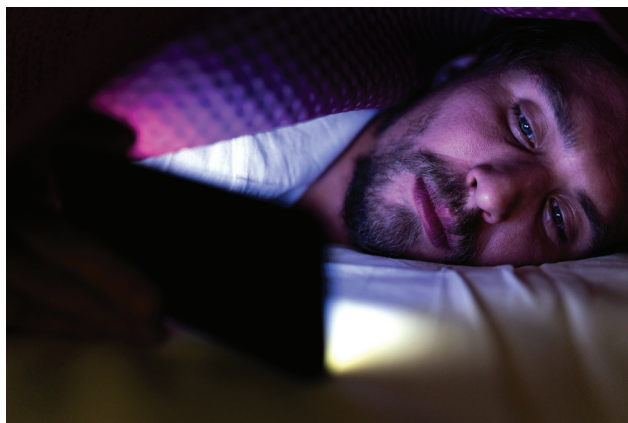


Out of the blue? How the colour of light could be used to treat mental illness

Level 2: Intermediate

1 Warmer

a. Discuss these questions.



1. What is happening in the picture that might have an effect on someone's sleep?
2. Have you ever felt bad because of a bad night's sleep? What happened?
3. How can the design of a room (light, colour, layout) change how people feel?

2 Key words

a. Match the correct word to each definition. Then find them in the article to read them in context.

burden	intervention	implement	anecdotal	wavelength
acute	disruption	layout	mounting	suppress
circadian	funding	melatonin	psychiatrist	trigger

1. _____ : a doctor who treats mental health problems with medication
2. _____ : a natural chemical in the body that helps you sleep
3. _____ : an action taken to improve or stop a situation
4. _____ : based on personal stories, not strong evidence
5. _____ : the distance between one light wave and the next
6. _____ : describes something that is increasing or growing
7. _____ : money given for a project or activity

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8. _____: to put into action or use
9. _____: related to the natural daily cycle of the body (about 24 hours)
10. _____: something heavy or difficult to carry or deal with
11. _____: something that interrupts normal activity
12. _____: to stop or reduce something
13. _____: the way something is arranged or designed
14. _____: describes something that is very strong or serious
15. _____: to cause something to happen

b. Complete the sentences with words from the previous activity. You might have to change the form of the word.

1. Blue light has a shorter _____ than red light.
2. Most of his ideas are based on _____ evidence from his friends.
3. Paying all the bills alone is a(n) _____ for her, and she finds it difficult.
4. She felt an _____ pain in her leg and couldn't walk.
5. She visited a(n) _____, so she could take something to help with her anxiety.
6. The company wants to _____ a new data safety policy to protect the business.
7. The design and the _____ of the website makes it very easy to use.
8. Levels of _____ in the body increase at night.
9. The school received _____ from the local government for new computers.
10. Storms caused a serious _____ to train services.
11. There is _____ pressure on the company to fix the problem.

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12. This medicine can help to _____ pain in your neck and back.
13. Without early _____ from his teachers, her son could find school very hard.
14. Your _____ rhythm affects when you feel sleepy.
15. Try to avoid stressful situations because they can _____ headaches.

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A psychiatric unit in Norway has been testing its built-in lighting on conditions such as psychosis and depression

Linda Geddes

13 March, 2026

- 1 The psychiatric ward in Trondheim looks much like any other unit caring for patients in acute mental distress. But as evening falls, the lights shift to a soft amber glow. By removing blue wavelengths that interfere with the body's internal clock, doctors here are testing an unusual idea: that the design of the ward itself could become a form of treatment.
- 2 Light is the main signal regulating the body's circadian rhythm the roughly 24-hour biological clock that governs sleep and many other bodily processes. Mounting evidence links circadian disruption to conditions including depression, cardiovascular disease and dementia, and disturbed sleep-wake cycles are a long-recognised feature of mental illness, particularly bipolar disorder.
- 3 "Increasingly, both anecdotal and experimental evidence suggests that bipolar people are quite sensitive to light" said Prof Daniel Smith, a psychiatrist at the University of Edinburgh.
- 4 "The general idea is that evening light exposure, in particular, delays the phase of the clock, suppresses melatonin, and because of that, people go to sleep later and probably don't sleep as well," he said. Poor sleep can then destabilise daily patterns of rest and activity, which in vulnerable individuals may trigger mood episodes.
- 5 Because of this, there is growing interest in using light to stabilise people's body rhythms and, in turn, improve their symptoms although relatively few large clinical studies have tested the idea.
- 6 When doctors in Trondheim began planning a new psychiatric unit, it offered a rare chance to test the idea in practice. The team installed a dynamic lighting system and automated blinds designed to remove blue wavelengths from the ward in the evening.
- 7 "Many patients with severe mental illness have circadian disruption, and we wanted to see whether we could do something about this by changing the light system," said Håvard Kallestad, a researcher and consultant psychologist at St Olavs hospital and the Norwegian University of Science and Technology, who led the research.
- 8 The unit was divided into two identical halves with the same layout, staffing and facilities. The only difference was the evening light environment. In one ward, lighting shifts from 6pm to remove blue wavelengths the type the circadian system is most sensitive to while blinds block similar light from windows and screens. In the other, patients experience standard hospital lighting.
- 9 The research, presented at a recent meeting of the International Society for Bipolar Disorders and published in PLOS Medicine, found that although the overall length of stay was similar — typically three or four days — patients treated in the circadian-adapted ward showed greater clinical improvement and less aggressive behaviour.
- 10 Prof Derk-Jan Dijk, a sleep and circadian rhythm researcher at the University of Surrey, who was not involved in the study, said one of its most interesting aspects was that the intervention was built into the ward itself. "The burden to the participants is essentially zero they don't have to sit in front of a light box or wear blue-blocking glasses."
- 11 Researchers are also exploring whether circadian lighting could benefit people beyond psychiatric wards. The UK's National Institute for Health and Care Research has launched a funding call for trials testing whether it could help "reset" the internal clocks of people living in care homes and reduce behavioural problems in dementia.
- 12 Prof Anthony Gordon, director of NIHR's health technology assessment programme, said: "It's about determining if we can use light therapy to reduce anxiety, improve sleep, and provide a cost-effective, drug-free way to improve the quality of life in residential care across the country."

