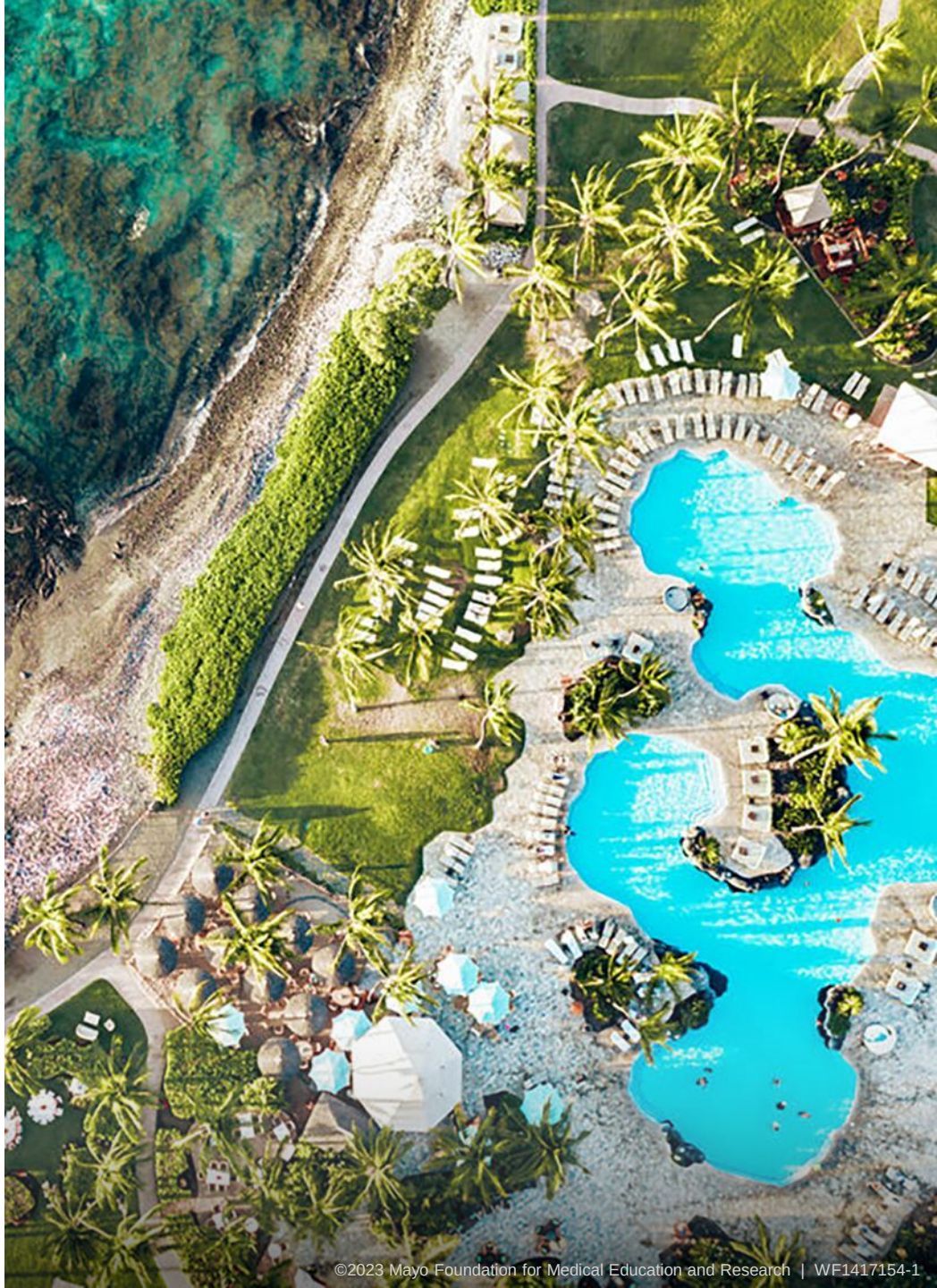
MAYO CLINIC | School of Continuous Professional Development

PSYCHIATRY CLINICAL UPDATES 2023

March 7-10, 2023
Fairmont Orchid
Kohala Coast, Big Island, Hawaii



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SEASONAL AFFECTIVE DISORDER

ITS NOT A REAL DIAGNOSIS!

