, Dr. Zadeh emphasized the necessity for creating and maintaining healthy sleep patterns. Dr. Zadeh shared three main takeaways to consider day-to-day:

- Daytime energy and nighttime sleep are closely interconnected
- Environment is a key factor
- Natural biological rhythms are impacted by the environment



Sound also has an effect on sleep. The timing, quality, and nature of the auditory environment are critical determinants for achieving healthy sleep. According to the research, relaxing music or soothing sounds have a positive impact on sleep quality. Dr. Zadeh argues that reducing auditory disturbance is an important part of achieving excellent sleep. Further, according to Dr. Zadeh, "knowing how these environmental elements influence our sleep-wake rhythms, we can engineer our circadian rhythms to align with our health goals."

Assessing the Guest Experience

When it comes to hotel guest satisfaction, sleep is the understudied, yet crucial, part of the equation. Dr. Robbins points out that hotels are much more likely to highlight their menu offerings than discuss the quality of sleep at their establishments. However, it is clear that if sleep is disrupted the over-all guest experience will be impacted. According to Dr. Robbins, "for business and leisure travelers alike, sleep is critical."

In her research, Dr. Robbins discovered that sleep related attributes correlated with poor or good guest satisfaction. Hotel features that have a direct impact on guest sleep include:

- The air conditioning unit
- Bed linens
- Pillows
- Noise outside the guest room

As previously discussed, light is the most powerful element when it comes to sleep disruptions. From Dr. Robbin's research we learn that guests report low satisfaction if curtains are unable to block out light; when this happens it is probable that circadian rhythms have been unsettled. Dr. Robbins points out that hotels are, at their core, in existence to provide a safe space to sleep. While hotels may not emphasize their sleep features, it is noteworthy that failure to provide a comfortable sleep environment undermines the hotel's overall ratings from consumers.

Comfortable linens and pillows - and one can assume a comfortable mattress - also play a part in sleep quality. These basic essentials are, in fact, important, as they ensure guests are comfortable in what is, for many, a foreign environment.

"For business and leisure travelers alike, sleep is critical." - Dr. Rebecca Robbins

Any loud noise that interrupts sleep or does not allow guests to fall asleep will create a negative guest experience. Therefore, even if a hotel has excellent blackout curtains, and the highest quality linens, and pillows, if the auditory environment - the noise of the AC unit or noise from other guests in the surrounding area - is not supportive of good sleep, guests will remember their stay as disappointing.

Of course, when we travel we can have more agency over our experience by bringing our own pillow and pillowcase, by bringing earplugs, and a sleeping mask. This may be preferable to relying solely on hotel amenities.

Hospitality and Wellness Features

Generally, wellness features make a positive difference when it comes to the customer experience. However, the term "wellness" is broad and includes different elements. Dr. Rohit Verma of Cornell University - currently the Founding Provost at VinUniversity in Vietnam -along with colleagues from CIHF, have been collecting data on hotels from various hospitality categories. He specified that wellness refers to fitness centers, spas, and health conscious menus, but goes beyond those amenities and covers tangible and intangible elements, such as:

- Air cleanliness
- Light intensity
- Aroma(s)
- Linens
- Sound(s)

"When we look at the variables (willingness to pay, return, and recommend) that is where we start seeing a much bigger impact of hotel room features and hotel service features." -

Dr. Rohit Verma

Synergizing with Dr. Zadeh and Dr. Robbins' talks, Dr. Verma highlights that comfort is key to guest satisfaction; nonetheless, quality linens and pillows alone are not enough to determine a hotel's reputation. Rather, it is many wellness features combined that will create a prime experience and resulting guest loyalty.

The research is clear on the ways in which wellness features positively impact guest satisfaction. But, surprisingly, in his work Dr. Verma uncovered that hotels with wellness amenities also experience greater employee satisfaction and less turnover - a remarkable finding when it comes to cost effectiveness concerns.

Further, Dr. Verma discussed results from an ongoing study examining the type of commentary guests post on social media throughout their stay. The results, thus far, are intriguing. Typically, the posts are either very positive or incredibly negative (with no in-between) and this speaks to the heart of what motivates guests to share comments. They do not post about positive sleep experiences, but they will share details of a sleepless night.

Essentially, bringing spa-like amenities into the hotel room itself has proven quite successful when it comes to measuring guest satisfaction and loyalty for a particular hotel or hotel chain. For example, creating calm lighting, pleasant aromas, a quiet AC unit, comfortable linens and pillows, and minimal external noise disruptions, maximizes guest satisfaction. According to



Key Takeaway: guests do not choose a hotel based on one small feature, but they are attracted to large concepts that translate into a wellness culture embodied in hotel amenities.

Dr. Verma, when we look at the variables - willingness to pay, willingness to return, willingness to recommend - that is where we start seeing a much bigger impact of hotel room features and hotel service features."

Historically, wellness features were considered trendy and temporary. The research, at this point, shows a different story and guests are increasingly expectant of and drawn to hospitality that incorporates wellness. Travel can often be an exhausting endeavor, whether for business or leisure, and guests are seeking, from various levels and types of hotels, a comfortable space to sleep that is attentive to their overall wellbeing.

A previous trend that has become more entrenched in hospitality culture is the concept of environmental sustainability. In the early 2000s marketing a hotel's sustainability practices was seen by many

as merely a marketing gimmick; hotels were thought to be "green washing" or using the terminology without any real environmental impact. Over time, it has become clear that the effect of sustainability practices results in cost reduction for business, higher customer satisfaction, and a willingness to pay for a hotel with values that align with their customer base. Over time, hotels that embraced sustainability models have



proven to be titans of quality in the hospitality industry. Environmentally sustainable hotels look better, feel better, offer better quality features from top to bottom, and customers enjoy them. They may have begun as trendy, but they have become an entrenched part of hospitality. Even hotels that do not widely advertise sustainability, at the very least, offer choices to help the hotel and guests with water conservation and general recycling.

Similarly, wellness features could change from a competitive advantage to more of a basic expectation that customers will be happy to pay for and enjoy.



BEST PRACTICES

Panelists offer travel tips in support of healthy sleep

- Bring ear plugs and an eye mask for the plane and, potentially, the hotel room
- Bring your own pillow
- Think about what kind of scents and sounds you find soothing
- Embrace your regular routine in the new time zone as soon as possible
- Remember to hydrate while traveling and once you reach your destination
- Try to maintain your energy levels by sleeping during transit
- Remember to engage in stress-reducing activities like walking or yoga
- Keep your thermal comfort in mind when traveling - planes can be chilly, so dress accordingly
- Keep in mind it takes 2 hours for the body to fully awake, and plan accordingly

"Think about what soothes us. Sleep is all about comfort and a consistent schedule." - Dr. Rebecca Robbins



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