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Occupational Sleep Health and Wellbeing

Dr David Garley - Clinic Director

Agenda

- Why do we sleep?
- Impact on physical and mental health
- Workplace impact of poor sleep
- Specific workplace challenges to sleep
- Case study: Hutchinson Ports UK
- Q&A



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Why Do We Sleep?

Why do we sleep?



Physical rest and recuperation



Restoration of our immune system



Memory formation



Emotional regulation



Clearing out of brain waste products



The Importance of Sleep

The importance of sleep



Poor concentration



Physical fatigue



Poor memory



Emotionally labile



Health effects of poor sleep

Physical health

High blood pressure, heart attack, stroke,
diabetes

Mental Health

Depression and anxiety

Risks associated with poor sleep



Cardiovascular disease

22,040 with insomnia matched to controls followed up at 10yrs: 68% increased risk heart attack, 85% increased stroke risk. Chien-Yi Hsu et al, 2015



Diabetes

Prevalence of type 2 diabetes 16% higher than controls. Comparable to traditional risk factors such as obesity - leBlanc et al 2018



Mental health

Bi-directional relationship of sleep with mental health - meta-analysis of thirty-four cohort studies involving 172,077 participants showed significantly increased risk of depression. Li et al, 2016



Workplace safety

- Increased risk of all workplace accidents
- 75% increased odds of workplace accident resulting in permanent disability - Sivertsen 2006



Road traffic accidents

20% RTAs linked to poor sleep - Thorax



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The Workplace Impact of Poor Sleep

Workplace impact of poor sleep

Overall cost to UK each year is approx £40bn



Happiness

Bidirectional relationship between sleep and mental health



Absenteeism

Adults with insomnia have 14.3 additional days off sick. Bolge et al. 2009.
Significant factor in burnout



Productivity loss

- 29.7 days of presenteeism Bolge et al, 2009.
- Further losses in creativity and innovation.
- Triad of performance



Accidents

Compared to good sleepers, employees with insomnia are 8x more likely to have reported industrial accidents in the past month. Leger et al 2002



Staff Turnover

Sleep is a key factor in turnover intention Barnes et al 2013



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Sleepiness Vs Fatigue

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Sleepiness Vs Fatigue

Sleepiness - An urge to fall sleep in situations where wakefulness is intended

Fatigue - Physical and mental exhaustion. Can relate to poor sleep, as well as other medical and mental health conditions

Sleep disruptors



Insomnia - affects 10% of the background population



Circadian factors - Shift working - 20% EU employees



Specific sleep disorders - Obstructive sleep apnea - 30% of heavy industry workers



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Obstructive Sleep Apnea

With OSA you experience repetitive closure of the airway during sleep.

Associated night-time symptoms

- Loud snoring
- Stopping breathing
- Snorting or gasping

You never fall into the deep restorative states of sleep, because when you do, your airway closes, you stop breathing and your body has to wake you up

Associated daytime symptoms

- Waking feeling unrefreshed
- Excessive daytime sleepiness
- Poor memory and concentration
- Low mood



Who gets OSA?

Anyone can

- 2.5% whole population
- 85% of those with OSA are undiagnosed
- Can be 30% of certain industry workers

Risk factors

- Age and BMI
- Male, smoking, alcohol, sedating medications, large neck circumference
- Menopause

Treatments

- Lifestyle advice
- Dental device
- CPAP



Managing Workplace OSA

- Sleep happens at home - a personal issue
- Expensive - Given 30% prevalence: a costly can of worms to open
- Risks of losing drivers licence - essential for many operational roles

Case Study: Hutchison Ports UK



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Case Study: Hutchison Ports UK

- Operate the four largest container ports in the UK
- Identifying workers with significant sleepiness and fatigue
- Signing workers off sick, but long delays getting NHS diagnosis and treatment

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- Operate the four largest container ports in the UK
- Identifying workers with significant sleepiness and fatigue
- Signing workers off sick, but long delays getting NHS diagnosis and treatment
- Contacted by OH department
- Referral system set-up
 - Employee identified - signed off if at risk - home sleep tests within 2 days -

Case Study: Hutchison Ports UK

- Referral system set-up
 - Employee identified
 - Signed off if at risk
 - Home sleep tests within 2 days
 - Consultation within 5 days
- If significant OSA diagnosed - CPAP initiated - Internally or via NHS fast track
- First follow up at 2 weeks into treatment
 - If excessive sleepiness and fatigue resolved - return to work - 3 weeks total

Case Study: Hutchison Ports UK

- Referral system set-up
 - Employee identified
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 - Home sleep tests within 2 days
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- If significant OSA diagnosed - CPAP initiated - Internally or via NHS fast track
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 - If excessive sleepiness and fatigue resolved - return to work - 3 weeks total
 - Compared to NHS wait - over 9 months
 - Saving of 32 weeks sick pay
 - Investigations and treatment £1500



Case Study: Hutchison Ports UK

Engagement and DVLA



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Engagement and DVLA

0= No chance of dozing 1= Slight chance of dozing 2= Moderate chance of dozing 3= High chance of dozing

How often do you doze?

	0	1	2	3
Sitting and reading	0	1	2	3
Watching television	0	1	2	3
Sitting in a public inactive place (theater or meeting)	0	1	2	3
Riding in a car for one hour without a break (as a passenger)	0	1	2	3
Lying down in the afternoon when circumstances permit	0	1	2	3
Sitting and talking to someone	0	1	2	3
Sitting quietly after lunch, without alcohol	0	1	2	3
Stopped in traffic for a few minutes	0	1	2	3
Total _____				

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OSA and DVLA

If you are excessively sleepy, then you should not drive

Do not need to inform DVLA until diagnosed

OSA-syndrome must be reported

1. Do you have OSAS?
2. Are you on treatment?
3. Are you getting better?

Should be reviewed 3 yearly if group 1 license, or annually for group 2

Case Study: Hutchison Ports UK



Employee ambassador
Head of Occ Health
Head of Engineering
Head of H&S
Head of Internal Comms



Case Study: Hutchison Ports UK

- 1 - Clearly defined problem
- 2 - Excellent coordination between Occ health and Specialised Sleep Service
- 3 - Rapid return to work
- 4 - Engaged senior leadership team
- 5 - Address challenges head-on through education
- 5 - Communication of worker success stories

Takeaway...

- Poor sleep is extremely common
- Poor sleep makes a significant impact on workplace fatigue and accident risk
- Poor sleep can be treated



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Thank You

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