
Asleep on the Job

The Causes and Consequences of Employees' Disrupted Sleep and How Employers Can Help

Virgin Pulse

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Table of Contents

About the Authors	3
Executive Summary	4
The Problem	
The Problem with Poor Sleep	6
What's Keeping Workers Awake?	7
The Research	
Solving the Sleep Conundrum	9
Implications of Sleep Disturbances	10
The Struggle With Slumber	12
Circumstances for Sleeplessness.....	13
Effects of Fatigue	15
Changes to Improve Sleep	17
Research Summary	19
Discussion	
Poor Sleep's Toll on Employees.....	21
How Employers Can Help.....	22
About	
Virgin Pulse	23
vielife	23
References.....	24

About the Authors



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Dr. Jennifer Turgiss has over 20 years' experience in senior management roles at national and global health and wellness organizations. Largely responsible for getting Virgin Pulse off the ground, Jennifer joined the company in 2005 and is currently VP, Health Solutions. Dr. Turgiss leads the development and implementation of client best practices and oversees all client-based analytics projects. She is also Director of the Virgin Pulse Institute, working with research partners to contribute relevant information to advance the field of workplace health, well-being and engagement.

In her tenure at Virgin Pulse, Jennifer has overseen various U.S. business functions, including product development, channel partnerships, business development, and all health-related evidence, measurement and policy. Jennifer joined Virgin Pulse by way of Virgin Active where she was worldwide director of Health and Fitness. Before Virgin Active, Jennifer worked for Monsanto's Life Sciences division related to wellness, healthy aging, and complementary medicine. Jennifer has a MS in Exercise Physiology from the University of Colorado and DrPH from Boston University's School of Public Health, where she specialized in social and behavioral sciences in population health management.



Stephanie Allen

Stephanie is a life science graduate with over 10 years' experience in healthcare communications, specializing in mental health, health inequalities, and social marketing. At vielife, Stephanie is the Managing Editor, serving as the lead for ensuring website content quality, including reviewing emerging health research to ensure the health advice remains evidence-based. Before joining vielife, Stephanie worked as a medical writer in the UK and Switzerland. She has previously worked as a freelance speech writer for the Government Head of Public Health in England.

Executive Summary

Key Findings

76%

felt tired many days of the week

30%

felt that they were unhappy or very unhappy with the quality or quantity of their sleep

15%

dozed off during the day at least once per week

Virgin Pulse and vielife conducted joint research to better understand employees' sleep disturbances and offer actionable insight to both employers and their workforce on how to sleep more soundly. In November 2013, data from 1,139 employees from three U.S. companies, all Virgin Pulse clients who had completed the vielife sleep assessment, was pooled. Eighteen participants completed semi-structured phone interviews to supplement the survey data.

Our research revealed that employees chose to participate in the vielife program offered by their employer for three reasons: They were struggling with the effects of a lack of sleep, suffering from exhaustion, or were looking to maintain their good sleep habits.

The survey results concluded that nearly 30 percent of employees were unhappy or very unhappy with the quality or quantity of their sleep. Nearly 76 percent of the employees felt tired many days of the week and 15 percent dozed off during the day at least once per week. The environmental disruptors impacting participants' sleep included room temperature (85.2 percent), their partner (71.9 percent), noise (68.6 percent), too bright light (52.8 percent), mattress (40 percent), and young children (35.9 percent). Some respondents indicated that a medical condition disturbed their sleep (10.2 percent). Employees' participation in the program unveiled four key factors keeping them awake at night: Worry/stress, mental activity, physical discomfort, and environmental disruptors.

The majority of participants were able to address these issues and their habits, improving their overall quality of sleep, by changing their sleeping environment, lifestyle habits, and middle of the night thinking habits. Many participants felt that their employer cared about their health and well-being, at work and beyond, because their companies offered the program.

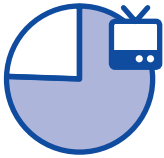
Section 1

The Problem



The Problem with Poor Sleep

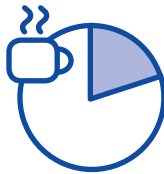
Are Employees Sabotaging a Good Night's Sleep?



