



## THREE

# How Seasonal Are You?

“It is certainly very cold,” said Peggotty.

“Everybody must feel it so.”

“I feel it more than other people,” said Mrs. Gummidge.

—CHARLES DICKENS, *David Copperfield*

- ◆ How severe are your seasonal symptoms?
- ◆ When should you seek medical advice and help?

In this chapter, I will show you how to determine how seasonal you are by means of the Seasonal Pattern Assessment Questionnaire (SPAQ), which was developed for research purposes but is very easy to administer and interpret once you have the key.

**M**ost people are seasonal, though some are more so than others. In fact, my colleagues and I at the NIMH were astonished to find that over 90% of all those who responded to a survey we conducted in Maryland, about 39°N, reported that they felt some difference in mood, energy, or behavior with the change of seasons. Using the SPAQ, researchers have established that seasonality is actually a genetically transmitted trait and have estimated the prevalence of SAD and the winter blues in many parts of the world. (See Chapter 4.)

To understand the pattern and extent of your seasonality, complete the SPAQ, shown in Figure 1. To obtain a stable and accurate assessment, you will have to think back over a period of time—say, 3 years—when you have lived continuously in one climatic region, ideally the most recent 3 years spent in one area. (If you don't want to mark up your book, feel free to photocopy the form or download it from the book's page at [www.guilford.com](http://www.guilford.com).)

## How to Interpret Your Scores on the SPAQ

### Question 1. What is your seasonal pattern?

Based on the analysis of many SPAQ responses, we came up with definitions for different patterns of seasonality. How you answer question 1 on the SPAQ will give you an idea of which one applies to you:

- *If you feel worst in December, January, or February, you have a winter seasonal pattern.* Almost half of all people in the northern United States report that they feel worst during the winter and can be said to have a winter pattern of seasonality. This pattern is more marked among people who live at higher latitudes. For example, a higher percentage of people dislike winter in New Hampshire (42°N) than in Sarasota, Florida (27°N). On the other hand, the closer people are to the equator, the more they dislike summer. In south Florida, for example, more people report disliking summer than winter, presumably because of the heat and humidity.

As described in Chapter 2, if you're a winter type, you probably eat more and gain weight during the winter and socialize less. In summer you eat lighter foods and relish social occasions.

- *If you feel worst in July or August, you have a summer seasonal pattern.* Interestingly, in the United States and Europe winter types are far more common, while in Japan and China, more people dislike the summer. Whether these differences are genetic or related to the greater availability of air-conditioning in warm regions in the West is unclear. If you're a summer type, you are likely to socialize least during the summer, but interestingly—unlike winter types—you may eat *less*, lose weight, and sleep *less* then too.

The purpose of this form is to find out how your mood and behavior change over time. Please fill in all the relevant circles. Note: We are interested in *your* experience; *not that of others* you may have observed.

1. In the following questions, fill in circles for all applicable months. This may be a single month ●, a cluster of months, ●●●, or any other grouping.

At what time of year do you . . .

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
A. Feel best	<input type="checkbox"/>												
B. Tend to gain most weight	<input type="checkbox"/>												
C. Socialize most	<input type="checkbox"/>												
D. Sleep least	<input type="checkbox"/>												
E. Eat most	<input type="checkbox"/>												
F. Lose most weight	<input type="checkbox"/>	OR <input type="checkbox"/>											
G. Socialize least	<input type="checkbox"/>												
H. Feel worst	<input type="checkbox"/>												
I. Eat least	<input type="checkbox"/>												
J. Sleep most	<input type="checkbox"/>												

) No particular months stand out as extreme on a regular basis

2. To what degree do the following change *with the seasons*?

(One circle only for each question.)

	0	1	2	3	4
	No change	Slight change	Moderate change	Marked change	Extremely marked change
A. Sleep length	<input type="checkbox"/>				
B. Social activity	<input type="checkbox"/>				
C. Mood (overall feeling of well-being)	<input type="checkbox"/>				
D. Weight	<input type="checkbox"/>				
E. Appetite	<input type="checkbox"/>				
F. Energy level	<input type="checkbox"/>				

FIGURE 1. Questionnaire for evaluating your degree of seasonality.

Modified from the Seasonal Pattern Assessment Questionnaire (SPAQ) of N. E. Rosenthal, G. Bradt, and T. Wehr (public domain).

