Seasonal Affective Disorder, Grief Reaction, and Adjustment Disorder

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**KEYWORDS**
- Adjustment disorder
- Grief reaction
- Complex grief
- Seasonal affective disorder
- Diagnosis
- Treatment

**KEY POINTS**
- Patients with seasonal affective disorder meet criteria for major depressive disorder or bipolar disorder, with symptoms occurring seasonally and with spontaneous remission that can be treated with phototherapy or antidepressants.
- Grief is a normal response to loss; complex grief affects 7% of patients and is characterized by more severe symptoms that may require pharmacotherapy.
- Adjustment disorder is an abnormal response to a stress that is time-limited and is best treated with psychotherapy.
- Referrals for psychotherapy for counseling or to psychiatry for severe symptoms for all 3 disorders may be indicated.

**INTRODUCTION**

Primary care providers (PCPs) are on the front line for patients experiencing affective disorders and normal or abnormal responses to loss or stressors. Identifying which patients with affective disorders such as major depressive disorder (MDD) or bipolar disorder have seasonality to their symptoms can allow the PCPs to guide the patient to the most appropriate care, including light therapy that is not typically used in other affective disorders. For patients who experience loss or stress, knowing normal and abnormal responses, including the typical temporal course of emotions, can help the PCP design an appropriate treatment plan depending on the severity of symptoms. Most patients with seasonal affective disorder (SAD), grief reactions, or adjustment disorder can be managed in the primary care setting, possibly in conjunction with a therapist.

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SEASONAL AFFECTIVE DISORDER

Symptoms

SAD is not a separate mood disorder from MDD, bipolar 1 disorder, or bipolar 2 disorders. Instead the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) classified SAD as a subtype of these mood disorders with a seasonality of onset and remission.¹ Affective symptoms occur during a particular time of year and then spontaneously remit. Two types of SAD have been described.² Winter-onset SAD is more common and frequently presents with increased appetite, weight, and sleep. Spring/summer SAD is less common and is characterized more often with poor appetite, weight loss, and insomnia. Patients need to meet criteria for MDD (Fig. 1) with full remission as the season progresses.

Diagnostic Tests

Several screening tools can assist in identifying patients with SAD. The Patient Health Questionnaire 2 can identify patients who need additional evaluation for a depressive disorder. The Seasonal Pattern Assessment Questionnaire (SPAQ) is an older instrument that can be used to screen but not diagnose patients who may have SAD.³,⁴ The SPAQ includes changes of mood, appetite, sleep, weight, and social activities across seasons, a rating of how much the changes are a problem to the individual, and consideration of months during which the symptoms are worse (December, January, February for winter SAD; June, July, August for summer SAD). The Seasonal Health Questionnaire (SHQ) is a newer instrument that has improved sensitivity and specificity.⁵ This questionnaire is divided into 6 sections, and probes for the number of times a person has had depression symptoms over the past 10 years lasting more than 2 weeks and the seasonality of the symptoms. Patients who do not screen positive for depression on the initial sections do not complete the remainder of the instrument that assesses for seasonality.

Major Depressive Disorder

<table>
<thead>
<tr>
<th>Depressed mood AND/OR Anhedonia</th>
<th>Other symptoms</th>
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<tbody>
<tr>
<td>• change in sleep</td>
<td>• change in appetite/energy</td>
</tr>
<tr>
<td>• change in appetite/energy</td>
<td>• low energy</td>
</tr>
<tr>
<td>• decreased concentration</td>
<td>• psychomotor changes</td>
</tr>
<tr>
<td>• thoughts of worthlessness or guilt</td>
<td>• thoughts of death or suicide</td>
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<tr>
<td>5 symptoms total for at least 2 wk</td>
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Fig. 1. DSM-5 criteria for the diagnosis of major depressive disorder. (Data from American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th edition. Arlington, VA: American Psychiatric Publishing; 2013.)
Who Is at Risk for Developing SAD?

