



THE IMPORTANCE OF SLEEP

BEST KEPT SECRET TO A HAPPY
AND HEALTHY LIFE



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CHAPTER 1:

THE IMPORTANCE OF SLEEP



The Importance of Sleep

It's exciting to see physical and mental health become trendy. In almost every sense, people are living healthier lives. This is why it's puzzling to see the troubling trends that accompany sleep, and how much people are neglecting it.

As far as essential biological functions go, sleep is one of the most crucial - and unfortunately, one of the most overlooked.

Sleep is just as critical a function like breathing, and, like breathing, it is a function most people don't spend time thinking about. When you do something repetitively, day after day, with some regularity in regards to schedule, you don't really stop and think about it. Sleep, however, is unique from something like breathing or blinking- it's a biological function that's in a class of its very own. It works in a much more nuanced way, and both the process and its effects require understanding.

The only constant in a world that's always changing

When we look at all the things that have changed with evolution, sleep remains the single non-automated aspect of human life that we conserved in its entirety. Every other aspect of human life, from the way we eat to our form of shelter to the way we interact with each other, has changed drastically, but sleep has been the constant.

For as long as humanity has existed, our system has needed a period of restful recuperation to function properly.

The phenomenon of sleep is ubiquitous across the animal kingdom. Some animals indeed have incredibly unique sleep cycles; certain species of birds can go months without sleep, while some animals such as dolphins can go to sleep with only one side of their brain, alternating between the sides to rest one half while the other stays fully awake. However, sleep cannot be avoided entirely in the animal world.

Scientists have made significant progress in understanding the effects and necessity of sleep, but in many aspects, it remains a mystery. Why does the body require such a long period of slumber to rebuild? Why does this period vary so greatly from animal to animal? What causes dreams, and what is their purpose? There's a great deal we still have to learn about the multiple facets of sleep, but one thing is clear: sleep is both critical to every aspect of our wellbeing and often neglected- especially in the modern world.

Circadian Rhythm

The science behind sleep lies in something called the circadian rhythm. The circadian rhythm is a natural process present in everything from animals to fungi to plants. This process is essentially a daily cycle that itself regulates the sleep-wake cycle (or its respective equivalent in plants and fungi) and is driven at its core by things like temperature and light.

The circadian rhythm process causes many physical, mental, hormonal, and emotional changes throughout the day. Sleep, in particular, is an example of the light-related circadian rhythm. Other examples of the circadian rhythm include fluctuations in body temperature and hormone levels throughout the day. In humans, the circadian rhythm is controlled and synchronized by something called a biological clock.

Biological Clock

Our biological clock is what controls the circadian rhythm. This biological clock is an internal tool that manages every aspect of the circadian rhythm. For example, it is the internal biological clock that produces sleep hormones that "tell us" when it's time to sleep, helping control that aspect of the circadian rhythm. Many people with stable sleeping schedules often find themselves waking up at the same time every day with no need for an alarm clock - this too is because of their biological clock.

Biological clocks can change based on location, light, and change in the environment. Whenever you take a flight across several time zones, you may be jet lagged for a couple of days, but once your biological clock "resets", you, along with your circadian rhythm, adapt to that environment. Likewise, people living in the far north or far south, where daylight can vary extremely based on the season, have biological clocks that have adapted to this.

CHAPTER 2:

WHAT HAPPENS WHILE WE SLEEP?



What Happens While We Sleep?

Though we may not realize it, sleep is actually a very active time for our organisms. While we lay there dreaming, with virtually no sensory activity, our system is doing a variety of different things. These things have to do with both our physical and mental health and are critical for our health.

1. Physically

Sleep is a time when the body releases many hormones. These hormones are countless; in children, for example, growth hormones are among the many that the body releases during sleep. In adults, hormones linked to reproductive health are secreted.

Other hormones that the body produces during sleep can affect things such as weight and appetite; ample evidence suggests that lack of sufficient sleep plays a considerable role in being overweight.

In addition to the hormones that the body releases, sleep is a pivotal aspect for many different aspects of overall physical health and recuperation. The skeletal system requires adequate sleep for bone marrow health, which dramatically affects overall bone strength and blood cell production. Our immune systems also depend on rest in order to function correctly- not only does a good night's sleep help the immune system stave off illness, but most people's instinct to go to sleep when they're sick is grounded in biology; our bodies can recover much better when we're well-rested.

If you're somebody that likes working out, you probably already know a thing or two about nutrition and overall health. But it's not all about weights and diets- getting adequate sleep is crucial to see results. Obviously, not being fatigued helps with our performance during exercise, but a healthy sleeping schedule actively helps build muscle mass.

