

Cognitive Behavioral Treatment for Insomnia



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What is sleep?

- Reversible behavioral state of perceptual disengagement and unresponsiveness to the environment
- A multifaceted and highly active brain processes compromised of two distinct states of consciousness: REM and NREM sleep
- Sleep is universal and necessary for survival




Why do we sleep?


- Sleep is restorative
- Sleep is crucial for learning, CNS development and continual hardwiring of memory
- Importantly, the different sleep stages have specific and distinct functions (eg, REM and declarative and emotional memory, NREM and procedural memory)
- Sleep facilitates species-survival behavior
- Sleep regulates mood and stress
- Sleep implicated in the regulation of the appetitive and cardiovascular systems




Do we need sleep?

- Prolonged sleep deprivation leads to significant impairments in cognitive and emotional functioning
- 7 hrs/night x 365 nights x 80 years =
204,400 hours of sleep (23 yrs)
50,000 hours of REM (6 yrs)

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- REM and NREM associated with different psychological and physiological functions
 - REM sleep/dreaming crucial for emotion processing and regulation, memory consolidation, imaginal offline rehearsal of species-survival behaviors
 - NREM associated with tissue restoration, release of growth hormones, neutralization of accumulated neurotoxins and redistribution of neurotransmitters


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- REM and NREM also associated with different sleep phenomena and sleep disorders
 - REM associated with dreaming disorders (nightmares) and REM Behavior Disorder
 - NREM associated with arousal disorders (night terrors and sleepwalking, periodic limb movements, restless legs syndrome)

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- Different age ranges are also more commonly associated with specific sleep disorders
 - Adolescents (eg., delay sleep phase disorder)
 - Elderly (e.g., advance sleep phase disorder; early morning awakening, apnea, Restless Legs Syndrome)



What is “normal” sleep? Why is it important for health?

- Healthy sleep leads to a feeling of rejuvenation upon awakening and “recharges the mind”
- There is no single standard for optimal sleep duration (“8 hours one size fits all”)
- Sleep quality far more important than sleep quantity in determining adequate sleep

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- Total hours of sleep often not a predictor of sleep disorders or of sleep quality
 - Thus, MORE not necessarily better
 - More sleep (>9hrs) is strongly associated with heightened mortality and cardiovascular disease



What is disordered sleep and why is its detection important?

- Sleep disturbances (SD) are a VASTLY underreported and undertreated behavioral and public health problem
- 13-49% of general population suffer from SDs – data highly consistent across cultures (NSF estimates 50-70 million Americans suffer from chronic insomnia alone)
- Up to 90% of clinical populations suffer from SDs
- As many as 50-75% of individuals w/ chronic medical illnesses report SDs



Disordered Sleep

- Avg. duration of SDs over 7 years
- Not unusual for SDs to persist for 30-40 years, particularly with trauma exposure
- Most sufferers NEVER seek treatment
- When they do, it is with primary care physicians who have little to no training in sleep medicine (less than 10 hours over 4 yrs of basic training) – 50% of medical schools have 1-2 hours of sleep in curriculum - Thus, sleeping pills front line tx of choice

Undetected/untreated SDs associated with:

- Poorer psychological/emotional well-being
- Heightened risk factor for psychiatric disturbance (PTSD, depression, anxiety)
- Increased physical health problems (stroke, CHD, hypertension, stage 2 diabetes, increased bad cholesterol)
- Increased rates of alcoholism and substance use/abuse
- Weight gain and increased appetite, particularly foods high in carbohydrates (increased Ghrelin, decreased Leptin)




Disordered sleep

- Increased relapse in depression (10x increase)
- Increased workplace and vehicular accidents (eg., Exxon Valdez, Three Mile Island, Chernobyl, Bhopal, Challenger space shuttle)
- Drowsy driving = 100,000 accidents, 1500 lives/yr
- Increased work absenteeism and lower work productivity (1993 study found DIRECT costs over 16 billion \$\$, INDIRECT costs may exceed \$50 billion)
- Increased health care utilization
- Increased all-cause mortality