Approximately 5% to 10% of the population in the United States suffers from SAD. The higher measure was based on the SPAQ, which may have overestimated the incidence. Using the SHQ, approximately 5% of patients in primary care practices have SAD. The disorder is more common in women and tends to affect younger adults. Several pathophysiologic mechanisms have been proposed. Those who develop SAD may have certain genetic factors, neurotransmitter differences, or circadian rhythm abnormalities including improper release of melatonin or problems with phase shifting. A notable risk factor for the development of SAD is implicit in individuals who live at or move to higher latitudes, where there are more extreme differences between daylight and nighttime durations with respect to the seasons (Table 1).

Differential Diagnosis

Highest on the differential diagnosis for SAD are other affective disorders that do not have a seasonal component, which include MDD, bipolar 1 and bipolar 2 disorders, and dysthymia. PCPs need to consider the possibility of underlying medical disease such as thyroid disorders, and should also assess patients for substance abuse.

Treatment

Different treatment options allow PCPs to tailor recommendations to each specific patient. Treatment choices include light therapy, antidepressants, psychotherapy, and complementary and alternative therapies.

Light therapy is the most studied treatment of SAD

Light therapy involves exposure of the patient to artificial light on a daily basis. Lights that are bright (more than 6000 lux) and blue may be more effective than dim to medium lights or red lights. Ultraviolet lights should be avoided because of the increased risk of skin cancer. Patients should use the lights for 30 to 90 minutes daily, with their eyes open, but should avoid staring directly into the light to avoid possible retinal injury. Light therapy used in the morning may be more effective and can avoid problems with insomnia in comparison with light used in the evening. The mechanism of action of light therapy is thought be due to melatonin suppression and shifting of circadian rhythms to address the underlying pathophysiology of phase shifting. Patients usually experience an improvement in symptoms within 3 weeks, and treatment should continue throughout the season until the time when symptoms typically spontaneously resolve. Light therapy can be used prophylactically before the onset of symptoms. Side effects are typically mild, and include vision issues such as blurry vision, photophobia, or headache. Patients and PCPs should be aware that light therapy might induce mania in patients with unrecognized or undertreated bipolar disorder. Multiple commercially produced light sources or boxes are available. Lights for the treatment of SAD provide continuous bright light and are different from daylight.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Risk factors for developing SAD</th>
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<tbody>
<tr>
<td>Demographic</td>
<td>Pathophysiologic</td>
</tr>
<tr>
<td>Women</td>
<td>Genetic factors</td>
</tr>
<tr>
<td>Young adults</td>
<td>Neurotransmitter differences</td>
</tr>
<tr>
<td>Moving to or living at higher latitudes</td>
<td>Circadian rhythm abnormalities</td>
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</tbody>
</table>
simulators that are designed to reproduce the gradual lightening at sunrise. Daylight simulators have not been studied for SAD (Box 1).

**Antidepressants offer another treatment option for SAD**
Placebo-controlled studies indicate that several second-generation antidepressants are effective for the treatment of SAD, including sertraline, fluoxetine, duloxetine, and escitalopram.\(^\text{12}\) Buproprion XL in doses of 150mg to 300mg have been studied and approved for the prevention of MDD symptoms in patients with SAD.\(^\text{13}\) Comparison of light therapy with fluoxetine showed that they were equally beneficial.\(^\text{14}\) Because no drug is clearly superior to another, decisions on treatment should be made based on prior successful treatment, potential drug interactions, or adverse effects.

**Cognitive-behavioral therapy can be used to augment light therapy**
A single study indicated that cognitive-behavioral therapy (CBT) in combination with light therapy improved SAD symptoms; however, CBT alone was less efficacious.\(^\text{15}\) Adding CBT to light therapy may be particularly useful in preventing relapse in subsequent years.