Craig N. Sawchuk, PhD, ABPP
Co-Chair Clinical Practice and Integrated Behavioral Health, Department of Psychiatry and Psychology
Mayo Clinic, Rochester

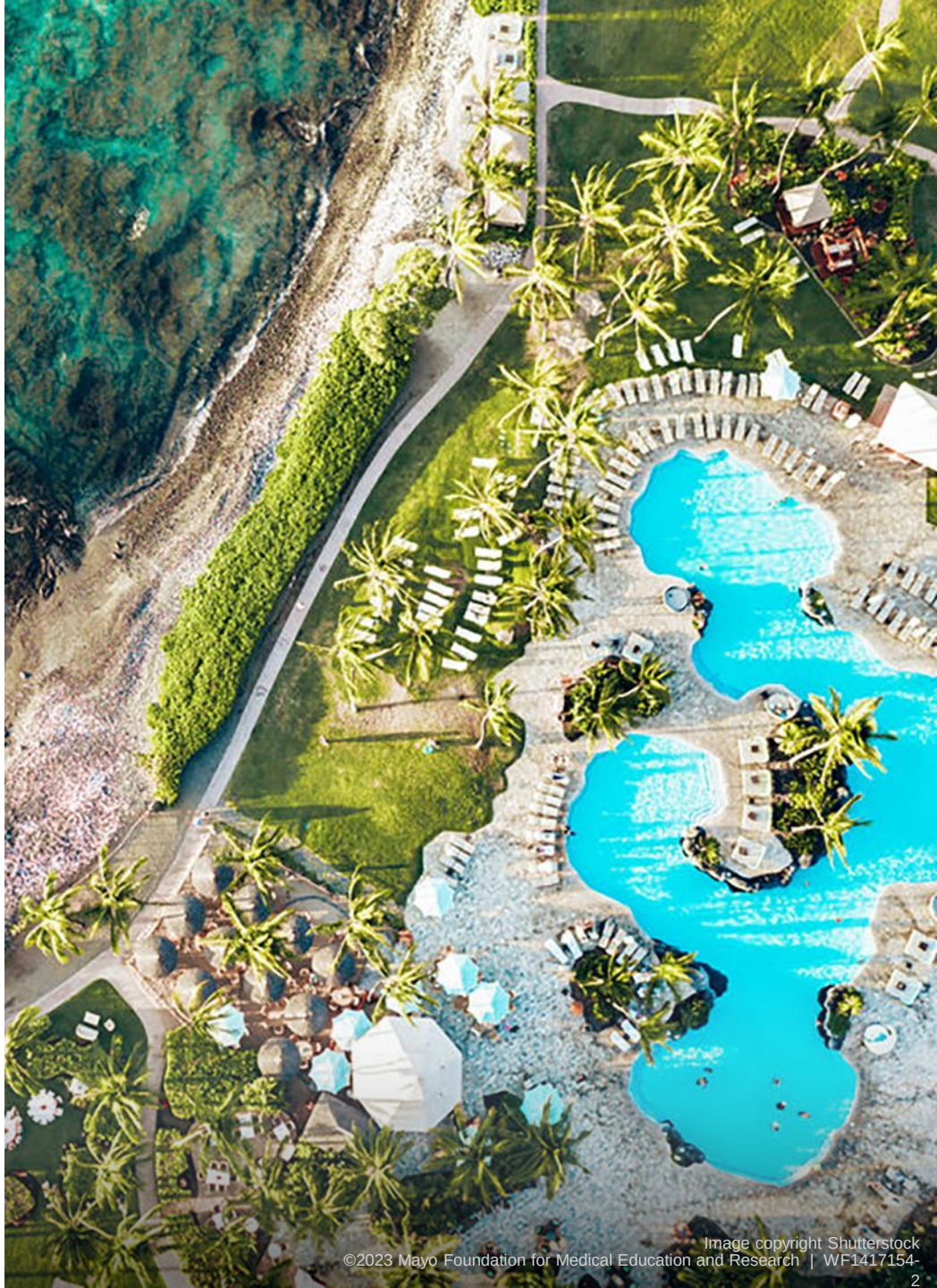


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DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIP(S) WITH INELIGIBLE COMPANIES

- Nothing to disclose

REFERENCES TO OFF-LABEL USAGE(S) OF PHARMACEUTICALS OR INSTRUMENTS

- Nothing to disclose

All relevant financial relationships have been mitigated.

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LEARNING OBJECTIVES

- Describe how to establish a recurrent mood disorder diagnosis with seasonal features
- Name at least one lifestyle factor that can help manage seasonal depression
- Describe how to use a lightbox in the treatment of seasonal depression

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WHAT'S IN A NAME?