Sleeping issues are rampant

- Americans spend over \$100 billion/yr
- In addition to prescribed hypnotic medication, as many as 20% of general population uses sleep aids on any given night:
 - Anti anxiety drugs (Xanax, Ativan, Valium, Klonopin)
 - Anti-depressants (Trazodone, Doxepin)
 - Anti-psychotics (Seroquel, Zyprexa)
 - Antihistamines (Tylenol and Advil PM, Benadryl)
 - Melatonin
 - Other herbal remedies (Valerian, Tryptophan)

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- Thus, it is the primary contention of this talk that:
 - 1) Many of your patients have unrecognized or masked SDs which are having a significant negative impact on their functioning
 - 2) Detecting and referring/treating SDs can SIGNIFICANTLY facilitate physical and emotional health and accelerate overall treatment effects



SDs often co-occur with many DSM psychopathologies

- Depression
- Bipolar disorder
- Anxiety disorders
- Alcoholism
- Post-traumatic Stress Disorder
- Schizophrenia and Schizotypal Personality
- Borderline PD
- Caffeine and stimulant abuse
- Almost all substance withdrawals



DSM-5 Categories of SDs

- Dyssomnias – alterations in the quality, amount and timing of sleep
 - 307.42 Primary Insomnia
 - 307.44 Primary Hypersomnia
 - 347.00 Narcolepsy
 - 780.59 Breathing-related SD (sleep apnea, obstructive upper airway disorder)
 - 307.45 Circadian rhythm SD (Delayed or Advance Sleep Phase Dx, Jet lag, Shift work)



DSM-5 Categories of SDs

- Parasomnias – undesirable phenomena that occur during sleep or sleep/wake transition
 - 307.47 Nightmare Disorder
 - 307.46 Night Terror Disorder
 - 307.46 Sleepwalking

Also, REM Behavior Disorder

Bruxism

RLS and PLM (both linked to OSA and Ins)

Sudden Infant Death Syndrome (SIDS)

Sleep paralysis/hypnagogic hallucinations



Taking a Sleep History

- History of previous sleep problems/irregularities/complaints
 - Presenting complaint/ When did it occur?
 - Identifiable trigger? / Course of problem
 - Efforts to resolve problem (self-initiated and professional)
 - Functional analysis (consistency, factors that make it better or worse, how does patient understand SD)
 - How does the patient respond to their SD?



Sleep History – cont.

- Bedtime routine (pre-bedtime routine, use of sleep aids, time to fall asleep (SOL), thoughts/fears about sleep)
- Awakenings: How many? When? How initiated? Timing of awakenings? How long is sleep interrupted? (WASO)
- Regularity of sleep routine (KEY to healthy sleep)
- How much time is spent in bed not asleep?
- How rested does patient *feel* the next day? – Daytime impairments CRUCIAL



Sleep Hygiene/Environmental factors that negatively affect sleep

- Noise and light
- Room temperature
- Disruptive bed partner
- Regular or irregular sleep schedule (shift work, weekday vs. weekend)
- Clock placement
- Time spent in bed other than for sleep/sex
- Daytime naps/Evening dozing and spacing out



Sleep Hygiene/Environmental factors that negatively affect sleep

- Nocturnal eating and drinking patterns
- Poorly timed exercise
- Caffeine and nicotine consumption (amount and timing)
- Alcohol and other substances (amount and timing)
- Engaging in activating activities too close to bedtime (being wired)
- Importance of wind-down time (day is done, sleep has begun)



Psychological Factors that impact sleep

- Sleep behaviors are learned (for better or worse)
- Stress (acute and chronic)
- Emotional distress (depression, anxiety, anger)
- Trauma exposure
- Emotion processing abilities and personality (somatizer, worrier, ruminator)
- Coping abilities (emotion-focused vs problem solving)



Psychological Factors that impact sleep

- Beliefs and attitudes about sleep
- Expectations and attributions about sleep
- Worrying about “catastrophic outcomes” of not sleeping well
- Using sleep as an emotion regulator
- Is there a history to this behavior?
- How is poor sleeping behavior explained?