Without enough sleep, your muscles don't get their glycogen replenishment, which is crucial for muscle mass. One study performed on individuals on the same exercise regimen and diet can have up to a 60% discrepancy in muscle mass when they don't get enough sleep.

2. Mentally

These present only a fraction of the physical effects of sleep- its consequences are all-encompassing; if there is a bodily function your body performs, you can almost be sure that sleep affects it. But these consequences aren't just physical, as sleep also affects us on a mental level.

Everyone has felt the mental results of a poor night's rest. We simply cannot focus as well when we aren't fully rested or have to perform a task continuously for a prolonged period of time. But there's another reason that sleep is crucial for the mind- it helps us process, store, and consolidate all the information we've experienced throughout the day. It's during sleep that your mind organizes memories, getting rid of all the unnecessary information and adequately storing all relevant and helpful information.

Neglecting a proper sleep schedule on a long enough timeline has been proven to cause more severe and chronic mental disorders, including anxiety disorders, depression, and, in more extreme cases, even psychosis.

Of course, some people have health issues that disrupt sleep, but many people are fully capable of having a proper sleep schedule and simply neglect to do so.

CHAPTER 3:

HOW DOES **SLEEP** AFFECT US?



How Does Sleep Affect Us?

We can talk about hormones and bone marrow and glycogen all day, but what are the actual results of sleep (or lack thereof)? What do we stand to gain or lose from sleeping well or sleeping poorly? What are some tangible results in our performance?

Firstly, it's important to note that both getting too little and too much sleep are problematic. It's important to understand this because both sleeping deprivation and oversleeping are two sides of the same coin, and bring with them their own respective set of issues. Therefore, when people discuss the effects of "unhealthy" sleeping habits, it's essential to distinguish the two main ways sleeping habits can be unhealthy.

How oversleeping affects you

Oversleeping is somewhat less of a concern, only due to it not being as prevalent as sleep deprivation and due to it having relatively fewer health effects than sleep deprivation. Nevertheless, it's nothing to sneeze at.

On a day to day basis, oversleeping can cause people to feel lazy, sluggish, and irritable. People who sleep more will have more sleep inertia- which means the period of grogginess that comes after sleep (the period between sleep and full wakefulness) will last much longer. This is why neglecting sleep during the week only to "catch up on some sleep" during the weekend is doubly harmful- not only are you less productive during the week but sleeping in on the weekends will make you less inclined to get anything done at home on the weekend as well.

With that in mind, it's important to note that chronic oversleeping is usually due to underlying medical issues. If you're an otherwise healthy adult who regularly doesn't feel well-rested on 7-9 hours of sleep, it's definitely something to speak to a medical professional about. It's still a problem, but it's usually not an issue brought on by negligence or unhealthy decision making in the same way that not sleeping enough is.

How sleep deprivation affects you

The bigger issue to address is not getting enough sleep. This is an epidemic that plagues most of the world. It's essential to understand the results of it in layman's terms- how you feel, how you perform, how productive you are.

Insufficient sleep can be a result of different forms of unhealthy sleeping habits. Sometimes people have sleeping issues due to medical concerns, and, again, it's probably best to speak to a medical professional to resolve that. But negligent or irresponsible sleeping behaviors mainly happen in two ways: sleeping on a regular nightly schedule but not getting a sufficient amount of sleep each night or not sleeping for prolonged periods followed by a long period of oversleeping. Both tend to have the same adverse effects to varying degrees.

1. Lack of sleep can make you moody

The first and probably most imminently noticeable effect of sleep deprivation is being temperamental or irritable in general. There's empirical evidence to support that an inadequate amount of sleep- even for one night- can cause irritability, anger, anxiety, and sadness in people. More importantly, the same evidence shows that people feel substantial improvement in their mood once they begin getting enough sleep. Even without the ample evidence to support this, this is something we've all felt after not getting enough sleep. We find ourselves getting annoyed more easily and increasingly more irritable after a night of insufficient rest.

As you can imagine, these effects only get worse when we continue to neglect sleep day after day. And as stated previously, if someone neglects sleep for long enough, they are more prone to developing severe mental disorders related to anxiety, depression, and stress.

2. Insufficient sleep affects your brain's ability to function properly

In addition to irritability and moodiness, sleep deprivation affects cognitive skills and our ability to perform and be productive. Cognitive skills across the board take a blow when we don't get enough sleep; anything from vigilance to reaction time to our ability to do simple addition has been shown to suffer when we don't get enough sleep. There's hardly an area related to cognition that doesn't suffer when we sacrifice sleep.

It's often an evil cycle that people get caught up in: sacrificing sleep due to work, work performance suffering from the lack of sleep, work piling up (along with stress), due to which sleep suffers.