75.6%
watch television
before bed

22.1%

drink more than three
caffeinated beverages
per day



81.6%
drank alcohol
occasionally, or
not at all

Nearly 50 million Americans suffer from sleep disturbances that negatively affect their work, home and personal lives, research by the National Sleep Foundation reveals. The NSF's 2008 report, *Sleep, Performance and the Workplace*,¹ found that 29 percent of survey respondents fell asleep or became very sleepy at work in the past month, and 36 percent have fallen asleep or nodded off while driving in the past year.

Insufficient sleep is linked to cardiovascular disease,² premature mortality,³ a weaker immune system,⁴ poorer cognitive functioning, memory,⁵ reaction time⁶ and decision-making.⁷ It leaves those suffering from it with an increased risk in developing type II diabetes,⁸ and increases the risk of obesity.⁹ Poor sleep is also associated with increased irritability, decreased well-being,¹⁰ and depression.¹¹

Lack of sleep isn't only negatively impacting the people suffering from it – it also impacts the companies they work for. Sleep disturbances cause fatigue-related productivity losses estimated at \$1,967 per employee annually.¹² Employee absence has been identified as an independent cost associated with poor sleep,¹³ and tired employees, while present at work, may experience difficulties working to their capabilities. Other studies have linked presenteeism and impaired function to lack of sleep.¹⁴ Tired employees are also at an increased risk of accidents and injuries at work.¹⁵ One study estimated that insomnia-related accidents account for nearly a quarter (23.7 percent) of accident costs.¹⁶ Perceived quality of life and job satisfaction also take a hit when employees suffer from poor sleep. ^{17, 18}

What's Keeping Workers Awake?

Worn out from work-related conditions

There's potential for employers to help employees' suffering from inadequate sleep. Employees are experiencing poor sleep for a variety of reasons, many of which can be split into two factors: Circumstances employees have control over, and those they don't. Factors that are related to poor sleep and its consequences, yet are uncontrollable, include ethnicity, socioeconomic status, gender, and menopause.^{19, 20}

Working conditions have a role in sleep. For employers to have a positive influence on their employees' sleep and their overall well-being, they can either amend working conditions that disrupt sleep when possible, or help employees working in those conditions to better manage their sleep habits. Shift work impairs sleep,^{18, 21} and international travel can also alter the natural circadian rhythms and has been linked to sleep deprivation and excess alcohol consumption, another known sleep disruptor.²² Work type can be a contributing factor, as various industrial roles, such as transportation and manufacturing, are associated with shorter sleep.²³

Sabotaging sound sleep

A larger potential for employers to help, other than amending or addressing the working environment, is to provide employees with increased awareness and information related to the causes of sleep disruption. For example, consuming certain food and drink during the day and evening, like caffeine and alcohol, has an impact on sleep.²⁴ Late night TV watching has been shown to be disruptive to sleep,²⁵ as has a poor sleep environment, too much light or noise, or the wrong temperature.²⁶ Other lifestyle factors, like inactivity or exercising close to bedtime, can also have negative effects on sleeping patterns.²⁷ People have more power over their sleep patterns than they may realize, and addressing these issues with simple behavior changes often results in better sleep immediately.

Section 2

The Research



Sleep Conundrum

Survey Participants

1,139 employees

of three U.S. companies, all Virgin Pulse clients

75% female



Average age:

44 years old

Participants were members of the Virgin Pulse program which supports creating and sustaining healthy habits

Employee Research Participation

The Virgin Pulse Institute research took a deep-dive into employees' problems with poor sleep. All 1,139 survey participants, who were also members of the Virgin Pulse program, had completed the vielife online sleep assessment and decided to enroll in the sleep program "Wake Well". The program consists of six weekly steps, offering personalized advice and support, polls and tracking, a sleep diary, and other tools to help improve sleep quality.

Once participants completed the six steps of the program, semi-structured phone interviews were conducted. Eighteen participants working a variety of job types (administration, sales, marketing, accounting, engineering, and production work) completed an interview. The interviews provided more detailed data in the sleep survey and shed light on new information that wasn't found in the survey. They were guided by a pre-established Interview Guide based on sleep literature and questions from the vielife sleep survey. The participants were questioned about their sleep quality, the effects of poor sleep, and their behaviors during the day and at night that could be impacting their sleep.