Physical Factors which impact sleep

- Age and Gender
- Health problems (acute and chronic)
- Body type/obesity
- Breathing patterns and nasal airflow levels
- Degree of physical activity/exercise
- Body temperature
- Hyperarousal
- Medication history
- Chronic or acute pain



More Sleep History

- Increased cognitive impairment or confusion (concentration, attention, short-term memory)
- Behavioral impairments such as accidents, near-misses, balance problems, falls (especially in older patients)
- Timing and dosage of all prescription and over the counter medications *including* alcohol
- Assess bedtime attitude and safety behaviors and worries, both sleep and non-sleep related



Is it sleepiness or fatigue?

- Fatigue characterized by tiredness and lethargy, often felt bodily
- However, fatigue often accompanied by cognitive hyperarousal (racing mind)
- True sleepiness overrides fatigue
- Most insomnias are fatigue
- In contrast to sleepiness, fatigue can be multiply determined and hard to pinpoint to specific cause, thus hindering treatment – Attributions crucial!!



Insomnia

- Defined as difficulties initiating/maintaining sleep or nonrestorative sleep at least 3x/wk for a month AND causing waking distress and/or reduced daytime functioning
- Insomnia is *HIGHLY* prevalent in today's culture
- Rates significantly higher in women, older individuals, lower SES, minority status



Insomnia

- Rates are up to 80% in major depression, 90% with concurrent depressive/anxiety symptoms
- Thus, highly associated with negative affect (and may be a major contributing factor in such)
- At any current time:
 - 30-48% report insomnia symptoms
 - 9-15% report insomnia with daytime consequences
 - 6-10% meet DSM diagnostic criteria



Insomnia

- Four insomnia subtypes:
 - Sleep onset insomnia
 - Sleep maintenance insomnia
 - Early morning awakening
 - Non-restorative sleep



Insomnia

- Insomnia can be:
 - 1) transient
 - 2) acute (1-6 months)
 - 3) chronic (>6 months)
- Most insomnia is chronic
- Symptom or diagnosis? (Both!)



Insomnia

- Insomnia can be caused by:
 - 1) Psychiatric/psychological
 - Cognitive style marked by worry, rumination, somatization, and emotion-focused coping.
 - Almost *always* precipitated by stress
 - Chronic hyperarousal resulting from trauma exposure
 - 2) Medical
 - chronic and acute pain, recent surgeries, frequent complaint in fibromyalgia and MS



Insomnia

3) Medication related

- stimulants, steroids, opioids, SSRIs, beta-blockers and hypertension meds, analgesics, decongestants

4) Circadian

- Jet lag, shift work (particularly variable shift work), delayed or advanced sleep phase syndrome, periods of extensive bed rest



Insomnia

5) Psychophysiological Insomnia

Many insomnias are learned behaviors and under direct stimulus control



Insomnia

- Hyperarousal/failure to deactivate is the key to understanding insomnia
 - 1) Physiological hyperarousal
 - Warm body temperature, muscle tension, rapid heart beat, clammy hands
 - 2) Emotional hyperarousal (Negative affect)-
 - worry, fear, anger, anxiety, grief, depression, hypervigilance



Insomnia

3) Cognitive hyperarousal

- Worries, racing thoughts, rumination and cognitive intrusions, planning and analyzing

- Many of these are related to sleep

Thus, insomnia takes on its own life

Poor sleepers think about sleep all day long while good sleepers just go to bed

Predisposing factors for insomnia

- Increased life stress, *particularly* work and relationship stress
- Trauma exposure
- Worrying, ruminative emotional coping style
- Depression
- Hyperarousal
- Decreased sleep drive



Insomnia Evaluation

- Evaluation should include assessment of long-term sleep hx and previous bouts of poor sleep
 - “I’ve never been a good sleeper”
 - “I’ve always been a light sleeper”

Evaluation should also include how the patient conceptualizes their sleep disorder and how their life would be like if not for the sleep disorder



Insomnia Evaluation

- Was there a discernable trigger?
- What does the patient do when they can't sleep? (functional analysis)
- Consistency of symptoms
 - - weekend vs. weekday
 - - home vs. away
 - - can the patient *predict* whether they will have a good or bad night?