It's crucial to be aware of the fact that one often causes the other, and being aware of this is the first step to breaking out of this cycle in order to restore balance to our lives.

3. Sleep deprivation can put you or others at risk

Poor performance is obviously not desirable in any case; in both our professional and personal lives, we all want to be at the top of our game. But there are times when things can go from merely unfavorable to downright dangerous. The classic example of this is driving; we're always taught that it's better to pull over if we're sleepy, even just at the side of the road, and catch some shut-eye rather than continue driving fatigued. At the wheel, even falling asleep for one second can be the difference between life and death for the driver and all the other drivers, passengers or pedestrians around.

But this isn't limited to driving, and the consequences can be far more disastrous than a car accident. Human error can play a fatal role for dozens, hundreds, or even thousands of people in some lines of work, and the chance of human error increases exponentially as our cognitive abilities fall.

Summary



1. Lack of sleep can make you moody



2. Insufficient sleep affects your brain's ability to function properly



3. Sleep deprivation can put you or others at risk.

CHAPTER 4:

HOW MUCH **SLEEP** DO YOU REALLY NEED?



How Much Sleep Do You Really Need?

So we get the effects of sleeping too much or not sleeping enough- but how much sleep is just right? For this, it's essential to understand the types of sleep we get. There is non-rapid eye movement sleep (NREM sleep) and rapid eye movement sleep (REM sleep). Combined, these two distinct stages make up for an entire night's sleep. Throughout one night's sleep, stages of REM and NREM sleep alternate 4-6 separate times and last an average of 90 minutes. However, as the night turns into morning, the stages tend to get longer and longer.

Quality over simply quantity

The most important parts of these two stages are the deep sleep stage of NREM sleep and the REM sleep in its entirety. Deep sleep (otherwise known as slow-wave sleep) is when our bodies repair physically. REM sleep is responsible for our mood and energy. The most unimportant are the transition stages from NREM into REM sleep, but that is an unavoidable process known as light sleep.

Basically, it's not the total amount of sleep you're getting; it's the quality of that sleep that you get that really matters.

Most adults need anywhere from about an hour to just under two hours of deep sleep a night total, throughout the various stages. They also need about 95 minutes to two hours of REM sleep total in one night. Light sleep is by far the longest part of anyone's sleep cycle, accounting for 4.5 to 5 hours of sleep every night as our bodies transition from NREM to REM sleep. And though it's considered the least vital in terms of function, scientists do still believe it's good for us.

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Therefore, the recommended amount of sleep for a healthy adult is 7-9 hours.

Some people may sleep 9 or more hours and still feel not rested, and that's because they aren't getting the deep rest or REM sleep they require. There can be several medical issues linked to this, and, as stated previously, is best to bring up to a medical professional.

Scientists did discover a gene that allows people to function properly on 6 hours of sleep- but that gene is estimated to be in just 3% of all people. So chances are you need at least 7 hours a night- and definitely no less than 6.

CHAPTER 5:

HOW DID WE START NEGLECTING SLEEP?



How Did We Start Neglecting Sleep?

Sleep and health are obviously very closely linked to one another. And as we have continued to progress and develop, the scientific understanding of the importance of sleep has also progressed. Ironically, however, most people have grown to neglect sleep and trends show that a growing number of people aren't getting enough sleep. Our previous blog covered this trend, but what's interesting to note is that this is a trend in developed countries more than anywhere else.

Historically, of course, sleep was always tied to simply daylight and darkness. Once it was dark, it was time to find shelter and get a good night's rest. When life became more about farming than hunting and gathering food, working after dark was still virtually impossible, and so people would have to turn in for the night once darkness fell. Not to mention the physical toll that such work would have on people, a toll that demanded adequate sleep in order to work properly.

Studies from historians have shown that in pre-industrial society, many cultures in various areas of the world had what is now called biphasic sleep. They would have two large chunks of sleep at night, with a period of productive wakefulness in between. For example, they might turn in at 9 PM, sleep until 1 AM, wake up and read, sow, or do low-skill chores around the household for two hours or so, then go back to sleep for another 4 hours. Many other cultures slept much as we do today, with one large chunk of sleep at night with no period of wakefulness in between.

What is clear, however, is that a healthy amount of sleep was ubiquitous for nearly all cultures in pre-industrial society. There are clear examples of this today, and studying people who lead pre-industrial lives to this day can tell us a lot about sleeping habits and how they've changed. A study on the Old Order Amish found that they get anywhere from 7.5 hours to 8.1 hours of sleep (depending on the season)- compare that to the 6.8 hours the average American gets. Other studies of hunter-gatherers in Africa show that only 2.5% report trouble sleeping, a number that is around 20-30% or higher for varying countries in the west.