- Norman Rosenthal, MD on the move

- Rosenthal et al. Seasonal affective disorder: A description of syndrome and preliminary findings with light therapy. *Archives of General Psychiatry*, 1984;41:72-80.

- First introduced as a specifier in the DSM-III-R

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RECURRENT MOOD DISORDERS (DSM-5-TR)

- Establish criteria for Major Depressive Disorder, Bipolar I or II Disorder
- With Seasonal Pattern specifier criterion:
  - **Reliable <u>onset</u>** of mood change during a particular time of year; not due to psychosocial stressors, anniversaries, etc
    - Bipolar: depression, mania, hypomania
  - **Reliable <u>remission</u>** of mood disruption during a specific time of year
    - Bipolar: switch from depressed to mania/hypomania, vice versa
  - **Established <u>2-year pattern</u>** of mood episodes demonstrating temporal seasonal relationship in the absence of non-seasonal episodes
  - Across lifetime, number of seasonal episodes substantially outnumbers number of non-seasonal episodes

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PREVALENCE AND PATTERNS

- Lifetime prevalence = 0.4%-2.9%-9.7% adults; 3.3%-4.2% children
- Higher rates in Northern latitudes (North America > Europe)
  - Good to be from Iceland!
- Fall/winter depression with spring/summer remission most common
- Average age of onset 20-30 years; likelihood declines with age
- 3-5 times more likely among women
- Higher incidence among first degree relatives; 29% variance twins
- Incidence may be higher among those with anxiety, ADHD, PDD

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FALL/WINTER ONSET (HIBERNATION SYNDROME)

- Sad, blah
- Fatigue, slowed movements
- Heaviness in limbs
- Hypersomnia
- Hyperphagia with carbohydrate cravings
- Weight gain
- Varies in symptom intensity and disruption (e.g., winter blues)
- Summer-onset = more typical depressive symptoms

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BIPOLAR PRESENTATIONS

- May be up to 20% of SAD cases bipolar; BPII > BPI
- Early onset mood disorders with seasonal component: BPII > MDD > BPI
- Depression > hypomania > mania presentations

McCarthy et al., 2022; Yeom et al., 2021

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WHAT'S GOING ON?

- Environmental/climate, cultural, genetic variability
- Diminished light = phase shift in circadian rhythms
  - Sleep-wake cycle; melatonin secretion; hormone levels
- Decreased serotonergic and dopaminergic action
  - Increased SERT protein transport
- Suprachiasmatic nucleus (SCN) in the anterior of the hypothalamus (master regulator)
- Clock genes
- Variable evidence for vitamin D deficiencies

McCarthy et al., 2022; Melrose, 2015

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SCREENING

- **Seasonal Pattern Assessment Questionnaire (SPAQ)**
  - 17 questions (demographics, climate living, symptoms x month)
  - Q #11: assesses seasonal variations across 6 domains: sleep length, social activity, mood, weight, appetite, and energy level
  - 0 = no change, 4 = marked change
  - Global Seasonality Score = 24; 11 ≥ probable SAD (mean = 16)
- **Additional measures to consider:**
  - Structured Interview Guide Hamilton Rating Scale-SAD (SIGH-SAD)
  - Patient Health Questionnaire 9 (PHQ-9)
  - Altman Self-Rating Mania Scale (ASRM)
  - Generalized Anxiety Disorder 7 (GAD-7)
  - Alcohol Use Disorders Identification Test (AUDIT)
- Collateral information; app-based mood monitoring

Rosenthal et al., 1984

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AIN’T NO CURE FOR THE SUMMERTIME BLUES

- Lifestyle approaches
- Light therapy
- Cognitive Behavioral Therapy
- Pharmacotherapy



LIFESTYLE APPROACHES

- Get up
- Get moving
- Get connected
- Exposure to natural light
  - Indoor light @400 lux
  - Cloudy day @3,000 lux
  - Bright sunny day @50,000 lux
- Snow birding (if possible)
- Lightbox therapy (NOT tanning beds)
- Vitamin D supplementation?