When does the patient begin thinking about the upcoming evening's sleep?



Insomnia Evaluation

- Previous and present attempts to address the sleep issue
- Evolution of sleep disorder
- What is the patient's "worst" sleep fear?
- What are the perceived consequences of poor sleep?
- Safety behaviors?
- Stability of sleep routine
- How does the patient deal with emotional upset?



CBT-I

- Identifying the exact cause of insomnia often far less important than identifying and modifying maintaining factors that perpetuate the problem



Treatment of Insomnia

- 1) Pharmacotherapy (hypnoids and benzos)
 - Ambien, Lunesta, Sonata but also anti-anxiety and sedating anti-depress meds
 - Front line treatment for insomnia
 - Effective for transient, s-t insomnia
 - Should not be used more than 2-3x/week or for more than 4 weeks
 - Can lead to waking hangover effects
 - Can unmask memory problems
 - Withdrawal often leads to rebound insomnia



Treatment of Insomnia

- Contraindicated in pts w/ OSAs, those with hx of substance issues and older individuals
- Tolerance effects/reduced effectiveness over time and habit forming
- Pharmacotherapy NOT an evidence based tx for chronic insomnia
- Most insomnias are chronic
- No extant data supports LT resolution of sleep problems following ST (1 month) or medium term (6 month) pharmacotherapy trials



Treatment of Insomnia

- In addition, even medium-term use of sleep medication may have numerous adverse effects including:
 - Tolerance and Dependence
 - Memory impairments
 - Daytime carryover leading to increased rates of accidents and falls, particularly in the elderly
 - Unmasked severe depression
 - Automatic motor behaviors (night eating)
 - Rebound insomnia upon discontinuation



Treatment of Insomnia

- 2) Improved sleep hygiene (START HERE!)
- 3) Behavior Therapy
 - Sleep restriction
 - Stimulus Control
 - Relaxation training
- 4) Phototherapy (bright light tx)
- 5) Cognitive-Behavior Therapy (CBT-I) – Evidence based gold standard treatment



Behavior Therapy

- 1) Sleep restriction
 - Tied to sleep efficiency (total sleep time/total time in bed)
 - Should be $>85\%$
 - Decrease time in bed when $SE < 80\%$
 - Never less than 4-5 hrs/night
 - Can be adjusted by 15 minutes each week depending on response
 - Consolidates sleep
 - Paradoxical components



Behavior Therapy

- 2) Stimulus Control
 - Avoid sleep-incompatible activities in bed
 - Only use bed for sleep and sex (not as a work office, TV couch or conversation center)
 - Only go to bed when sleepy, NOT tired
 - Leave the bed after 15 minutes of no sleep
 - Set alarm to keep rise times constant (7 days a week)
 - NO NAPS!!!!
 - Emphasize the positive side of staying up



Behavior Therapy

- 3) Relaxation Training
 - Provide conceptual framework (stress and mind-body connection)
 - Mindful breathing
 - Any type of progressive muscle relaxation (tension-release) about equally effective
 - 2x/day, once before bed (15-20 mins)



Phototherapy

- Controlled exposure to bright light (10,000 lux) delivered via a lightbox
- For pts who have delay sleep onset, exposure should be in the am upon awakening
- For pts who have advance sleep onset, exposure should be in evening hours
- All exposure should be 30 mins EVERY day
- Contraindications: propensity for bipolar or hypomania; hx of seizures or headaches