How did modern technology change our sleep patterns?

The industrial revolution completely changed the lives of most people around the world. We got electricity, advanced technology, and we changed from a rural agricultural lifestyle to an urban one. The urban lifestyle includes different kinds of work and has changed in its own right since the conclusion of the industrial revolution. But whether its factories or offices, it has been a massive change for humanity, and sleep has continuously suffered- especially in recent decades.

The same Gallup poll that found Americans slept an average of 6.8 hours today also found that Americans in the 1940s got an average of 7.9 hours of sleep.

Many factors contribute to this. These advances have made it possible to work or even do countless leisure activities after dark. This, of course, is a wonderful thing, but it's also a double-edged sword which has caused a tangible rise in sleep deprivation for people. And you don't have to be in an advanced and wholly developed community to see these differences. Even something as simple as lighting at one's home can cause them to get less sleep.

Basically, the key difference between now and 10,000 or 300 or even 70 years ago is the rapid pace at which technology is advancing. The abundance of technology and the exponential speed at which it advances is single-handedly the biggest factor here. But that's a multifaceted issue- we can't simply say "we have electricity, therefore we sleep less".

There are multiple ways of having modern technology that have changed our sleeping habits:

1. Nature of work

We've gone from the fields and the outdoors to the stores, factories and the offices. Of course, many people still do labour-intensive work such as construction or farming, but most of us are working in a totally different environment today than the humans have for the majority of history. The United States concluded in a report that one out of five Americans works in only ten occupations, nine of which are service-based.

Most people today work jobs that aren't dependent on natural daylight, and can pretty much do the job whenever. Of course, most companies tend to have a 9-5 schedule (or something similar), but that isn't always the case. If the workload is too heavy or you're behind, you can stay late to finish it. You can work from home in the evening. Some jobs even require night shifts. Cashiers are the second most popular occupation in the States, and they often have to work graveyard shifts.

Work, in general, has become a lot more flexible. That usually is a good thing for most of us. Save for some extreme exceptions, we are no longer limited by weather, daylight, or distance in being productive. But this has had a downside where we've grown to neglect one of the most crucial aspects of our lives.

And as we've mentioned previously, neglecting sleep can make us tangibly less productive, essentially negating the positive effects of having a more flexible work schedule.

2. Endless entertainment

So (hopefully) you aren't overworked, and rarely have to work in the evenings. Great! So what do you do with that time instead? Read? Watch something online or on TV? Mess around on your phone? Some people work out in the evenings after work, but even then they are likely to do one of those things after their workout.

But the truth is, we shouldn't be in front of a screen any time in the last two hours before bed as they keep our minds active and alert.

Studies have consistently shown a direct correlation between electronic use and both a later bedtime and shorter total duration of sleep. Most of these studies have focused on children, but the conclusions they've reached apply to all age groups. Screens have been proven to be specifically bad for sleep, as the blue light common in all LEDs has negative effects on our circadian rhythm and has been linked directly to insomnia.

That being said, doing anything too active (physically or mentally) close to bedtime is detrimental to a good night's rest. Phones are the most egregious example of this due to their convenience, addictive quality, and blue light emission, but they are among many examples of activities to avoid in the last hour or so before bed. That time is to unwind and get ourselves ready for bed, and doing so can save us from a lot of tossing and turning.

3. Light exposure

You're probably wondering if this is a typo- or may be wondering if we started to write a longer phrase but forgot to write the rest. But no, you read it right. The truth is, lighting, and how prevalent it has become in every environment of our lives, is actually making us more sleep-deprived. This ties into the last two points- of course, without light we wouldn't have more flexible work hours, and lights are the foundational aspect of screens. But the light in and of itself has been linked to a worse night's sleep.

Dr. Matthew Walker- a neuroscientist and professor at University of California Berkeley- is one of the leading researchers in the field of sleep and the most zealous proponent of getting your eight hours every night. He suggests not only avoiding screens or any other overly stimulating activity before bed, but even dimming the lights in your house down halfway, if possible. It turns out light, in general, can suppress the secretion of melatonin, a hormone crucial to regulate sleep. As he puts it, the industrialized world today is "darkness deprived".

In fact, a study on a community of rubber tappers living in a very remote area of the Amazon found that those with electricity at their homes slept 7.5 hours on workdays and 8 hours on days off. Those without electricity at their house in the same community got 8.8 hours of sleep on days off and 8 hours on workdays. This is a significant discrepancy considering all else is essentially equal among these people, and the community is completely homogenous.