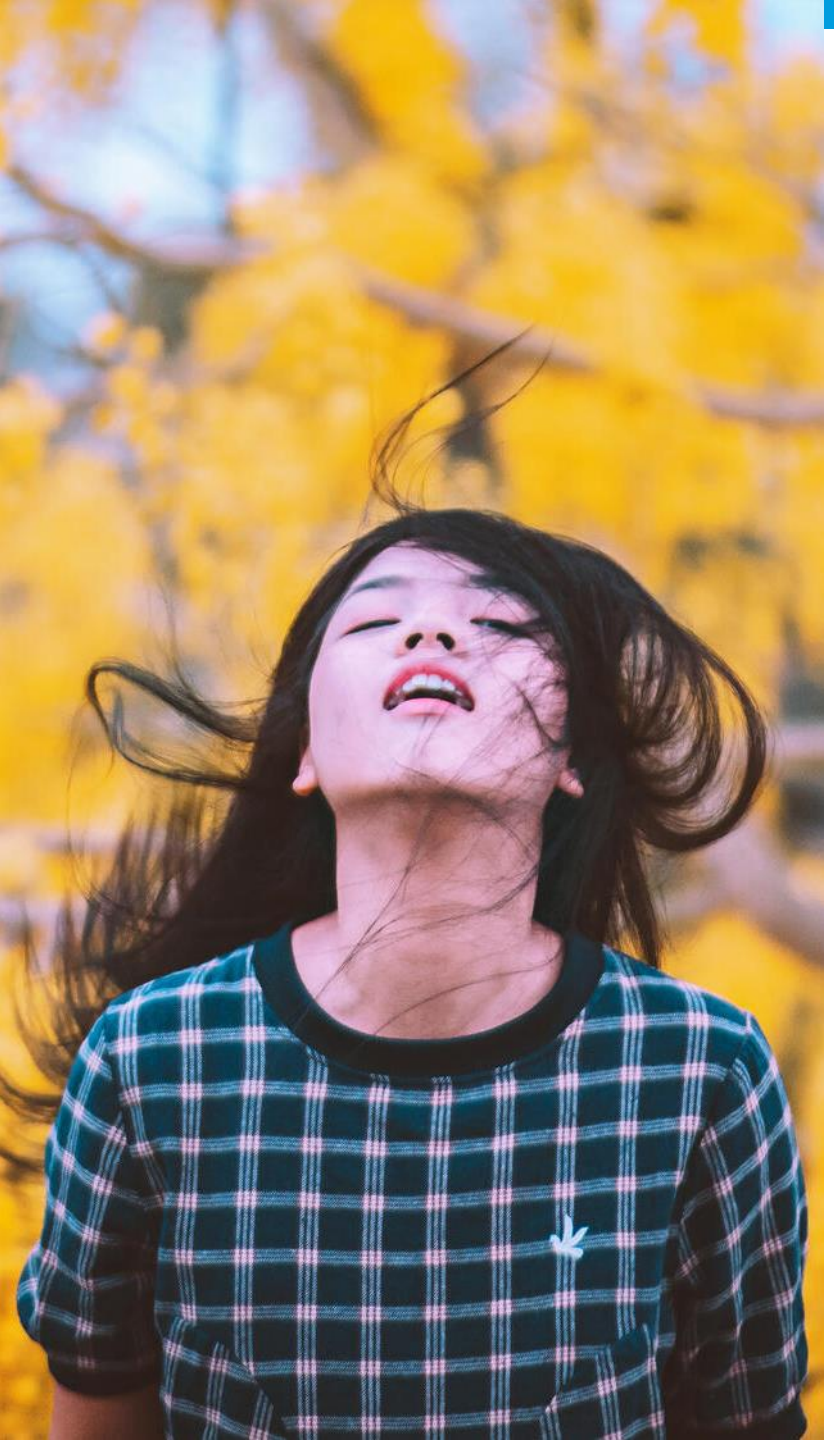
HERE COMES THE SUN



- Meta-analyses for SAD light therapy (effect size = 0.84)
- Considered first-line treatment for MDD
- Soft white = blue enhanced light
- Easily tolerated, few side effects
- Contraindications: macular degeneration, retinal disease, photosensitive medications
- Meta-analyses for nonseasonal depression (effect size = 0.53)