CBT-I

- 9 systematic reviews/meta-analyses of CBT-I published in past 15 years
- American Academy of Sleep Medicine (1999, 2006) Task Reports (85 clinical trials w/ >4100 patients) indicate that 70% of all participants show significant improvement w/ CBT-I sustained and strengthened up to 12-month follow-up
- Moderate to large effect sizes



CBT-I

- Morin et al (1999) compared CBT, temazepam, combined and placebo
- All three active conditions produced ST sleep improvements.
- On 1-yr follow-up, temazepam regressed to baseline while two CBT conditions showed sustained and continued improvement



CBT-I

- Based on published evidence, NIH Consensus and State of the Science Statement (2005) concluded that:

“CBT is as effective as prescription medications for short-term treatment of chronic insomnia...The beneficial effects of CBT, in contrast to those produced by medications, may last well beyond the termination of active treatment” (p. 14)



CBT-I

- Significant improvement also noted for daytime functioning - KEY component for sustained functioning
- Based on these findings, AASM published best practice parameter statements endorsing the use of CBT-I including SR, SC, SH and relaxation techniques as best practices for insomnia



CBT-I

- Cognitive distortions are *rampant* in insomnia – Reason why CBT-I SO effective
- Carefully evaluate your patient's response to their insomnia:
 - *Catastrophic thoughts* ("If I don't sleep tonight my life will be ruined")
 - *Learned helplessness and external attributions* ("Nothing I do helps")
 - *Health worries and fears of losing control/going crazy* ("If I don't sleep tonight I'll have a nervous breakdown")



CBT-I

- Irrational fears (“If I don’t sleep I’ll have a nervous breakdown”)
- *Rumination over perceived daytime deficits* (“Everyone can tell that I didn’t sleep last night”, “I can’t do my job because I’m too tired”)
- *Overgeneralizations and absolute b/w thinking* (“I didn’t sleep at all last night”, “I never sleep well”)
- *Ruminative coping in response to sleep* (“I feel so bad”, “This is so awful... I can’t function”)



CBT-I

- *Negative prediction making* (" I know I'll feel awful tomorrow"; "I'll never sleep tonight"; "I can't sleep unless I take a pill")
- *Magnification of insomnia consequences* ("Insomnia is ruining my life", "I can't be in a relationship until my sleep is better"; "when I feel irritable or depressed, it's because I didn't sleep well")
- *Misattribution of life events (negative ones in particular) as consequence of poor sleep* ("My relationships fail because I don't sleep well")



CBT-I

- *Anticipatory anxiety about the following night ("What if I don't sleep tonight?")*
- *Unrealistic expectations about sleep (" I must have 8 hrs of sleep to function"; "My spouse falls right asleep so I should be able to do the same")*
- Daytime fatigue, moodiness, perceived performance deficits



CBT-I

- *Misperception about the actual causes of insomnia* (“ My insomnia is the result of some biochemical or hormonal imbalance”; “My sleep problem is essentially the result of aging and there is nothing I can do about it”)
- *Perceived loss of control and learned helplessness* (“I can’t ever predict if I’ll have a good night or bad”; “I can’t control my sleep...there is nothing I can do”; “No matter how hard I try I can’t make myself sleep”; “I can’t sleep without a pill”)




CBT-I

- *Misconceptions about good sleep practice* (“When I have trouble sleeping I should stay in bed and try harder”; “Tonight I’ll go to bed really early and catch-up”; “A drink before bedtime will help me fall asleep better”)



CBT-I

- What's the evidence?
- What's the worst that can happen?
- How likely is this to happen? (Catastrophic Probability Estimation)
- Has it ever happened before? How often?
- Calculate and discuss the difference between worried outcome % and actual negative outcome%

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- Thought records to monitor and detect faulty thinking patterns
 - absolute thinking, magnification, overgeneralizations, selective recall filter, emotional reasoning, labeling, jumping to conclusions, mind reading and fortune telling, personalization
 - Negative prediction making
 - At the end of the day, so what?