4. *Attitude shift*

This one encompasses the entire idea behind this series of blog posts. Why and how did we come to neglect sleep so grossly? And why isn't this an issue that's spoken about more often? The truth is probably complex and multifaceted, but there's some clear examples of this change in attitude that are very clear and extremely unacceptable.

For example, the corporate culture of being a workaholic. It's become cool to be overworked, to pull late nights at the office, or to neglect sleep (or many other aspects of life) for work. "You can sleep when you're dead," these people say. For them, sleep isn't a crucial aspect of life, but an obstacle that separates them from the most crucial aspects of their lives-work. And this is an attitude that's becoming ever more prevalent among workers in the industrialized world.

It also doesn't help that these views are often enforced by some ridiculous takes- often from otherwise fairly reputable sources. Countless articles float around online about sleep. One from the World Economic Forum boldly claims that "A good night's sleep is a relatively modern concept," before bizarrely asking "but is it the right one?". Another article from the BBC picks apart "The myth of the 8-hour sleep".

In fact, both centre around the discovery of segmented sleep. However, the headlines are (surprise!) sensationalist and misleading, and the conclusions they draw from the previous tendency of some people to utilize segmented sleep is a stretch. Even segmented sleep combined for a total of eight hours and was definitely "a good night's sleep". And our replacement of the 10-11 hour block in the night consisting of two 4 hour periods of sleep with one 2-3 hour period of wakefulness in between with one 8 hour block of sleep is logical considering circumstances.

Though there are many other factors at play here, these four issues, broadly speaking, represent the main cause of modern sleeping issues. We already know the effects of sleep deprivation are both physical and mental. We also know that now, more than ever, a growing number of people are afflicted with sleeping disorders. Now that we've also understood the underlying causes so now it's important to understand exactly how we can get back on track and begin taking sleep seriously.

CHAPTER 6:

GETTING BACK ON TRACK - LONG AND SHORT TERM SOLUTIONS



Getting Back On Track - Long and Short Term Solutions

Targeting the long-term

None of these suggestions are going to be easy fix-alls. There are no shortcuts to health, and especially to a good night's sleep. And although this is true for all of the following tips, it's especially true for targeting long-term behaviors that help us get a better night's rest. The main aspects to target here are attitude and knowledge, general health, and dependence on sleeping aids.

1. Attitude and knowledge

As you may have guessed, this is the most crucial aspect to target. Considering it's been the biggest cause of the issue at large, our response to it must be equally as large. It may be cliché, but to target the problem, we must first admit we have a problem.

And if you're sacrificing sleep to work, study, or party regularly, then there's definitely a problem.

We must first realize exactly how poorly this is affecting us. To put it shortly, sleep affects every aspect of our lives. Productivity, concentration, physical wellbeing and performance, emotional stability, and everything else in between. And these are things that all suffer measurably even after one night of poor sleep. Sleeping poorly on a regular basis can plague us with far worse and more chronic issues. And understanding this- truly understanding and appreciating it- is the first step to creating healthier sleeping habits.

2. General health and physical exercise

This is a bit of a chicken or egg question because sleep affects health and the ability to exercise more effectively, but they, in turn, help people sleep better. That being said, they both affect each other, so it's important to take both aspects into account. There are however, a few key points to note when it comes to health and exercise and how they affect sleep.

Firstly, regular physical exercise is a great way to ensure a good night's rest, so try to exercise every day or at least a few times a week.

With that in mind, it's important to note that exercise should be done earlier in the day and avoided in the hours leading up to your bedtime. Another aspect of physical activity to consider is sunlight, which we need for our circadian rhythm (among other benefits). Going outside for at least a half an hour every day is crucial.

Eating healthy and avoiding junk food will help you get a good night's sleep, but it's again important to avoid eating before going to bed, as eating activates your digestive system and delays sleep. It can also cause heartburn or digestive issues, which can be incredibly disruptive at night.

3. Sleeping aids

As a general rule, it's best to try to get natural sleep instead of utilizing prescription or over the counter drugs. As Dr. Walker explains, "no drugs or supplements that we have currently produce naturalistic sleep". This is absolutely vital to understand- most sleeping aids sedate us and knock us out, but they don't provide us with all the aspects of our natural sleep cycle. Melatonin is the exception here, but melatonin is a sleep regulator and not inducer, and it's actually a hormone our bodies produce naturally.

This also applies to some home remedies many use today. Alcohol and marijuana can also be used to induce sedation, but they don't actually allow us to get REM sleep and can be extremely disruptive for sleep. A common phenomenon with alcohol is waking up early after a night out- an attribute of its disruptive nature, while with marijuana a common effect is feeling groggy and unrested the morning after, even if the user got a "sufficient" amount of sleep.