Golden et al., 2005; Lam et al., 2016; NICE 2020; Ravindran et al., 2016

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LIGHT THERAPY

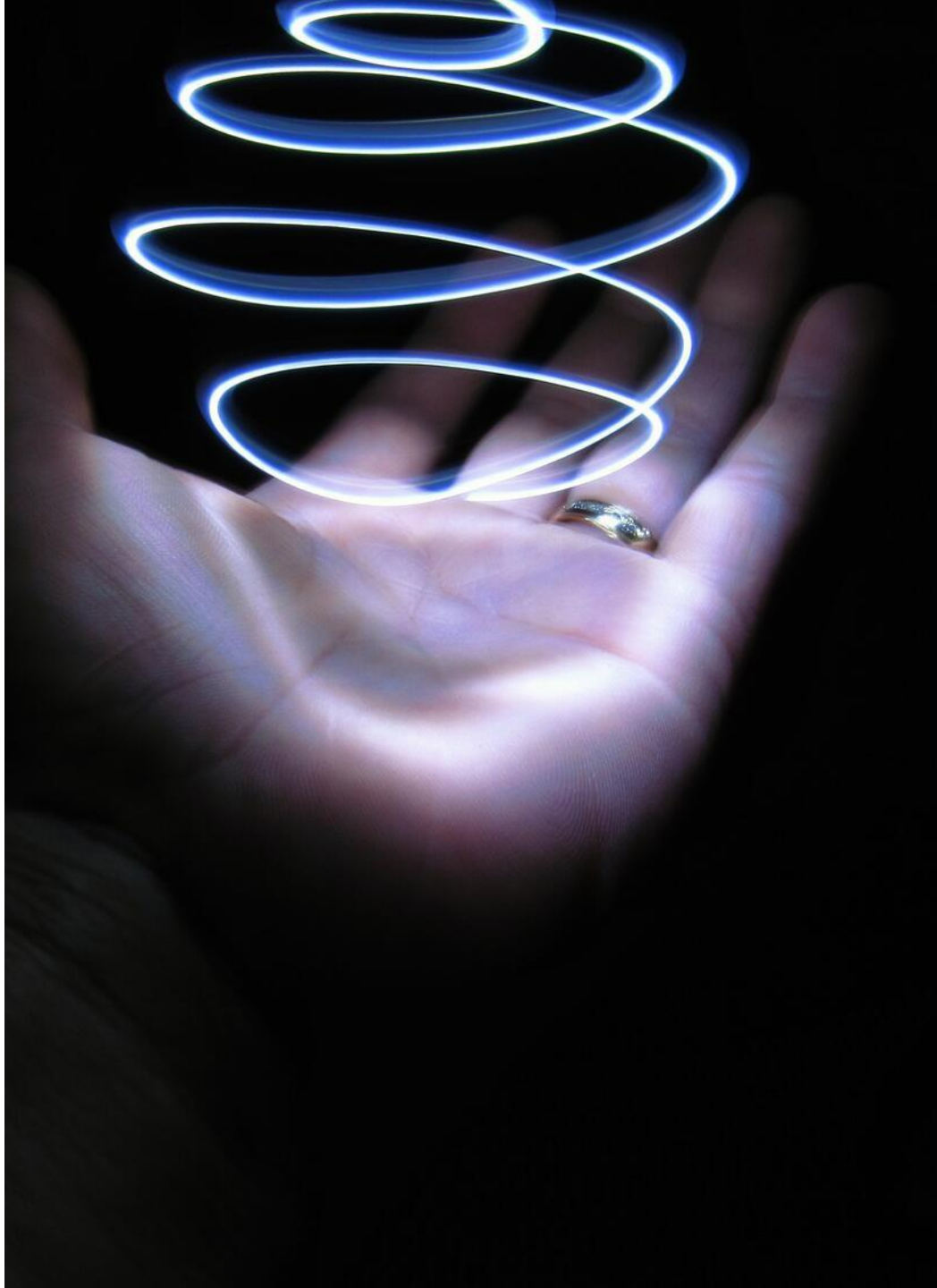
- 10,000 lux lightbox
- Use for 20-30 minutes within the first hour of waking up
- Place about at arms length; eyes open but don’t stare!
- Start about 2 weeks ahead of usual time mood declines
- Typically notice improvements within 2 weeks
- Maintain for at least 6 weeks or continue until seasonal point in which mood symptoms usually remit; relapse usually within 1-3 weeks dc
- Can adjust the dose (frequency, duration)
- Cost and portability

Lam et al., 2016;
Westrin & Lam, 2007

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BLINDED BY THE LIGHT: ADDITIONAL THOUGHTS

- Lower lux = more time
- Triggering mania/hypomania
- “Booster” light therapy sessions
- Dawn simulators (effect size = 0.73)
- Finnished with ear buds
- Conferences in Hawaii