CBT-I

- Other invaluable CBT tools:
 - - Guided visual imagery
 - - Scheduling prescribed worry time and/or day review (“mind dumping”)
 - - Mindful Meditation practice

Typical Causal Chain of Events

- 1) Initial event (sleep or otherwise)
- 2) Negative appraisal of event
- 3) Negative sleep cognitions
- 4) Emotional hyperarousal (fear)
- 5) Maladaptive sleep behaviors
- 6) Intensified emotional and cognitive hyperarousal
- 7) Insomnia



CBT-I

- Successful treatment often entails elements from ALL approaches and must be carefully tailored to each patient
- Keep expectations reasonable: few chronic insomniac become “great sleepers”
- Medication titration schedules crucial and should be addressed early in tx



CBT-I

- Crucial indicators for improvement:
 - -low psychopathology (NA espec)
 - -later age of onset
 - -specific trigger event identified
 - -sleep onset vs. sleep maintenance
 - -infrequent use of sleep meds
 - -high compliance w/ tx instructions
 - Absence of other sleep disorders



CBT-I

- Remember the mantra:

Practice may not
always make perfect
but often good enough



CBT-I

- Specific treatment issues with chronic insomnia patients:
 - Pay careful attention to complaints about impaired daytime functioning
 - Assess for possible secondary gain maintaining target behavior
 - Poor/incomplete patient compliance #1 obstacle to successful treatment
 - Problem-solve any anticipated setbacks or difficulties with execution of tx plan



CBT-I

- Present treatment interventions with detailed rationale
- Encourage questions
- Discuss at length patient's reservations about treatment intervention (especially SR & SC)
- Monitor ongoing use of substances to sleep
- Try to enlist family members for help in increasing compliance



CBT-I

- Encourage difficult patients to check in during the week
- Reinforce ANY behavioral change no matter how small
- Expect an initial increase in sleepiness especially in response to sleep restriction
- Consider a therapeutic contract



Introducing CBT-I

- Set realistic expectations!!
- Tx is hard work and requires due diligence and tenacity
- Patients will typically “get worse” before they get better – this is a short-term phenomena and should be anticipated
- Improvement seen in 5-10 sessions

Treatment Session Outline for Insomnia

- Sessions 1 & 2 (90 mins each) –
In-depth assessment and collection of
baseline data (sleep diaries, Beck
Depression Inventory, STAI, PSQI,
DBAS, Insomnia Severity Index)

Treatment Session Outline for Insomnia

- Treatment Session #1

- 1) Self-monitoring

- Review sleep diary, answer questions
 - Reinforce *any and all* effort

- 2) Program overview

- Educational: Promoting good SH practice

- Behavioral: Identifying and changing maladaptive sleep habits



Treatment Session Outline for Insomnia

Cognitive: Reframing dysfunctional beliefs/attitudes

Physiological: Identify tension and establish relaxation schedule

Medication: Plan schedule for tapering sleep meds

Treatment Session Outline for Insomnia

- 3) Set treatment agenda
- 4) Nature of self-mgmt approach
- 5) Conditioning explanation of insomnia
- 6) Provide education/facts about sleep
- 7) Goal setting and contract

Treatment Session Outline for Insomnia

- Treatment Session #2
 - 1) Review self-monitoring
 - 2) Sleep hygiene education (eg, caffeine, alcohol, nicotine, exercise, bedroom ambience, adequate wind down
 - 3) Begin medication titration
 - 4) Introduction of behavioral procedures (SC & SR) with treatment rationale

Treatment Session Outline for Insomnia

- Treatment Session # 3
 - 1) Review self-monitoring
 - 2) Review medication titration
 - 3) Review of problems encountered in home practice and generation of methods to enhance compliance (eg., activities to engage in when out of bed, securing support from partner, etc.)