Targeting the short-term

1. Keep a consistent schedule

Going to bed and waking up at the same time on an everyday basis is very important in order to fix your sleeping schedule. This helps sync our biological clock and helps keep it running smoothly. Most of us probably already wake up at the same time every day (at least during the work week). If you do this for some time, you will notice yourself both going to sleep and waking up a lot more easily. And be sure to avoid napping in general, but especially after 3PM.

2. Have a bedroom environment

For reasons already discussed, your bedroom must be dark if you wish to go to sleep on time and avoid waking up during the night. In addition to this, it's important to have a cool bedroom- our body temperature actually needs to drop 1 degree celsius or about 2 degrees fahrenheit in order for us to fall asleep and stay asleep. The only thing we'd add to what Dr. Walker suggests here is a comfortable bed- might go without saying, but it's often something people overlook. Make sure your mattress, pillows, and comforters are to your liking.

3. Avoid lying in bed awake

We've all experienced it: tossing and turning in bed for hours trying to get to sleep- to no avail. To save yourself the frustration and help you get to sleep, the next time you find yourself not being able to fall asleep for a prolonged period of time, get up and do something else for a while before you go back to bed. It'll help you fall asleep on your next try and also avoid creating an association in your brain between being awake and being in bed- saving you another sleepless night in the future.

Summary



1. Keep a consistent schedule



2. Have a bedroom environment



3. Avoid lying in bed awake

CHAPTER 7:

SLEEP DEPRIVATION IN THE WORKPLACE



Sleep Deprivation In The Workplace

Though we've thoroughly described the effects of neglecting sleep on an individual level, there are some far more serious consequences beyond that. The bad news is this issue impacts entire societies- the good news? There are some promising ways we can address that.

Background:

Sleep deprivation has become such a prevalent issue, and it's no longer relevant to speak of it exclusively on an individual basis. As we discussed already, among industrialized countries, often about half of the population doesn't get adequate sleep. In several countries, that number can be as high as 60-70%. Sleep deprivation has become a bona fide epidemic- in the most literal definition of the word. And considering the effects sleep (and lack thereof) has on individuals, once such a large portion of society is affected by sleep-related issues, it's no surprise that problems will arise for society as a whole.

The consequences of bad sleeping habits on an individual basis are pretty significant. Emotional imbalance and general moodiness, lack of productivity, inability to concentrate, and many other adverse effects can be felt even after one night of insufficient sleep. On a societal level, all of these things transfer over pretty directly. The only difference- besides the fact that it's much more dire- is that these things are a lot clearer to track and prove on such a large scale.

The Problem

When we consider these personal consequences, it's no shocker that we can find tangible results on a collective scale. For example, Sleep Cycle- an app that tracks sleep and overall night time activity- tracked sleep for over a million individuals across a number of countries across the world. In doing so, they were able to track approximately how much sleep people get on average by country. There's nothing new about this information in and of itself- many people in the industrialized world aren't getting enough sleep, and most who are getting just barely enough sleep (slightly over 7 hours).

However, The Economist analyzed this data and compared it to the GDP per capita of the respective nation.

The results were telling there was a very direct correlation between the average amount of hours slept and GDP per capita.

Of course, there were some outliers (as there always are)- most notably South Korea and Japan, where people were getting the least amount of sleep out of all the countries studied, but still seemed to have a very admirable GDP per capita. But we'll touch on their specific case a bit later.

Now, this probably isn't groundbreaking news. Logically it follows that when you sleep more, you're just generally more productive. And if everyone sleeps more, then the entire economy is more energized and more productive. Of course, there's more to GDP (or GDP per capita) than sleeping. Economics is, after all, a complex and nuanced field, but the correlation and the logic are certainly there to make a case for sleep creating a more productive and wealthier nation. However, there's yet another layer to all of this that needs to be addressed- how hard these countries actually work.

When looking at the average hours worked per week within OECD countries, there is a near-perfect inverse relationship between the countries with the highest GDP per capita (or the highest average amount of sleep) and those who work the most. That means that those who sleep the least also put in more hours at work. So, a question arises: would people work more efficiently if they got enough rest?

The average workweek for countries such as Netherlands, Germany, or those in Scandinavia is below or just above 30, and they also tend to get the most sleep- which implies that workers are more efficient on a full night's sleep.

No doubt, often this issue is a cyclical one: sacrifice rest for work, get insufficient sleep, then work inefficiently, rinse, and repeat. The perfect example of this is the aforementioned countries of South Korea and Japan. In recent decades, two of the world's emerging powerhouses when it comes to tech. That reputation, however, has come at a price. The Japanese and South Koreans are some of the most overworked people in the first world.