Key Areas Investigated



- Employee sleep patterns
- Contributing factors to poor sleep
- The effects of poor sleep
- Why employees chose to participate in a sleep program
- How the sleep program encouraged change
- Employee perception about the sleep program

Implications Of Sleep Disturbances

Participants' Quality of Sleep

80%

of the survey respondents woke up at least once during the night



Over a third woke up twice or more



49.4% awoke for a period of approximately five minutes



30.2% were awake for 10 minutes or longer



23.6% were unhappy with the amount and quality of their sleep



5.9% reported they were: 'Very unhappy, I regularly have sleep difficulties and usually sleep very poorly'

Insufficient shut-eye

Over half of the employees participating in the Virgin Pulse research (54.8 percent) slept more on weekends than they did during the week, although nearly half (46.2 percent) went to bed at the same time or earlier. The majority of participants (64.7 percent) planned to make lifestyle changes in order to help them sleep better.

Eighty percent of the survey respondents woke up at least once during the night. Over a third woke up twice or more. Nearly half (49.4 percent) of these awakenings were for a period of approximately five minutes, and 30.2 percent were awake for 10 minutes or longer. Interestingly, only a quarter (23.6 percent) reported that that they were unhappy with the amount and quality of their sleep, and 5.9 percent were "Very unhappy, I regularly have sleep difficulties and usually sleep very poorly."

Consequences of Poor Sleep

When asked "How often do you feel tired during the daytime?" three quarters of the survey respondents (75.6 percent) reported that they felt tired frequently: Most days or at least once or twice a week. Forty percent reported that they dozed off during the day sometimes (once a month), 15.2 percent reported that they dozed off once a week to once a day during the daytime, and 2.2 percent reported that they dozed off frequently (twice or more daily). Nearly a quarter of participants (27.7 percent) woke up with back or neck ache at least once a week.

Roadblocks to Repose

Nearly three quarters (74.9 percent) of the survey respondents reported working fixed hours. Only 6.1 percent were night shift workers, and less than 2 percent travelled frequently for work. The participants were questioned about what they did in the day and evening to identify any factors

How Often Do You Feel Tired During the Daytime?

75.6%

reported that they felt tired frequently; most days or at least once or twice a week

40%

reported that they dozed off during the day sometimes (once a month)

15.2%

reported that they dozed off once a week to once a day during the daytime

2.2%

reported that they dozed off frequently (twice or more daily)

What's Preventing Sound Sleep?



Temperature
(too high or too low)

85.2%



Their Partner

71.9%



Unwanted Noise

68.6%



Light
(too bright)

52.8%



Mattress

40%



Young Children

35.9%



Medical Condition that
Disturbed their Sleep

10.2%

which could affect their sleep later on. Keeping active has a positive correlation with sleeping well. The participants were more active than the national average, which could be an implication of their participation in the Virgin Pulse program which supports creating and sustaining physical activity habits. Over half (51.8 percent) exercised most days, 38.8 percent exercised once or twice a week, and only 9.3 percent never exercised. These figures are much higher than one U.S. study which found that only 5 percent of people exercised on a given day.³¹ Before going to bed, 75.6 percent of the participants spent time watching television. This mirrored a study by Basner (2009) which found that watching television in the evening may be responsible for keeping people awake.

Food and drink consumed during the day and evening can also affect sleep, caffeine and alcohol for example can both have a negative impact on the quality of sleep. Alcohol and caffeine consumption were relatively low in the survey respondents. Most (81.6 percent) drank alcohol occasionally, or not at all. Only 22.1 percent reported drinking more than three caffeinated drinks a day – coffee, tea, cola etc.

Several factors were identified as being responsible for keeping the survey respondents awake, even if only occasionally. These were:

- Temperature too high or too low (85.2 percent)
- Their partner (71.9 percent)
- Unwanted noise (68.6 percent)
- Light - too bright (52.8 percent)
- Mattress (40 percent)
- Young children (35.9 percent)
- Medical condition that disturbed their sleep (10.2 percent)

The Struggle With Slumber

Why Participate?

Employees opted to participate in the study for three main reasons:

1. Their sleep was frequently disrupted
2. They were suffering from exhaustion
3. They were hoping to maintain their good sleep habits

One participant said,

“ I would wake up multiple times during the night, and then certain nights I would be awake for an hour or two before I could fall back asleep. So, I wanted to go through [the program] and see if there is anything or any tips that I could take out of it that would help me sleep through the night. ”

Three main themes surfaced regarding why participants chose to enroll in the program: Struggling with frequent sleep disruptions — which was the most prevalent theme — suffering with exhaustion, and preventive-minded.