Treatment Session Outline for Insomnia

- Treatment Session #4
 - 1) Review self-monitoring and homework, medication titration
 - 2) Introduce prescribed worry log/day review
 - 3) Introduce 16 group progressive muscle relaxation and mindful breathing exercises

Treatment Session Outline for Insomnia

- Treatment Sessions #5-9
 - 1) Review self-monitoring and homework
 - 2) Introduce and implement cognitive therapy component with written thought records

Treatment Session Outline for Insomnia

- Treatment Session #10
 - 1) Review self-monitoring and homework
 - 2) Review integration of ALL treatment components
 - 3) Maintaining treatment gains and relapse prevention -

Treatment Session Outline for Insomnia

- A) Distinction between lapse, relapse, collapse
- B) Inevitability of poor night and caution against over interpreting this as “evidence” that insomnia has returned
- C) Identify high-risk “trigger” situations and responses
- D) Tips for coping with inevitable lapses in sleep and dealing with daytime consequences



Clinical case material

- Patient #1 –
- 28 yr old single, highly successful business woman reported severe sleep-onset difficulties for past 7 months with increasing attendant anxiety/panic about going to sleep. Patient denied any previous hx of sleep difficulties (“I always slept so well”) and denied any personal stress at work or in her long-term relationship although she had lived through 9/11 just 9 months prior. After much inquiry, patient “remembered” that her sleep difficulties began in Japan the night after a long transcontinental flight after which she had an important business meeting

Pt #1 - Case

Conceptualization

- Misattribution of initial sleep difficulty paramount – pt primarily read on the 13 hour plane ride which coincided with her natural nocturnal sleep cycle, getting little sleep on the plane but enough to advance her internal sleep clock. Pt could not then sleep on new time and paced the hotel room the entire night unable to distract herself (no reading material, TV in Japanese). By the morning, she was convinced she had a “severe problem” and didn’t know how she would function at the mtg the next day or on the entire trip
- Pt particularly susceptible at this time due to excessive hyperarousal post 9/11 trauma-exposure (I’ve been so jittery lately”)



Pt #1 Treatment Plan

- PMR/Mindful breathing exercises to reduce her pronounced physiological hyperarousal
- CBT-I for extensive discussion of her misattributing the cause of her problem (jet lag rather than brain disorder)
- Hierarchical systematic desensitization for anxiety ridden sleep-related thoughts paired with deep breathing and relaxation training



Pt #1 Treatment Outcome

- Patient demonstrated rapid improvement within 3 sessions and continued to improve until tx was terminated after 6 sessions (2 clean sleep weeks)
- Pt checks in every few years and reports that she continues to sleep well – In fact she often gives “sleep advice” to fellow co-workers!



Clinical Case Material

- Patient #2 – 57 yr old man who reported steadily eroded sleep for the past 10 years following his separation and subsequent divorce from his wife of 22 years. Sleep difficulties began with SO symptoms and morphed into SM symptoms which persist. Pt watches TV from bed to fall asleep and takes Ambien (10mgs) almost every night for past 7 years but awakens about 5 hours after SO at which time he stays in bed and watches more TV “to fall back asleep”. While the pt is a successful attorney, he was concerned that his sleep was negatively impacting his work performance and hindering his ability to resume dating. Pt also reports drinking 3-6 cups of coffee/day to “stay alert” and often tried to go to bed early and sleep in on weekends to “catch up”

Pt #2 - Case

Conceptualization

- First and foremost, poor sleep hygiene (excessive caffeine usage; poor stimulus control; irregular sleep schedule) and dependency on external variables (Ambien, TV) to sleep
- Marked hyperarousal prior to bedtime, most probably related to excessive thinking/worrying about upcoming sleep
- Excessive cognitive activity and safety behaviors (thinking about next day's work, making back up plans if he is "too tired" to function) and distortions in sleep-related thoughts
- Using sleep as a saving-face excuse for not moving forward in his personal life (etc., promotions, dating)



Pt #2 Treatment Plan

- Implement stimulus control (TV at 50 and mid-night awakening) and sleep restriction (1am bedtime; 7am rise time)
- Address significant sleep hygiene issues (caffeine, alcohol, removing the clock from bedside, implement regular exercise program after work)
- Explanation of medication habituation affects and begin immediate titration
- PMR, mindful breathing/meditation and mind dumping log to reduce “racing mind” and release excessive skeletal tension



