

# **Seasonal Affective Disorder**

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#### Abstract

It is common for people to experience brief episodes of sadness or feeling unlike themselves. Such mood swings may persist with changing seasons, become more severe, and impact a person's feelings, thoughts, and actions. Although the leading cause of it is unclear, Seasonal affective disorder (SAD) is a common mood disorder that people face in winter months due to the brain chemistry reactions to reduced sunlight and shorter days (Johns Hopkins Medicine, 2021). As students of Boston University's (BU) Graphic Medicine Club (GMC), we wanted to find ways to improve health literacy amongst BU students and provide the necessary health resources to help students. Two content creators of GMC worked together to create this comic and split the task of typography and illustration. This comic utilizes visuals and text to explain the common symptoms and treatment methods for SAD. Through our work at the intersection of art and medicine, we hope to offer a creative avenue for conversations about health topics such as SAD and provide informative narratives to others.

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### INTRODUCTION

Seasonal Affective Disorder (SAD), sometimes referred to as winter depression or seasonal depression, is a form of mood illness marked by recurrent episodes of depression that persist in individuals in the fall and winter when there are fewer daylight hours (Johns Hopkins Medicine, 2021; Mayo Clinic, 2021). SAD is regarded as a subtype of bipolar disorder or major depressive illness (National Institute of Mental Health, n.d.). Other symptoms of SAD include weight gain, cravings for carbohydrate foods, and increased sensitivity to social rejection.

The exact cause of SAD is unknown. However, it is thought to be connected to modifications in the circadian rhythm, the body's internal clock, and problems synthesizing specific neurotransmitters, like melatonin and serotonin, which are essential for controlling mood and sleep cycles (Vasey et al., 2021). Since sunshine helps control these hormones, less exposure to it throughout the winter may contribute to the development of SAD.

We contacted Boston University's (BU) Student Health Services (SHS) to discuss how the daylight savings and early sunset at 5:30 pm may affect our health. We decided to collaborate with SHS to explore Seasonal Affective Disorder (SAD), which comes in varying degrees. Many people often experience symptoms of SAD during the winter months, as the sun begins setting much earlier and the weather becomes significantly colder. SHS provided the researched statements about SAD, including the definition, common symptoms, treatments, and BU-specific resources concerning therapy and phone call options. Definitions, common symptoms, and treatment options were verified using resources from Mayo Clinic, Johns Hopkins, and National Institute of Mental Health (NIMH). We decided to collaborate with SHS to explore Seasonal Affective Disorder (SAD), which comes in varying degrees. Many people often experience symptoms of SAD during the winter months, as the sun begins setting much earlier and the weather becomes significantly colder.

SAD treatment may involve applying multiple methods according to the patient's demands. For SAD, light therapy, also known as phototherapy, is a popular and successful treatment (Praschak-Rieder & Willeit, 2003). It entails spending a certain amount of time every day, usually in the morning, in front of a bright light box that simulates natural sunlight. Reduced symptoms of depression are achieved by light treatment by balancing the body's internal clock and neurotransmitter levels (Praschak-Rieder & Willeit, 2003). Other treatments for SAD include antidepressants, dietary modifications, sleep hygiene, vitamin D supplements, hormonal therapy, and the use of neurotransmitters requiring DSM-5 primary diagnostic criteria (Munir & Abbas, 2024). Additionally, in severe cases, doctors may also prescribe medications like bupropion or selective serotonin reuptake inhibitors (SSRIs) to treat SAD symptoms (National Institute of Mental Health, n.d.). Because SAD is a recurring condition, treatment requires proper planning and management when using different treatment methods (Munir & Abbas, 2024).

Making changes to one's lifestyle can also be quite helpful in managing SAD. Getting enough sleep, controlling stress, eating healthily, and regular exercising can all help to elevate mood and general well-being (Aguilar-Latorre et al., 2022). Furthermore, spending more time outside during the day, especially in the morning, can increase exposure to natural sunlight.