Sleep Disruption

The majority of participants enrolled in the vielifix sleep program because they were waking up several nights during the week for various reasons and feeling the effects of not enough sleep. They wanted to see if there were ways that they could improve their sleep.

“It’s not uncommon to wake up at like three or four o’clock in the morning and be frustrated that I’m awake,” one participant said.

“I would wake up multiple times during the night, and then certain nights I would be awake for an hour or two before I could fall back asleep. So, I wanted to go through it and see if there is anything or any tips that I could take out of it that would help me sleep through the night. Sleep more sound. Get more rested sleep,” said another.

Suffering with Exhaustion

On the other end of the spectrum, some participants expressed that they suffered chronically with exhaustion and were desperately looking for some relief. These participants had a recent tragedy in their lives, illnesses or death in the family, or they were overburdened with activities in their daily lives.

“I’m having to take sleeping pills. I take like a half of an Ambien at night ever since my mother passed away,” one participant said.

Another working mother simply stated: *“I have a three and a half year old and a one year old son, or two very young boys.”* Enough said.

Preventive-Minded

A small proportion (approximately 15 percent) of the participants weren’t currently experiencing trouble sleeping, but were *curious* about how they would score in the assessments or to see if there was anything *they could learn* that would help keep them sleeping well.

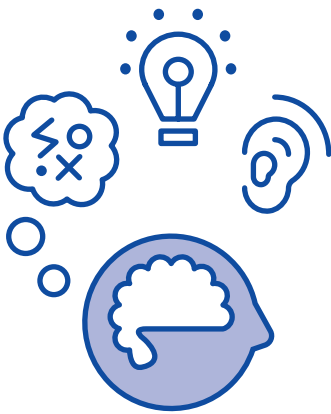
“Well, I just wanted to take it [the assessment]... see how I did. I do normally get the recommended amount of sleep,” said one participant.

Another said, *“Okay, let me see what other things or what things I can learn about in there. And see what it’ll take me through and if there’s something that I can pick up that I hadn’t heard before.”*

Circumstances For Sleeplessness

Top Factors Impacting Sleep

- worry/stress
- mental activity
- physical discomfort
- environmental disruptors



The majority of the subjects lead very engaged and full lives, including responsibilities of full-time work, family, civic and church involvement, or other volunteer activities. Most of the respondents woke very early, between 4:00 and 5:30 a.m. One respondent, a full-time, working mother with children still at home, described her life as having three jobs: One being her professional working life, one being a caretaker of her children and other family members, and the third being duties outside of those two areas of responsibility.

"With [my husband] being a pastor, there's a lot of teaching of classes, getting the curriculum done, doing book work and all of that. So the third job is that part," she said.

Most participants noted that their sleep was disrupted more nights during the work week than on the weekend. Some participants reported problems with falling to sleep or waking too early, but the majority reported that waking up in the middle of the night and not being able to get back to sleep was the biggest problem.

From the interviews, four main themes emerged: Mental activity, worry/stress, physical, and environmental.

One participant said,

“ And I’m awake and then my brain kicks into high gear like, ‘It’s time to wake up.’ ”

Mental Activity

Mental activity was the top reason respondents were lacking sleep. Participants reported that they would immediately start thinking about something as soon as they woke up in the middle of the night. Their mental activity would be around issues that occurred during the day involving problem solving. They reported that, on stressful days or days when something didn't go well, they would lay awake attempting to solve the issues. They also reported that a lot of mental activity was dedicated to just processing the information that passed through their day. The more information they had to deal with in any one day, the more active their brains would be in the middle of the night. Finally, they also found that a lot of nighttime mental activity was involved in trying to remember all of the things that needed to get done the following day.

"And I'm awake and then my brain kicks into high gear like, 'It's time to wake up.'" one participant said.

Worry

Worry was a primary factor contributing to respondents' problems in getting to sleep initially, as well as getting back to sleep when they woke up in the middle of the night. Their worries included family member problems, work deadlines, negative events of the day and missing the alarm clock in order to get up for work the next morning. This type of mental activity is unique, as it didn't involve

any problem solving, information sorting, or remembering. This was just worry or “allowing one’s mind to dwell on difficulty or troubles.”

“I guess if I’ve had a particularly stressful day, I tend to, you know, when it’s time to go to bed, I’ll kind of lay there and just mull it over, and really dwell on things,” said one participant.