The only other countries putting in similar numbers in Asia (other than Hong Kong) are incredibly underdeveloped countries where workers most likely work so much due to poverty and necessity.

Actually, the issue of overwork is so prevalent there is a specifically East Asian phenomenon the Japanese have dubbed “karoshi”- death from overwork- wherein workers die from working too much. The number of causes varies- some die from stroke, some from a heart attack, while others die from starvation. The cause may vary, but the situation is often the same, healthy and (usually) young workers neglect their health for work and die, often at their workplace, after an exceptionally long shift.

So even though these countries do put out high efficiency, have a very respectable GDP per capita, and, by all accounts, live more comfortably than most other countries on the globe, they do so at a costly price. And though many factors play a role in karoshi, one of the most significant ones is the fact that countries like South Korea and Japan are, on average, getting less than 6.5 hours of sleep a night. This is egregious even in the context of a developed world that is facing a sleep deprivation epidemic. No other country in the industrialized world averages this little.

Most respective countries seem to have some form of issue that either directly has to do with sleep deprivation or is strongly exacerbated by it. These issues are social, economic, and even life-threatening. However, there is a silver lining to all of this- and that's that there are very pragmatic ways to deal with these on a collective level. Even better- some countries or groups have already begun doing so.

So what can we do about this issue?

We've already stressed this plenty of times, but the most significant change that needs to happen when it comes to how we view sleep is attitude.

The first step in recovery is admitting you have a problem, and the biggest issue facing us both individually and collectively is most people are either unaware that sleep is such a severe issue or they don't treat it seriously even if they are aware of how important sleep is.

The karoshi phenomenon- well, it's still a very real problem in East Asia, but there is some good news about this horrible occurrence. Since the term was coined in the 1970s, it's come to the attention of people in Japan and elsewhere in Easter Asia, namely South Korea. Karoshi becoming a household term helped bring awareness to it. Overwork and sleep deprivation is an unfortunate combination that most people are aware of in South Korea and Japan, and helping bring attention to how dire of an issue it actually is, helped bring about real change.

Some tangible and legislative changes have come along in the last few years in both countries. In 2018, South Korea lowered the maximum amount of hours allowed to work per week from 68 hours to 52 (40 regular hours plus 12 hours of overtime) with the explicit reason of avoiding overwork and giving people more time to rest and recuperate. Japan, in its turn, has been making reforms in the work environment a top priority. Although the issue of sleep deprivation has been addressed before in Japan, their solution (allocating some time at offices for employees to take a nap) isn't a beneficial one long term. The occasional nap is an okay way to deal with tiredness short term, but it's no long-term solution for repeatedly getting insufficient rest.

Instead, more recently, more and more companies in Japan have started taking up a four day work week as a way to combat overwork and sleep deprivation. The number of firms who have taken up the four day work week has more than doubled since 2010. By promoting a culture of rest and recuperation, they can ensure their people are well-rested, alert, and productive. Changes like these are a very positive change for the industrialized world that prove that things such as sleep, health, and recuperation are now serious issues that people are addressing.

The law of diminishing returns

The vital thing to note, however, is that it isn't just employees who suffer from sleep deprivation and overwork. Employers actively stand to lose out on efficiency and profit as well. **So even if you are an employer and employee health isn't a top priority for you, these issues should still be on your mind as you stand to lose profit from them.** Overwork leads to sleep-deprived employees which leads to inefficient work, and so on.

As Robert Owen famously said, the ideal work-life balance would be 8-8-8. 8 hours of work, 8 hours of recreation, and (most importantly!) 8 hours of rest. This created the 8-hour workday that we know today. The 40-hour workweek, however, was first implemented by Henry Ford. He cut back on the 48-hour workweek (8 hours per day for 6 days a week), after realizing that his employees needed recuperation and rest in order to be more productive. This is called the law of diminishing returns- wherein a point is reached that the amount of output is not worth the amount of time, energy, or money spent on it. Ford realized that allowing employees to rest properly had not only tangible employee benefits but also very real employer benefits.

Today, companies such as Google have begun to implement a more flexible working schedule, wherein employees are free to work by their own schedule provided they get their tasks done and attend all mandatory meetings. These trends prevent overwork and stress, but often what isn't mentioned is the fact that overwork and stress are things that go hand in hand with sleep deprivation.

In implementing more lenient or shorter work hours, companies are allowing their employees to get their proper rest and come to work energized, recuperated, and ready to have a productive day.