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3 Comprehension check

a. Answer the questions using information from the article.

1. What is unusual about the lighting in the psychiatric ward in Trondheim?
2. What effect does light have on the body's biological clock?
3. What health conditions are linked to circadian disruption?
4. Which mental disorder is particularly sensitive to light?
5. How does evening light affect melatonin and sleep?
6. What can happen to people when they do not sleep well?
7. What was the difference between the two wards used in the study?
8. What were the main results of the study with patients?
9. Why do researchers think this type of intervention is easy for patients?
10. How might this lighting system be useful outside psychiatric wards (e.g. in care homes)?

4 Key language

a. Complete the sentences from the article with the verbs below.

trigger

govern

delay

interfere with

suppress

By removing blue wavelengths that (1) _____ the body's internal clock.

The roughly 24-hour biological clock that (2) _____ sleep.

Evening light exposure, in particular, (3) _____ the phase of the clock and
(4) _____ melatonin.

Poor sleep can (5) _____ mood episodes.

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b. Match the expressions for cause and effect to their definitions.

- | | |
|------------------|--|
| 1. cause | a. to make something more likely to happen |
| 2. contribute to | b. to originate from a specific situation |
| 3. encourage | c. to make a change happen |
| 4. result in | d. to be the reason that something happens |
| 5. come from | e. to be one of multiple causes |

c. Complete the sentences using the expressions from tasks a and b.

1. The storm could _____ a huge power problem across the island.
2. A lack of exercise is one of the factors that can _____ health problems.
3. Parents should _____ their children to read by giving them interesting books.
4. Failure to follow the instructions may _____ serious injury.
5. His fear of hospitals seems to _____ a bad experience in childhood.
6. Heavy traffic could _____ the arrival of the police and the criminals might escape.
7. The hospital regulations _____ how medical data can be shared between doctors.
8. Using your phone late at night can _____ your ability to fall asleep.
9. This medication is used to _____ body's rejection of the transplant.
10. Certain foods can _____ allergic reactions in sensitive individuals.

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5 Discussion

a. Discuss these statements.

- The only effective treatment for mental illnesses is psychiatric medicine.
- All elements of mental well-being can be influenced by changing someone's environment.
- There would be no significant financial impact from making these changes to the lighting in institutions.

6 In your own words

a. In groups, read this discussion of the use of colour for mental well-being and identify the colours being described.

Careful use of colour in interior decoration can bring about positive changes in mental wellbeing. For example, soft (1) _____ and (2) _____ are often used in bedrooms because they help create a calm atmosphere and their association with nature can encourage better sleep. In contrast, colours such as (3) _____ or (4) _____ interfere with relaxation as they are seen as warning colours. Overall, thoughtful colour choices, combined with good lighting, can contribute to a more comfortable and supportive living environment.

b. In your group, discuss how these other forms of interior decoration could affect mental well-being.

- the organization of objects and the tidiness of the space
- the inclusion of nature and plants
- the layout of the room and furniture
- the sounds in the space and how sounds move around
- the feel of the objects in the space

c. Design the perfect space for your mental well-being (either by drawing it or describing it) and consider how each of the forms of interior decoration would affect you. Try and include the language of cause and effect. Use the example in task a and the sentence starters below to help you.

- *a tidy room can encourage ...*
- *the layout of your room can contribute to ...*

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- *having lots of plants can cause you to ...*
- *sitting on soft chairs and cushions can result in ...*
- *I believe my bad sleep might come from ...*

d. **Present your space to the group and explain the influence that the forms of interior decoration could have on your mental well-being.**