Physical

Respondents awoke in the middle of the night for physical reasons, too, including getting up to use the bathroom and waking from hot flashes. These were often reported by the older program participants, but bathroom visits were reported across the group. Being uncomfortable in bed with body aches and pains were also reported, with one participant indicating that the physical symptoms of stress, such as neck and shoulder pain, woke her up.

“Because I’m 49. So new stage in life is, you know, I never know what a night is going to be like. Because I could have a night sweat and that [throws off] the whole night,” one participant said.

Environmental

Factors in the environment were another reason respondents woke in the middle of the night. These included noises from various points in the house, a partner snoring or tossing and turning in the same bed, small children making noise, pets, and the television in the bedroom. Other environmental factors included getting up to check on other people like children or elders, and having lights on in the bedroom – primarily from electronic devices.

“It’s all environmental. It’s my kids or my husband or my dogs, or the heat, air, which is all attributed, again, to my husband. So, yeah, if it’s anything, it’s just environmental stuff, whether it be a kid waking up or a kid coming in there, or my husband has the air on too high or the heat on too high, or he’s having a hard time sleeping and keeping me up... It’s usually not anything within my being able to handle stuff. It’s usually something external,” said one participant.

Effects Of Fatigue

Effects of Sleep Deprivation

- Physical effects
- Cognitive abilities and productivity at work
- Productivity outside of work
- Mood
- Ability to manage stress

.....

A participant said,

“ If it’s a really, really bad night with sleep, I’ll tend to find myself like not drifting off, but like maybe losing concentration big time at work, where all of sudden I’m thinking about something non-work related and not really quite sure how I got there. ”

.....

The participants openly acknowledged the effects of inadequate sleep on their lives, with four themes emerging: The physical effects, effects on their cognitive abilities and productivity at work and outside of it, their mood, and their ability to manage stress.

Physical effects

The physical effects of inadequate sleep included a noticeable drop in energy levels, particularly in the afternoon and evening. The lack of physical energy in the late afternoon and evening resulted in being less likely to exercise, be physically active or to participate in any other activities after work. Participants reported that being tired in the evening affected playtime with their children and that they often fell asleep in a chair while watching TV. In the afternoon and evening, a lack of physical energy contributed to them foregoing a stop at the grocery store on their way home from work to buy healthy foods. If they already did have healthy food to prepare at home, they reported being too tired to cook it, and would instead pick up fast foods such as pizzas on those evenings where they were physically tired. One participant reported skipping dinner when tired and instead of eating, heading straight to bed after coming home from work.

Participants reported eating differently throughout the day when they were tired, as well. They tended to eat more fast food or processed foods, drink more coffee, and eat more sugary foods and more snacks. Some participants expressed that they did this in an attempt to gain energy, while others said they craved more sugary foods when they were tired.

Participants reported being sleepy throughout the day, increasing their likelihood to doze in meetings or have trouble staying awake during their commutes to and from work. Other physical effects reported included increases in physical pain, primarily headaches and a muscle aches from neck and shoulder strain, which was all associated with being under more stress when tired.

Cognitive effects

Participants reported “fuzzy headed thinking” when they were tired. This was further articulated as having difficulty concentrating at work, as being slower to problem solve issues, and having difficulty remembering how to complete tasks or remembering things they were supposed to do, all of which lead to decreased productivity at work.

“Maybe it might take me to do stuff like a little bit longer because either my brain is a little cloudy I just might forget an easier way to do it or just take the longer way to do something,” said one participant.

In Their Own Words

Among many other impacts, **lack of sleep leaves employees less focused on the job** and unable to perform at their peak.

“And I come in here in the morning and it’s kind of hard to get motivated. I’ll be yawning and carrying on and kind of drag for an hour or so before I’m really probably engaged and back doing real performance type of work I would say. So it will be easy for me to just kind of lag around, drink some coffee, walk around, talk to people, or sit at my desk and read Internet news rather than actually work.”

.....

“And the other thing that I noticed: When I go through the period where I have more lack of sleep, I feel more scatterbrained, like I have all of these things to do. And normally, I’m very organized and prioritize and will at least write a list, and everything goes out the window and I start forgetting to do things or bring this in the morning or things like that. And that really bothers me. I hate it when I drop a ball because I forgot something.”