COGNITIVE BEHAVIORAL THERAPY (CBT)

- Targets psychological responses to seasonal symptoms
  - Behavioral activation
  - Cognitive therapy (Seasonal Beliefs Questionnaire)
- Comparable outcomes to LT
  - Remission rates @47%
  - Equivalent time to overall remission
  - LT quicker remission of early insomnia, hypersomnia, anxiety, and social withdrawal
- Maintenance of gains; CBT superior to LT at 2-year follow up

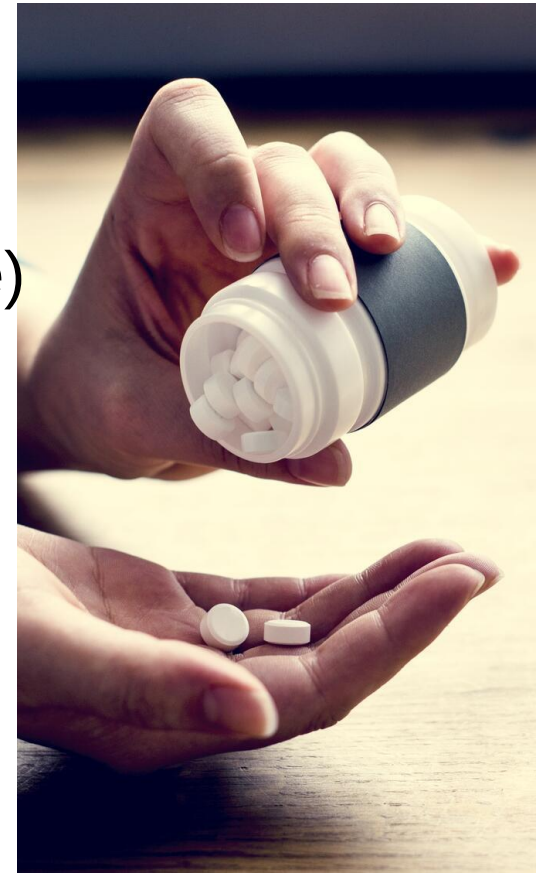


Meyerhoff et al., 2018; Rohan et al., 2015, 2019, 2020

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PHARMACOTHERAPY

- **Selective Serotonin Reuptake Inhibitors**
  - Fewer trials, smaller sample sizes (fluoxetine, sertraline)
  - Fluoxetine comparable response to light therapy
  - CANMAT no demonstrated superiority (level 2 and 3 evidence)
- **Serotonin Norepinephrine Reuptake Inhibitors**
  - Limited evidence: duloxetine
- **Other agents**
  - Agomelatine (melatonergic impact)
  - Moclobemide
- **Prophylactic treatments**
  - Prophylactic > active phase
  - Bupropion extended release



Kennedy et al., 2016; Modell et al., 2005; NICE, 2020; Pjrek et al., 2008

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BIPOLAR SAD TREATMENT

- Mood stabilizers: maintain year-round, especially with BPI; may include seasonal variations in dosing (increasing dose during spring/summer)
- No evidence for specific agent for seasonal manic episodes
- Antidepressants: select those with efficacy for unipolar SAD or nonseasonal BPD; not as a monotherapy
- Light Therapy for seasonal depression: start low and go slow (5-10 mins/day; monitor)
- Psychotherapy: CBT, IPSRT

Roecklein et al., 2010; Yatham et al., 2018

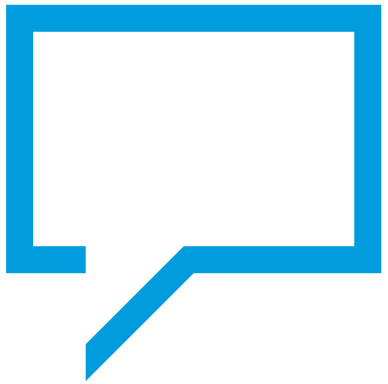
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RESOURCES

- UBC Mood Disorders Centre
  - Evidence-Based Management of SAD: Clinician Resource Package
- National Health Service: SAD
- *A Clinician's Guide to Using Light Therapy* (Lam & Tam, 2009)
- *Winter Blues: Everything You Need to Know to Beat Winter Depression* (Rosenthal, 2012)
- *Winter Blues Survival Guide* (Rosenthal & Benton, 2013)



QUESTIONS & DISCUSSION



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