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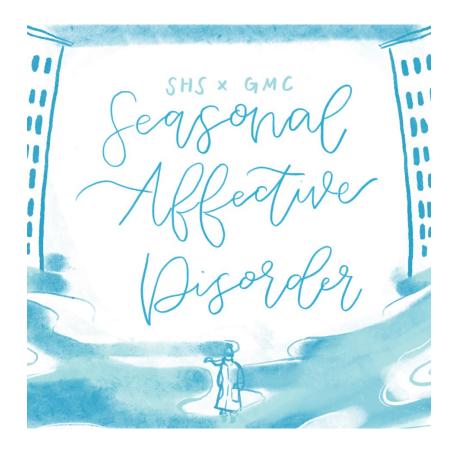
#### PROCESS

In creating the comic, we used a selective color palette, a flowing font, and a minimalist art style to create the imagery of SAD. We contrasted cool blues and warm yellows to represent the feelings the disorder can bring and offer information about treatments that can alleviate symptoms. Furthermore, we decided to compliment the brush calligraphy cursive heading style with a similar organic art style to capture the overwhelming emotions and self-alienation with curling, frantic brush strokes, and negative space.

In concert with GMC, we worked together to create this comic and split the task of typography and illustration. The selective color palette, flowing font, and minimalist art style created the imagery of SAD. The result of combining the comic style with the medical information was an opportunity to raise awareness with struggling peers.

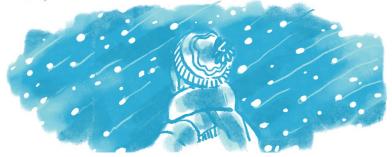
## CONCLUSION

Seasonal affective disorder can substantially negatively influence a person's quality of life during particular periods of the year and should be recognized as a public health concern. This comic aims to provide information about SAD symptoms and accessible treatment options. For an accurate diagnosis and suitable therapy, individuals who exhibit symptoms of SAD must get assistance from a licensed mental health practitioner.



What is it?

Seasonal Affective Disorder (SAD) is a mood disorder characterized by depression that occurs at the same time every year. Generally people experience it during the winter.



- \* Feeling tired / sluggish
- \* Loss of interest in your favorite activities
- \* Changes in sleep or appetite
- \* Difficulty concentrating
- \* Feeling sad or hopeless
- \* sleeping too much

\* Having thoughts of death



- \* Get some light (even a lightbox works during the winter)
- \* Balance your sleep and aim for 7-9 hours
- \* Take care of yourself (move your body, unwind with your friends, do things you love)





BU student Health Services is here to help !

\* Book an initial appointment online at patient connect. bu. edu

\* If you need to speak with someone urgently, call 617-353-3569





#### REFERENCES

Aguilar-Latorre, A., Pérez Algorta, G., Navarro-Guzmán, C., Serrano-Ripoll, M. J., & Oliván-Blázquez, B. (2022). Effectiveness of a lifestyle modification programme in the treatment of depression symptoms in primary care. *Frontiers in Medicine*, 9, 954644. https://doi.org/10.3389/fmed.2022.954644

Johns Hopkins Medicine. (2021, November 11). *Seasonal Affective Disorder: What You Should Know*. Conditions and Diseases. https://www.hopkinsmedicine.org/health/conditions-and-diseases/seasonal-affective-disorder-what-you-should-know

Mayo Clinic. (2021, December 14). *Steps to keep your mood and motivation steady throughout the year-Seasonal affective disorder (SAD)—Symptoms & causes*. Mayo Clinic. https://www.mayoclinic. org/diseases-conditions/seasonal-affective-disorder/symptoms-causes/syc-20364651

Munir, S., & Abbas, M. (2024). Seasonal Depressive Disorder. In *StatPearls*. StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK568745/

National Institute of Mental Health. (n.d.). *Seasonal Affective Disorder—National Institute of Mental Health (NIMH)*. Retrieved April 16, 2024, from https://www.nimh.nih.gov/health/publications/seasonal-affective-disorder

Praschak-Rieder, N., & Willeit, M. (2003). Treatment of seasonal affective disorders. *Dialogues in Clinical Neuroscience*, 5(4), 389–398. https://doi.org/10.31887/DCNS.2003.5.4/npraschakrieder

Vasey, C., McBride, J., & Penta, K. (2021). Circadian Rhythm Dysregulation and Restoration: The Role of Melatonin. *Nutrients*, 13(10), 3480. https://doi.org/10.3390/nu13103480