.....

“If it’s a really, really bad night with sleep, I’ll tend to find myself like not drifting off, but like maybe losing concentration big time at work, where all of sudden I’m thinking about something non-work related and not really quite sure how I got there.”

.....

“Yeah, because then I’ll sit here and the mind just, you can’t focus as well.”

.....

“I think there is a slow-down, in terms of getting tasks done, just because, again, your attention span isn’t fully there. You might not be as with it.”

Mood

The majority of participants reported that they were more irritable or had less patience when tired, which was experienced at home and in the workplace.

“[I would] blow up at the wrong thing or you blow up at the wrong kid or something. And you just go, oh, man. I should have been able to handle that one,” said one participant.

“Yeah, probably with patience, especially with my little guy, because he’s into everything. So, I tend to lose my temper a little bit quicker with him, trying to grab everything that he can and climbing all over everything,” another participant said.

“I probably have got a shorter fuse, a little grumpier,” said a participant.

Stress

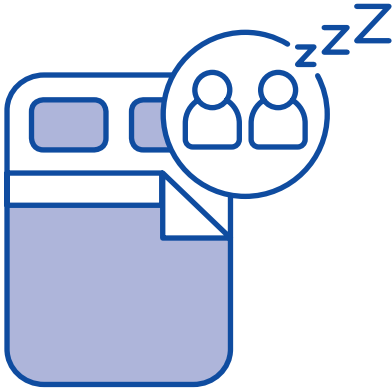
Participants found it harder to cope with stressful situations when they were tired, in comparison to when they were not. They reported being more reactive to stressful situations, and had an awareness of the bilateral relationship between stress and sleep. The more stress an individual deals with, the poorer the sleep, making it more difficult to cope well with stressful situations.

“Like I said, worry. When I’m stressed out I worry and I’ll go to sleep but I won’t stay asleep,” said a participant.

“Yes, when I sleep more, I would say so. You’re more rested. I think you’re better equipped to deal with whatever comes your way. Whereas, if you don’t have enough sleep, or you don’t have enough energy to deal with it, I think it just stresses you out all the more,” a participant said.

Changes To Improve Sleep

Changes For a Restful Night



Environmental

Lifestyle

Middle-of-the-night
thinking habits

The vielife online sleep program is a self-paced learning program. The experience with the information provided in the program was partly dependent upon how much participants already knew about sleep. Some participants reported that it was a good reminder of things they had heard before and others reported learning new information. While one participant expressed difficulties in putting what she had learned in to practice, most participants were able to make changes. The three primary themes participants changed as a result of their participation were environmental, lifestyle, and their “middle of the night” thinking habits.

Environmental changes

Some participants felt that they were stuck with a lot of environmental factors that they couldn’t change, something particularly relevant among parents of young children. They did their best to manage other lifestyle factors that help, such as their diet and their exercise.

Many changes were made including, moving a dog that was previously sleeping on the bed to a kennel at night, wearing earplugs, running a fan in the bedroom for added white noise, and decreasing light in the bedroom –primarily from electronic devices.

“Well, some of it was also talking with my wife about making sure that she, if she’s going to read, that she goes and reads somewhere else, because one of the things that would happen is, she would read in the bed and just the rustling of paper would wake me up, you know?” one participant said.

Lifestyle habits

Participants reported getting more exercise, but being mindful not to exercise too close to bedtime. Several dietary changes were also made, including cutting back on caffeine, eating smaller meals at dinner, preparing healthy foods on the weekend to eat during the week, and limiting water intake in the evening. Participants also reporting cutting back on mental evening activity, including avoiding Facebook and emails after a certain hour, being mindful about creating a “wind-down time” before bed; watching TV, reading, deep breathing, praying and imagining a beautiful place before going to sleep.

“I’ve been walking, and the more I walk the less I have issues with sleeping. The more activity I get, the less sleep issues I have,” said one participant.

“I cut out any sugars, dairy, things like that. But I think the sugar is probably what did it, because I was constantly up and down with sugar throughout the day. So I get a feeling that affected my energy levels and whatnot. And I just sleep better,” another said.

“And I guess I thought checking my email and stuff — I can’t say relaxing, but I didn’t know that it would be over-stimulating and contribute to things. So, I did try to cut that back and not do that so much right before bed. I would do it earlier in the evening if I could,” said a participant.