**Several complementary and alternative treatments have been suggested for SAD**
St John’s wort at a total daily dose of 900 mg is effective in treating SAD.\(^\text{16,17}\) Small trials involving fewer than 20 patients each indicate that melatonin improves sleep in patients with subsyndromal SAD and that tryptophan has efficacy similar to that of light therapy.\(^\text{18,19}\) High-dose vitamin D supplementation (100,000 IU one-time dose) also decreased depressive symptoms.\(^\text{20}\) However, the small number of patients involved in these studies makes it difficult to generalize results.

**There is scant evidence comparing available treatments or their use in combination**
Therapies may be used in conjunction with one another, but with the exception of CBT there is little evidence to guide combination therapy. Adding light therapy to St. John’s wort therapy did not result in significant improvements when compared with pharmacotherapy alone.\(^\text{16,17}\)

**The duration of treatment should last at least the typical SAD season**
Most studies have used seasonal treatment of less than 8 weeks to assess response. For patients with mild to moderate episodes seasonal therapy is likely an appropriate choice, and treatment should continue until symptoms usually remit on their own. Because most individuals with SAD are at risk for yearly recurrences, starting treatment a few weeks before the time of typical symptom onset is a reasonable approach. Continuous therapy may be considered for patients with severe symptoms such as suicidal ideation or psychosis.

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**Box 1**
**Pearls for light therapy treatment of SAD**
- Light should be bright (6000 lux or more)
- Blue light may be more effective than others
- Avoid ultraviolet light
- Use for 30 to 90 minutes in the morning
- Face the light with open eyes but do not stare into the light

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**Management**

Patients do not require a prescription to obtain a light box, although PCPs should offer patients information about the kind of box to obtain and how to use it. The medications used to treat SAD are familiar to most PCPs because of their use in nonseasonal affective disorders, and include selective serotonin reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, and tricyclic antidepressants. Referral to psychotherapy is indicated if a patient desires CBT to augment his or her therapy. For patients with severe symptoms, such as psychosis and a plan to harm themselves or others, emergency evaluation by a psychiatrist is needed. Psychiatric consultation could also be considered in patients with less severe symptoms who fail to respond to appropriate treatments (Box 2).

**GRIEF REACTION**

**Symptoms**

Grief, a normal emotional reaction to loss, may be from loss of a person or from significant change in function, community, or social position. It is an entity distinct from depression and may manifest itself physically, emotionally, cognitively, behaviorally, and spiritually. Individuals may experience grief in anticipation of losing a loved one or in anticipation of one’s own death. This concept is sometimes referred to as anticipatory grief or mourning. Bereavement is grief experienced after the death of a loved one. Complex grief is also referred to in the literature as complicated grief and prolonged grief disorder, and in the DSM-5 as persistent complex bereavement disorder. It is defined as grief with clinically significant symptoms that has persisted longer than 12 months and causes impairment in function.

**Healthy Grieving Is a Normal Process**

Grief may produce feelings of shock, denial, anger, disbelief, yearning, anxiety, sadness, or helplessness. It is normal for grief to cause problems with sleep and appetite, significant fatigue, and social withdrawal. It is also normal for grief to disrupt daily life and to make it difficult to manage for weeks to months after a loss. Grief often occurs in waves. Triggers may be difficult to establish, but may include holidays and anniversaries. As time passes the waves become less intense. There are defined phases of grief, but they may occur in a different order in different individuals.

Bereavement has long been described to occur in stages, as first formally described by Bowlby and Parks. These stages have been described as shock-numbness, yearning-searching, disorganization-despair, and reorganization. Jacobs described them as disbelief, yearning, anger, depression, and acceptance.

With anticipatory grief, patients may reflect on their life, friends, and family, and begin to imagine a future without their loved one. Kubler-Ross identified 5 stages: denial-dissociation-isolation, anger, bargaining, depression, and acceptance.

