

# Bad if you sleep, bad if you don't.

Aggression and Sleep  
Jose Mejia MD PhD

## Objectives

- Highlight the relationship between sleep and aggressive behaviours
  - Review the role of parasomnias in forensic milieu
  - Describe available evidence towards the relationship of patterns of sleep and violent behaviours
  - Explore clinical applications in mental health

So... we all sleep, right?



Or...do we??

- Violent Behaviours During Sleep
  - NREM: sleepwalking, sleep terrors, confusional arousals (sleep drunkenness) nocturnal seizures (frontal and temporal lobe seizures)
  - REM: REM sleep behaviour disorder



## But VBS are not that common, right?

- Only epidemiological study of violent behaviours during sleep done to date, reported that in the UK 2.1 % population have them!!



## A study by Ohayon et.al. (2010)

- N = 19,961 from UK, Germany, Italy, Portugal, Spain and Finland
- Prevalence 1.6. No difference by gender
- Higher 34 years old and younger
- Night shift workers higher rates
- Most frequent are talking, laughing gesturing and kicking
- 31.4 hurt themselves or someone else. Not related with frequency of VBS
- Injuries included bruises, nose bleeds, fractures, abrasions, pulled hair and head contusions
- **ONLY FIVE OF THEM TALKED TO THEIR PHYSICIANS. NO ACTION WAS TAKEN IN ANY OF THOSE CASES!!!!!!**

## A bit of history

- 1965: Silesian woodworker killed his wife while sleepwalking, while attacking an imaginary intruder
- 1878: Man suffering sleep terrors killed his 18 month old son taking him by a wild beast about to attack his family
- 1893: Charcot as expert witness in a case in which a servant injured landlady and another employee while sleepwalking
- 1992: Queen v. Parks

## Reasons for this review

- Complaints of sleep problems:
  - Can't sleep
  - Usually take pills
  - Usually smoke a joint
  - Irregular pattern of sleep
  - Quality???
  - What do you do when in bed?
- Should you:
  - Prescribe? What ? Why?
  - Sleep hygiene (as if....)
  - What to do?

## For those who sleep....

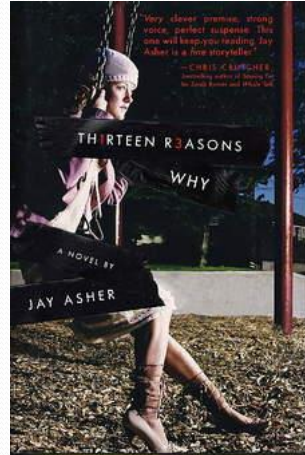
- Study by Ireland J. and Culpin V. (2006) reported that aggressive behaviours seem to be related to the quantity and quality of sleep.
  - 184 Adolescent inmates
  - Using Sleep Complaint Scale, Aggression Questionnaire, Anger Management Assessment Questionnaire, Barrat Impulsivity Scale II
  - Individuals reported:
    - More sleep out- than in the institution
    - More awakenings
    - Longer time before falling asleep
    - Exercising before bed (in>out)
    - Using bed for non sleep activities
    - Concluded that aggression is predictive of sleep problems

## And more to it....

- Australian study (Allerton et.al. 2003) found that the most common disorders in incarcerated youth were conduct disorder, substance use disorder, adjustment disorder, adhd, and sleep disorders.
- Clinkinbeard S. et. al. (2010), using the National Longitudinal Study of Adolescent Health (n=14,382) demonstrated that:
  - Adolescents that sleep seven or fewer hours reported higher incidence of property crimes
  - Adolescents that slept 5 or less, reported more violent crimes, compared to those that sleep more.

## And the 14<sup>th</sup> reason is ....

- Adolescents in the poor sleeper group showed significantly higher scores in suicidality (Zschoche M; Schlarb AA; 2015)



## Management

- **ASK, INQUIRE, ASSESS, EVALUATE!!!!**
  - **Maximize safety of sleep environment**
- Request consult urgently (prn). Polysomnogram
- Arousal disorders
  - Associated sleep disorder (OSA, RLS/PLMS)
  - Benzodiazepines or Imipramine
  - Hypnosis
- REM Parasomnias
  - Clonazepam (melatonin or pramipexole)
- Epilepsy: CBZ, OXC, TPM
  - No effect: Surgery?
- Malingering
- Address potential forensic matters



## Plans and ideas?

- Pilot at NSYC
- Study sleep in community
- Study sleep in the institution
- Actimetry and sleep logs