Modified middle of the night thinking

Many participants reported using tactics to help them stop their mental activity and worry when they did wake up in the middle of the night. Tactics included putting thoughts in a “box” and not “opening” it before morning, repeating words when thoughts come in to their head, counting, and thinking of something positive.

“You just count, you know, just do this monotonous thing over and over again, and it’ll put you right out,” one participant said.

“I basically tell myself to stop thinking, there’s tomorrow. I just keep saying, so that my brain stops trying to go other places and think too much. It’s like, “Stop thinking, stop thinking,” and I just keep repeating that to myself, because, then, as long as I’m repeating it, I can’t think of anything else,” said a participant.

Participants reported not having a complete change in sleeping, but noted that the little changes they made did make a difference.

Research Summary

The survey results concluded that nearly 30 percent of employees felt that they were unhappy or very unhappy with the quality or quantity of their sleep. Nearly 76 percent of the employees felt tired many days of the week and 15 percent dozed off during the day at least once per week. The primary environmental disruptors were: temperature too high or too low (85.2 percent), their partner (71.9 percent), noise (68.6 percent), too bright light (52.8 percent), mattress (40 percent), and young children (35.9 percent). Some respondents indicated that a medical condition disturbed their sleep (10.2 percent).

The qualitative interviews revealed that there were three reasons that employees chose to participate in the sleep program. The majority were actively *struggling* with the effects of poor sleep, a few were *suffering from exhaustion*, and others desired to maintain good sleep habits to *prevent* loss of sleep. Regarding what was keeping them up at night: Worry/stress, mental activity, physical discomfort, and environmental disruptors. Consequences to those lost hours of sleep during the night included physical effects — primarily due to a lack of physical energy, — effects on cognitive abilities and productivity at work, productivity outside of work, mood, and the ability to cope with stressful situations.

Employees made changes as a result of participating in the online sleep program, including their sleeping environmental, lifestyle habits, and “middle of the night” thinking habits. Employees appreciated the fact that their employer made this program available to them. Many would not have pursued other remedies themselves, but would instead have continued trying to cope with tiredness as best they could, had their employer not made the sleep program available to them. Additionally, employees perceived that their employer cared about their health and well-being both in and outside of work by offering the program.

Section 3

Discussion



Poor Sleep’s Toll On Employees

Support Well-being, Boost Morale

Many employees appreciated that their employer made this type of program available to them – and may go on to even love their employers for it. Some expressed that they wouldn’t have sought out other program options, but instead would have just coped with tiredness the best they could.

“Well, and it shows that they are interested in my well-being. I don’t know that they know that that was part of it but, that was something that was needed.”

.....

“And [my company] is just a great company all the way around. They really are concerned about our health and well-being, at work as well as in our personal lives. So I appreciate that.”

.....

“You know what? I love it. I love that they did this whole program.”

.....

“Oh, I love it. They are really good to us. Yeah, I really like that. Because they care and they take care of their people, which is really nice. Because, you know, there are not a lot of companies that do that.”

.....

“I love that it was offered to employees.”

.....

“I mean [my company] is awesome.”

Life in the 21st century provides ample opportunity to live a full, engaged life. However, engaging in a career, family, personal avocations, and community involvement can take a toll on sleep. Frequent nights with disrupted sleep contributes to low energy levels throughout the day, impacting individuals both at work and beyond. This leaves employees with less energy to complete physical and mental tasks, poorer concentration and decision-making, less patience with coworkers and family, and less ability to cope with stressful situations. Employees participating in the Virgin Pulse research perceived the bilateral relationship between stress and sleep: Tiredness decreased the ability to manage stressful situations and stressful situations decreased the likelihood of getting a good nights’ sleep. The relationship between poor sleep quality or quantity and mood, anxiety and overall well-being has been reported elsewhere in literature.¹⁰

Poor sleep also affects other healthy behaviors. Participants reported that they slept better on days when they exercised. However, on days when they were tired, they reported difficulty with maintaining an exercise program, eating more calories than usual, and choosing processed or fast foods more often than on days when they were not tired. Many employees try to cope with tiredness as best they can by drinking more caffeinated beverages, eating more frequently, and sleeping more on the weekends in an attempt to catch up on sleep.