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**Box 2**

**Pearls for effective treatment of SAD**

- Light therapy with bright blue light used 30 to 90 minutes in the morning
- Antidepressants including sertraline, fluoxetine, duloxetine, escitalopram, and bupropion
- Complementary therapies include St. John’s wort, vitamin D, tryptophan, and melatonin
- Cognitive-behavioral therapy can be used adjunctively with medication or light therapy
People vary in how long they experience grief. Hypothesized theories have often suggested the normal grieving process lasts about 6 months, but recent empirical evidence suggests that most symptoms of grief are only just peaking at or near 6 months. In one study, yearning peaked near 4 months, anger near 5 months, and depression near 6 months after loss of a close family member.

**Differential Diagnosis**

Approximately 7% of grieving people experience complex grief. The DSM-5 defines Persistent Complex Bereavement Disorder if 1 or more of the following symptoms significantly persists on more days than not beyond 12 months: yearning or longing for the deceased, intense sorrow or emotional pain, and preoccupation with the deceased or circumstances of death. In addition, at least 6 of the following symptoms must persist on more days than not: difficulty accepting the death, disbelief or numbness, difficulty with positive reminiscing about the deceased, bitterness or anger, self-blame, excessive avoidance of reminders of the loss, a desire to die to be with the deceased, difficulty trusting others, feeling alone or detached from others, feeling that life is meaningless or that one cannot function without the deceased, diminished self-identity, and reluctance to pursue interests or plan for the future. The distress must cause clinically significant distress or impair function, and be out of proportion to cultural norms.

**Several Risk Factors Exist for Complex Grief**

Women are more at risk than men of complex grief. Individuals with preexisting mental health and substance abuse disorders are at higher risk. A history of trauma (particularly childhood), recent or multiple prior losses, insecure attachment, little social support, or a caretaking role also increases the risk of complex grief. Complex grief is also more likely to occur from a sudden, violent, unexpected death, or a death of which the circumstances are unclear. Not knowing, acknowledging, or preparing for death may impede normal anticipatory grief.

**Diagnostic Tests**

Getting stuck in one phase of the grieving process may signal complex grief. It is important for primary care physicians to ask about symptoms of complex grief, particularly in patients at higher risk. The Brief Grief Questionnaire is a 5-question screening tool that may be practical for primary care physicians to use in the outpatient setting. It asks participants to rate symptoms as not at all, somewhat, and a lot. The questionnaire asks about how much the patient is having trouble accepting the death of a loved one, how much grief still interferes with the patient’s life, how much he or she is having images or thoughts of their loved one when he or she died or other thoughts about the death that are bothersome, avoidance of activities that used to be done with the person who died or avoiding looking at pictures or talking about him or her, and how much the patient is feeling cut off from others.

**Distinguishing Between Grief and Depression**

Many symptoms between grief and depression overlap, and can occur together. A change between the DSM-IV and DSM-5 is that the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV) criteria for a major depressive episode that stated “the symptoms are not better accounted for by bereavement” was removed. In the DSM-IV, to qualify for depression symptoms had to be present at least 2 months, and either lead to marked loss of function or include symptoms of suicidality, morbid preoccupation with worthlessness, psychotic symptoms, or psychomotor retardation.
Instead a note is made that clinical judgment must be used to distinguish between a major depressive episode and the normal response to loss. These changes were made in response to evidence suggesting that response to treatment and short-term prognosis is similar for bereavement-related and non-bereavement-related depression.25

As suggested in the DSM-IV bereavement exemption, a key element distinguishing grief from depression is a lack of self-worth. Depressed patients are also more likely to have feelings of pervasive hopelessness, helplessness, guilt, lack of pleasure, and suicidal ideation.22 It is important for primary care physicians to assess for and treat coexisting depression.21

**Treatment**

Pharmacologic treatment is not indicated for uncomplicated grief, and many patients do not seek professional assistance.22

Physicians should offer empathy and encourage expression of emotions. It may be beneficial to help patients identify and seek support within their own network of family, friends, and community. Physicians should actively listen.22 To assist patients in talking about the grief they are experiencing it can be helpful to ask patients open-ended questions, such as “how you are managing?” and “what is going through your mind?”21

Psychotherapy and consideration of antidepressants is indicated for the treatment of complex grief. Patients are at higher risk for suicidality, and should be screened accordingly. Complex grief is associated with several negative outcomes.24 Patients with complex grief have higher rates of cardiovascular disease and cancer.24 Identification and treatment of complex grief may improve the quality of life, functional status, and sleep problems.24

**Management**

As most people cope with grief without seeking medical attention, PCPs play a supportive role when their patients are grieving. Interdisciplinary teams including nurses, social workers and other types of primary care providers can assist in supporting patients their families with grief. Nurses, social workers, psychologists, and chaplains may all be of assistance.21 The Medicare hospice benefit includes bereavement services for surviving family members.