Pt #2 Treatment Plan

- CBT-I targeted towards misattribution of insomnia consequences, b/w thinking, perceived loss of control w/ catastrophic negative prediction making
- Prescribed staying up all night (test catastrophic consequences cognition)
- Discuss the real causes of his relationship and work competency issues and his “terror” of not sleeping well

Pt #2 Treatment Outcome

- After an initial bottoming out (2 reported “sleepless nights”), patient’s sleep began to improve markedly w/in 5 weeks of strict SH/SC/SR guidelines – SR moved backwards by 20 mins/wk when he achieved a SE > 85%
- After 3 weeks of MB/PMR, patient also reported feeling less “jacked up” at bedtime and began to “forget” to think about upcoming sleep
- Medication titration quite difficult at first but abated significantly after 3 weeks
- 10 week course of CBT-I challenged the underlying distorted thinking pattern and led to a number of insights and new ways of thinking about his divorce, work issues and his fear of dating again for fear of rejection



Clinical case material

- Patient # 3 – 66 yr old married woman with long hx of sleep difficulties (>45 years). Patient also reports long-standing history of anxiety and depression (58 on STAI-T and 29 on BDI) and yet has never had adequate tx. Pt is currently taking 100mgs Trazodone, 1.5mg of Klonopin and 10-15mgs of Ambien nightly for over 15 years and reports some morning confusion and memory loss including night eating. Patient reports that she was never a good sleeper and SO difficulties first began when she left home for college, then morphed to SM and now marked primarily by early morning awakening (4:30-5am) and non-restorative sleep. Patient also VERY worried about negative health consequences of loss of sleep.

Pt #3 - Case

Conceptualization

- Significant issues with regulating negative affect esp. depression deemed primary, particularly the ruminative coping style
- Patient's waking hours dominated by ruminative thinking about how bad she feels all day long and how will she ever sleep again
- Excessive and potentially dangerous medication cocktail
- Extensive SC and SH issues -



Pt #3 Treatment Plan

- Address SH and SC issues and implement a regular low-impact daily exercise regimen at 6pm
- Delay bedtime until 11pm (from 9-9:30pm)
- Reduce Ambien intake immediately to no greater than 5mgs, then none after a week. Reduce Klonopin to 1mg immediately
- Introduce moving guided imagery and MM
- Pt educated that her ruminative/worrying was more dangerous to her health than the sleep loss



Pt #3 Treatment Plan

- Introduce Behavioral Activation and CBT for tx of depression/anxiety with detailed thought records and daily activity charts
- Introduce moving guided imagery and MM to be practiced 2-3x/day including at bedtime
- Daily light therapy (30 mins in evening) for delay of sleep schedule, enhanced mood regulation and improved energy in am



Pt #3 Treatment Outcome

- Pt responded dramatically to information about rumination and sleep loss and immediately began efforts to target and down regulate this behavior with good success – Pt reported that this led to her first noticeable improvement in her mood in decades
- Pt was also able to reduce initial medication intake but had some difficulties after the first titration round



Pt #3 Treatment Outcome

- Pt also reported that daily monitoring of behaviors (BA) and trigger-thoughts-emotions helped her to understand that there is a discernable pattern to her behavior and that she had considerably more control over her moods than she presumed
- Pt began to sleep thru the night and delay her wakeup by 60-90 minutes within 10 sessions
- After 15 sessions, pt reported that she was remembering dreams again and felt much more energized when she awoke



Pt #3 Treatment Outcome

- While she still reported feeling blue and somewhat nervous much of the time, her STAI score fell to 44 and her BDI score fell to 12, significant decreases indicating mild anxiety/depression
- Ambien withdrawal complete within the month with lower doses achieved of her
- Klonopin (.75mg), and Trazodone (75 mgs)
- Pt in tx for 18 months and continues to be seen bi-weekly for maintenance