The association between obesity and insomnia has also been reported in literature.³² In fact, a recent study found that as little as five days of insufficient sleep can alter energy metabolism and reduce dietary restraint, particularly in women. The study also found that returning to adequate sleep decreased energy intake, especially fats and carbohydrates, and led to weight loss. This study demonstrated the role that sleep plays in energy metabolism as well identifying the behavioral mechanisms by which insufficient sleep may contribute to overweight and obesity.⁹

How Employers Can Help

The benefits of a good night’s sleep, or several good nights’ sleep, can be quickly realized.

Offering sleep programs alongside other programs like stress or weight management can help maximize their benefits.

Employees are likely to feel positively toward their employer for providing programs that help them improve their sleep.

Employers can help employees improve sleep by developing sound policies and offering programs focused on improving sleep habits. Policies that ensure workers at risk of sleep deprivation – shift workers, frequent overtime workers, and others – are extremely important. The U.S. Department of Labor’s Occupational Safety and Health Administration (OSHA) provides guidance and resources for employers for many health and safety related issues, including sleep and fatigue.³³ Educational and behavioral programs are another important offerings that employers can provide to help employees improve their sleep habits. Employees participating in the Virgin Pulse research were grateful that their employer provided a sleep program, perceiving this offering as an indication that their employer cared about their health and well-being at work and beyond.

A well-rested person has the physical and mental energy needed to change or maintain other healthy lifestyle behaviors, like physical activity and healthy eating. Sleep programs should be offered alongside, or as a component of, other lifestyle programs to maximize the benefit from those programs – particularly stress or weight management programs.

Online programs, like the vielife sleep program, create awareness and outline changes in sleeping environment and lifestyle habits that promote a good night’s sleep. The program participants found that small changes in their environment and lifestyle improved their sleep habits. The benefits of a good night’s sleep, or several good nights’ sleep, can be quickly realized.

Insufficient sleep and its consequences can contribute to a broad range of detrimental effects for the employee and the company they work for. This can range from disastrous consequences including loss of life and bodily harm, to negative economic effects to both top line revenue growth and bottom line performance.

Employers will still need employees to work shifts and travel internationally. Employees will still need to take care of children in the middle of the night and provide their assistance to friends, loved ones and their community. However, employers can review their policies and make improvements, where possible. They can also address this issue by arming employees with information and behavioral programs that help them make changes in their lives where they can. In this investigation, employees took action to modify their sleeping environment, their exercise, eating, and drinking habits, and their ‘thought activity’ when they found themselves awake in the middle of the night. Importantly, small changes in sleep habits can yield benefits in a very short period of time.

Employees are likely to feel positively toward their employer for providing programs that help them improve their sleep. The employees in this investigation perceived their employer to care about their health and well-being both on and off the job. For employers who value strong employee relationships, a simple solution such as a sleep program can help instill the belief that the employer is invested in the well-being of their employees.



About Virgin Pulse

Virgin Pulse, part of Sir Richard Branson's famed Virgin Group, helps employers create a workforce with the energy, focus, and drive necessary to fully engage at work and in life. With its award-winning, online platform, the company fosters healthy daily habits and sustainable behavior change that help employees thrive at work and across all aspects of life. Unlike narrowly-focused employee health and engagement solutions, Virgin Pulse is a hub of consumer-focused strategies and innovative tools that set the foundation for a company's engagement efforts. More than 250 industry leaders representing 1.5M+ employees have selected Virgin Pulse's programs to reinvigorate their workplace. Learn more at www.virginpulse.com



About the Virgin Pulse Institute

The Virgin Pulse Institute is an evidence-based organization that puts research to work to help employees and companies thrive. It conducts research and advances knowledge on various workforce topics including health, well-being, and employee engagement. Rather than solely focusing on traditional approaches and cost-savings, it collaborates with leading researchers and other organizations to identify scalable, data-driven, consumer-centric solutions to the top workplace issues that companies face today. The Virgin Pulse Institute was founded in 2014 by Virgin Pulse as part of the company's commitment to help organizations create a workforce with the energy, focus, and drive needed to engage at work and in life.



About vielife Ltd.

vielife provides global health and well-being solutions that drive business improvements for organizations. It empowers organizations to monitor and improve the health and wellness of their people through assessments, personalized reports and lifestyle management services. The **vielife** online portal acts as a global gateway to a world of health improvement services. It can link into existing health and wellness services, creating a wellness center that drives positive change across the globe. For more information, visit www.vielife.com

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