PCPs should seek referral to specialists when initial therapy for grief, complex grief, concurrent depression, or substance abuse extends beyond the scope or comfort of their practice (Box 3).

**ADJUSTMENT DISORDER**

**Symptoms**

Adjustment disorders are amplified stress responses that impair daily function and occur within 3 months of a distressing event or events. The event(s) may have been traumatic or nontraumatic, and symptoms must resolve within 6 months after the event or cessation of the stressor(s). Because of the short duration of this diagnosis, PCPs diagnose and treat most cases of adjustment disorder. Examples include breakup of a relationship, marital or business distress, natural disasters, or life changes such as school, an illness, marriage, divorce, retirement, or having a new baby or an ill parent.26 Triggering stressors may be a single event, ongoing events, collective experiences, or continuous events. Adjustment disorder first appeared in DSM-III in 1980, and the 2013 DSM-5 has evolved to take into account cultural factors and external context. Adjustment disorder is a common psychiatric diagnosis, but there has been
limited research into its causes, treatments, and outcomes. The limited duration of the disorder and symptom overlap with subclinical depression may contribute to the lack of research on adjustment disorder. The spectrum of responses to a stressful life event ranges from normal adaptive reactions to adjustment disorder, and if persistent beyond 6 months a different diagnosis, such as MDD or posttraumatic stress disorder (PTSD), should be considered.

**Risk Factors for Adjustment Disorder Depend on the Patient or the Stressor**

Acute stress from a loss, event, or new medical diagnosis is the most common trigger. Limited coping skills may also result in a higher degree of distress. Patients with cancer or severe burns have high rates of adjustment disorder. 27,28 High-stress situations such as war can trigger adjustment disorder. The best studies on risk factors come from the military. Military recruits diagnosed with adjustment disorder had personality characteristics showing less skill in self-transcendence (the ability to see beyond oneself and be a part of an interconnected larger universe), self-directedness, and cooperativeness when compared with controls. Those who had adjustment disorder with depressed mood also had higher scores on harm avoidance. 29 During the Iraq War, adjustment disorder was the most common psychiatric reason for military personnel to be extracted from the theater of operations. Similar findings from prior studies showed that adjustment disorder was the most common psychiatric problem in the armed forces. 30,31 Other risks include alexithymia, the subclinical inability to identify and describe one’s own emotions. Alexithymia can lead to less empathy, and this can predispose one to develop adjustment disorder. 32 Natural disasters may also trigger adjustment disorder. 33

**Diagnostic Tests**

There is no validated screening tool solely for adjustment disorder in the general population. Clinical studies on adjustment disorder often use semistructured interview tools such as the Structured Clinical Interview for DSM disorders (SCID), which
uses open-ended questions, takes 30 to 120 minutes to administer, and has a validated guide on interpretation. The SCID is rarely used in primary care, and the questions on adjustment disorder are at the end of the test, which does not lend itself to use in isolation.34

In patients with cancer, the One Question interview, Distress Thermometer, and Hospital Anxiety and Depression Score have similar sensitivity (0.8–0.92) and specificity (0.57–0.62) for diagnosing adjustment disorder and depression.35,36

Studies have not shown distinct identifiable risk factors or predictors that are able to separate adjustment disorder from a depressive episode, so the timing and duration of symptoms discriminate it from acute stress reaction and major depression.37

Fig. 2 shows an algorithmic approach to the diagnosis of adjustment disorder. Adjustment disorder can have subtypes, including with depressed mood, with anxiety, with mixed anxiety and depressed mood, with disturbance of conduct, with mixed disturbance of emotions and conduct, and unspecified.