Striking the perfect work-life balance

Ultimately, what this all boils down to is the ideal work-life balance. Owen's idea was pivotal at the time and incredibly important in the sense that it got people to start thinking about the work-life balance. Sleep is a pivotal part of it, but an issue arises because it's often the part that gets sacrificed in the name of the other two. When you take into account the fact that people need to prepare for work, commute to their job, take a lunch break, and commute back home, the time taken up by things pertaining to work is far more than 8 hours. Add to that the fact that most people need to cook and clean once they're home too, and it's no surprise that most people decide to sacrifice an hour or two of rest to make up for the time taken up by work and recreation.

Like Google, many other places have begun experimenting with alternative work schedules. At one retirement home in Sweden, they attempted a 6-hour workday for nearly 2 years. Issues with the state budget eventually forced the state to end the experiment. Still, the results were promising, with nurses (who work in one of the most stressful fields out there) reporting being more energized, more well-rested, and overall more productive during their 6 hour work days as opposed to their 8-hour workdays.

Many firms in Singapore (another country with a very low average for hours of sleep per night) have begun implementing early days once or twice a week, wherein employees end their day at 3:30 PM. This helps employees run their errands without sacrificing their recreation or rest time to do so. Once again, results were promising, with employees having adequate time to run errands, relax, get their 8 hours, and become more productive at work as a result of it.

The truth is that there is no universal work-life balance.

Every person must find their own work-life balance to ensure they are productive at work and well-rested.

But the important thing to highlight here is that more and more companies and countries are bringing attention to the importance of doing so. This is already a massive step forward. That being said, there are other solutions out there to explore as well.

Corporate wellness programs

Another trend that's been picking up steam recently is workplace wellness programs. Programs designed to create a healthier, happier, and more productive workforce. These programs are designed to create a fun way to encourage employees to lead healthier lives. According to a government survey from America, the percentage of companies offering wellness programs is growing rapidly, with 30% of all companies nationwide in the United States offering some form of program that focuses on physical activity and health.

These programs can vary when it comes to the details, but generally, employers incentivize employees by including competitions, often with prizes for winners. These competitions are a great way to motivate workers to become healthier and can come in various forms. There are walking challenges, weight loss challenges, water drinking challenges, and- yep, you guessed it!- sleeping challenges.

These corporate wellness programs are becoming ubiquitous within firms everywhere, and the best part is that they're easy and incredibly cheap to implement. Many people have wellness trackers or smartwatches that can track fitness and/or wellness in-depth, but even people without it can track things such as steps, calories, and sleep with their smartphones nowadays. And for small teams, it can be a positive way to spice things up at the office and add a little fun to the work environment.

Many companies have opted for wellness consultants as well, specialists who can help employers design the perfect corporate wellness program for their office, taking into account a multitude of factors. These specialists can also track results on an employee to employee basis and meet with employees to address their specific issues. So if an employee is having trouble sleeping, a wellness consultant can help them figure out why exactly and help get them on the right track.

Such programs and specialists are a massive step in promoting a culture of health and wellness on a collective level, especially when it comes to good sleeping habits. They can help be a huge leap forward in addressing sleeping issues on a broader scale. And seeing how correlated overworking, stress, and lack of productivity is with sleep deprivation or negligence, this could prove to be the single best way to address this issue on a larger level. As we saw with the examples of Sweden, Singapore, and Japan, these changes generally tend to come from companies and firms instead of individuals or governments.

Not only do wellness programs promote health, wellbeing, and help address pressing issues such as sleep deprivation, but they build an environment of trust between employer and employee.

Such programs show employees employers care and provide employers with a more productive and energized team, one who can avoid overworking or stressing in order to meet deadlines. And by addressing sleep, they can help employees realize just how prevalent of an issue sleep negligence is and how dangerous its consequences can actually be.

At every level and in nearly every country, sleep-related problems are proving to be a serious issue. However, despite their horrible effects on every facet of life, these issues are very seldom addressed to the extent they should. The most frustrating aspect of all of this is that most of these issues arise consciously- they come from simple neglect. Sleeping disorders are a genuine issue, but the vast majority of people not getting sufficient sleep aren't doing so because they simply neglect to do so.

It's become such a prevalent issue that we are now seeing tangible effects at national levels across the globe. People- even those in comfortable and wealthy nations- are finding themselves sleep-deprived like never before in human history. This is becoming a dangerous trend that's proving to have tangible effects on anything from productivity and GDP to much more severe things such as overall happiness and livelihood.

It's time we took a step back to address this issue- both on an individual and larger level. A work-life balance is critical for humans, and sleep is a massive part of that. No matter your position- employer, employee, freelancer, own boss, small business owner, student, or even unemployed- we all stand to gain a lot by seriously and honestly addressing this issue.

Summary



1. Admit there is a substantial sleep deprivation issue



2. Implement more lenient or shorter work hours and make sure you have work-life balance policies in place



3. Design a corporate wellness program

THANK YOU

