

# ***Seasonal Affective Disorder***

***1.0 Contact Hour***

***Presented by:***

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# Seasonal Affective Disorder

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## Learning Objectives

1. Define Seasonal Affective Disorder (SAD).
2. Explain the symptoms that differentiate SAD from other mood disorders.
3. Define the typical patient who is more prone to SAD.
4. List the names of patient questionnaires that may assist a clinician in making a diagnosis of SAD
5. Explain the most effective treatment for SAD, and its possible mechanism of action.

On May 16, 1898, the intrepid Arctic explorer Dr. Fredrick A. Cook made the following notation in his journal:

“The winter and darkness have slowly but steadily settled over us...it is not difficult to read in the faces of my companions their thoughts and moody dispositions. The curtain of blackness which has fallen over the outer world of icy desolation has descended upon the inner world of our souls. Around the tables men sitting about sad and dejected, lost in the dreams of melancholy from which, now and then, one arouses with an empty attempt at enthusiasm. For brief moments some try to break the spell by jokes, told perhaps for the fiftieth time. Others grind out a cheerful philosophy, but all efforts to infuse bright hope fail.”<sup>1</sup>

This is a classic expression of the symptoms of Seasonal Affective Disorder (SAD). Seasonal Affective Disorder is defined as a mood disorder characterized by depression associated with shorter periods of daylight. The great majority of people experience some seasonal changes in feelings of well-being and in behavior. At one end of the spectrum are people who have few, if any, symptoms as the seasons change. Then there are those who experience mild changes that easily can be accommodated in the course of their everyday lives. The third group find these changes a nuisance; not worth talking about to their clinician, but troublesome nevertheless. This group may be suffering what is commonly known as the “winter blues.” But at the far end of the spectrum are those with SAD, whose changes in mood and behavior are so powerful that they produce significant changes in their lives.

How common is SAD? Surveys estimate that 4% to 6% of the general population experiences winter depression while another 10% to 20% have subclinical features. The ratio of women to

men with SAD is 4:1, with the average age onset of approximately 23 years-old. Children can be afflicted with SAD also. Studies of childhood cases of SAD suggest a prevalence rate of between 1.7% and 5.5% in children between the ages of 9 and 19 years-old.<sup>2</sup>

So who is most susceptible to SAD? The typical SAD patient is female, 12 to 34 years old and married. Happily married people seem to experience a lower incidence of SAD than those who are single. Because women suffer from SAD more than men do, speculation exists that SAD may be hormonally related. The incidence of SAD increases after puberty and decreases postmenopausally; however, some researchers suggest that this result may be due to selection bias and therefore may distort the sex ratio. A genetic component may also be suspect, while some data point to a possible connection between childhood Attention Deficit Disorder and overeating women with SAD.<sup>3</sup>

How would someone know if they themselves or someone they know have SAD? The hallmark of SAD is the onset and remission of major depressive episodes at characteristic times of the year. Somatic symptoms are commonly the chief complaint, with the most difficult times in January and February. The symptoms of weight gain, loss of libido, depression, crying, a craving for sugary or starchy foods, excessive eating and sleeping are all possible symptoms of SAD. Then spring comes with longer daylight hours, and a whole new person seems to emerge, with more energy, loss of weight and a much happier disposition. It's also possible for some people who work in buildings without windows to experience SAD-like feelings.

The possible causes of this disorder could be linked to melatonin, a sleep-related hormone secreted in the pineal gland within the brain. Melatonin, which may cause symptoms of depression, is produced at increased levels in the dark; therefore, when the days are shorter and darker, the production of this hormone increases.

The diagnosis of SAD is based on the clinical interview. Seasonal-pattern disturbances can be identified by way of a number of self-reporting instruments developed for the diagnosis of SAD. The Seasonal Pattern Assessment Questionnaire (SPAQ) is a two-page assessment tool that allows patients to identify seasonal patterns and specify patterns of occurrence. The Beck Depression Inventory frequently is used to assess the severity of depressed mood in SAD. The Structured Interview Guide for the Hamilton Depression Rating Scale-Seasonal Affective Disorder revision (SIGH-SAD) and the Hypomania Interview Guide are also widely used.<sup>2</sup>

Seasonal Affective Disorder should not be confused with other mental health issues. Seasonal stressors, such as seasonal unemployment or anniversary reactions such as the death of a loved one in winter, can lead to recurrent fall and winter depression that can be mistaken for SAD. Major depression, panic disorders and anxiety disorders must be ruled out. Thyroid function should also be evaluated; hypothyroidism can mimic depression and SAD and can easily be mistaken for other problems.

## **Treatment**

Studies using fluoxetine (Prozac©) and sertraline (Zoloft©) showed better improvement than did placebo<sup>4</sup>, but phototherapy has demonstrated the most success. The antidepressive effect of light is believed to result from light's suppressive effect on melatonin, which has been implicated in the regulation of sleep and mood in humans.

Light therapy is initiated with a 10,000-lux light box directed toward the patient at a downward slant. The patient's eyes should remain open throughout the treatment session, although staring directly into the light source is unnecessary and is not advised. The patient should start with a single 10- to 15-minute session per day, gradually increasing the session's duration to 30 to 45 minutes. Sessions should be increased to twice a day if symptoms worsen. Ninety minutes a day is the conventional daily maximum duration of therapy. The patient can sit in front of the light, doing daily activities such as reading, eating or watching television.<sup>2</sup>

Commercially available fixtures are recommended over home-made devices to reduce electrical risks associated with poor-quality construction. Commercial fixtures also include features designed to protect the eyes, such as light-dispersion screens and screens that eliminate ultraviolet radiation. Fluorescent light is preferred over incandescent light because the small point-source of the latter is more conducive to retinal damage. Before light therapy is initiated, a baseline eye examination is recommended, with regular follow-ups scheduled after the initial evaluation. It is also a good idea to have a full psychological or psychiatric work up prior to beginning light therapy; sometimes a psychiatric problem may be masquerading as SAD. Sitting still for 30- to 45-minutes each day may not be an option for some people; for these people a light visor may be a good option. Compact light boxes can even be taken to work and set-up on the desk.

Since one of the symptoms of SAD is difficulty in wakening in the morning, some find it helpful to have the light turn-on just before they are suppose to wake up. Some people use a "Dawn Simulator" which is a bright light that is programmed to gradually increase its intensity such that it reaches full intensity for whatever the user has set.

Researchers have found that 75% of their patients prefer to use their lights in the morning, 17% used them in the evening and 8% used a combination morning and evening schedule.<sup>2</sup> Studies that show a better outcome with morning use versus evening use are mixed, so the timing of a light treatment should be left to a patient's preference. Most patients learn that the best effect is when treatment is timed to their own circadian rhythm.<sup>5</sup> Another advantage of light therapy over oral medication is for treatment of depression during pregnancy or during breastfeeding – this would eliminate any potential negative side-effects for the fetus or the infant.<sup>6</sup>

Seasonal Affective Disorder can be depressing, but now psychotherapy, medications and light therapy can make your patient feel better and be more productive.

## **References**

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