**Differential Diagnosis**

Differential diagnoses may include a normal stress response, acute stress reaction that develops within 3 days of the stressor and resolves by 1 month, subclinical depression that does not fit the diagnostic criteria of major depression, persistent complex bereavement disorder, personality disorders, anxiety, and PTSD whereby effects persist at least 1 month after an event. Hypothyroidism should also be considered.

**Many Other Disorders Can Co-Occur with Adjustment Disorder**

Substance use disorder was the most common reported comorbid condition during hospitalizations for adjustment disorder. In one study, 76% of patients with...
adjustment disorder had substance use disorder as either a primary or secondary diagnosis at the time of discharge.\textsuperscript{38} Personality disorders, anxiety, and PTSD were also noted.

Incidence of suicidality is higher in major depression, but may occur in adjustment disorder, particularly if coupled with substance abuse. Therefore the assessment of suicide risk and comorbid diagnoses is important. The suicidality dissipates more rapidly in adjustment disorder than in major depression.\textsuperscript{38}

**Treatment**

Primary care practitioners can and do manage most adjustment disorders. Psychotherapy is the best treatment choice at present. Brief problem-solving therapy that combines interpersonal therapy with solution-focused goals has helped patients with adjustment disorder. There are no reliable pharmacotherapy studies to suggest that treatment with medication is better than psychotherapy. However, because studies show similar regional brain changes in adjustment disorder and MDD, medications used in depression might be helpful in severe adjustment disorder.\textsuperscript{39}

A 5-year follow-up study showed that 71\% of patients diagnosed with adjustment disorder had no active psychiatric diagnosis, 13\% had major depression with or without alcoholism, and 8\% had antisocial personality disorder.\textsuperscript{40}

**Management**

Evidence of moderate quality shows that problem-solving therapy significantly enhances partial return to work at 1-year follow-up compared with non–guideline-based care, but did not significantly enhance the time to full return to work at 1-year follow-up.\textsuperscript{41} Treatment with a medication slowed the return to work. A randomized controlled trial on psychotherapy for those on sick leave for adjustment disorder showed that “activating intervention” (consisting of acquisition of coping skills and helping patients to regain control) led to shorter periods of sick leave and lower recurrence rates in comparison with a control group.\textsuperscript{42} There was moderate-quality evidence that CBT did not significantly reduce time until partial return to work.

PCPs should consider referral of patients suffering from adjustment disorder to a counselor skilled in brief interventional problem-solving therapy, as it is currently the best treatment option. Referral to a psychiatrist should be considered when the severity is extremely severe or if psychosis is present (which would mean that the diagnosis of adjustment disorder is incorrect) and refer to substance abuse counseling when substance use is present (Box 4).

**Box 4**

### Pearls for adjustment disorder

| Amplified stress response that impairs daily function |
| Starts within 3 months of onset of stressor and resolves within 6 months of end of stressor |
| PCP often makes the diagnosis |
| Consider comorbid conditions (ie, substance abuse), but most have no other diagnoses |
| Brief problem-solving psychotherapy is the best treatment |
| Medication treatment may slow the return to work |
| No specific validated test for adjustment disorder |
| Refer for suicidality, severe symptoms, or lack of response to therapy |
SUMMARY

SAD, grief reaction, and adjustment disorder are common conditions that PCPs can successfully diagnose and manage in the ambulatory setting. For SAD, light therapy is the best studied intervention, although antidepressants can also be used. Supportive care is indicated for most cases of grief reaction because it is considered a normal process. Referral for counseling or pharmacotherapy may be appropriate for patients with complex grief. Adjustment disorder is best treated with problem-solving psychotherapy, and symptoms should resolve within 6 months. If symptoms persist, another diagnosis and treatment plan should be considered.

REFERENCES