*Note to scholars and researchers:* Over the years, many people have written to me requesting permission to use this questionnaire. The SPAQ was developed under the aegis of the NIMH, a government institution, and is therefore in the public domain and can be used freely by scholars and researchers. Notifying its authors that you plan to use this instrument in a research project is merely a courtesy.

3. If you experience changes with the seasons, do you feel that these are a problem for you?  No  
 Yes

If yes, is this problem

Mild	Moderate	Marked	Severe	Disabling
<input type="radio"/>				

4. By how much does your weight fluctuate during the course of the year?
- 0–3 lbs.
  - 4–7 lbs.
  - 8–11 lbs.
  - 12–15 lbs.
  - 16–20 lbs.
  - Over 20 lbs.

5. Approximately how many hours of each 24-hour day do you sleep during each season? (include naps)

	Hours slept per day	Over 18 hours
<input type="radio"/> Winter (Dec 21–Mar 20)	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10 <input type="radio"/> 11 <input type="radio"/> 12 <input type="radio"/> 13 <input type="radio"/> 14 <input type="radio"/> 15 <input type="radio"/> 16 <input type="radio"/> 17 <input type="radio"/> 18	<input type="radio"/>
<input type="radio"/> Spring (Mar 21–June 20)	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10 <input type="radio"/> 11 <input type="radio"/> 12 <input type="radio"/> 13 <input type="radio"/> 14 <input type="radio"/> 15 <input type="radio"/> 16 <input type="radio"/> 17 <input type="radio"/> 18	<input type="radio"/>
<input type="radio"/> Summer (June 21–Sept 20)	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10 <input type="radio"/> 11 <input type="radio"/> 12 <input type="radio"/> 13 <input type="radio"/> 14 <input type="radio"/> 15 <input type="radio"/> 16 <input type="radio"/> 17 <input type="radio"/> 18	<input type="radio"/>
<input type="radio"/> Fall (Sept 21–Dec 20)	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10 <input type="radio"/> 11 <input type="radio"/> 12 <input type="radio"/> 13 <input type="radio"/> 14 <input type="radio"/> 15 <input type="radio"/> 16 <input type="radio"/> 17 <input type="radio"/> 18	<input type="radio"/>

6. Do you notice change in food preference during the different seasons?  No  
 Yes

Please specify:

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FIGURE I (cont.)

- *If you feel worst during December, January, or February and July or August, you have a summer–winter pattern.* Summer–winter types may enjoy only the spring and fall.
- *If there is no time of year when you generally feel best or worst, you have a nonseasonal pattern.* Some people report very few seasonal changes at all. These people will generally mark most of the items in question 2 as not changing with the seasons.

There are other, less common seasonal patterns. For example, some people feel worst in the spring, others in spring and fall. Note that the patterns discussed here refer to those who have been living in the northern hemisphere; the opposite months would apply to those in the southern hemisphere.

The pattern of sleeping and eating more and gaining weight in the winter is often seen even in those who do not have SAD. What distinguishes people with SAD and the winter blues from the general population is the overall seasonality score, which is greater in the first two groups than in the population at large.

## **Question 2. How seasonal are you?**

The severity of your seasonality is determined by examining the degree to which you experience seasonal changes in sleep length, social activity, mood (overall feeling of well-being), weight, appetite, and energy level (see question 2 of the SPAQ).

To derive your overall seasonality score, add up your scores for all six items, for a possible range of 0 to 24. This overall seasonality score would be expected to vary depending on where you live. For example, the same person who has a very high seasonality score during years spent in Alaska is likely to find the score greatly reduced after living in Hawaii for several years. Likewise, successful treatment will probably reduce your overall seasonality score.

In general, the six functions measured vary seasonally most markedly in people with SAD, but also in those less severely affected and in the general population. The extent to which they vary is reflected in the overall seasonality score. Most people who do not experience seasonal problems have overall seasonality scores of 7 points or less. Most people with full-blown SAD have seasonality scores of 11 or more, while

*According to a population study conducted by Siegfried Kasper and me at the NIMH, women in their late 30s tend to have the highest seasonality scores, which tend to decrease as they get older. There is less evidence that seasonality scores change with age in men.*

people with the subsyndromal condition will likely have scores of 8–10. Remember, these are just rough guidelines, not hard-and-fast rules. Use these guidelines together with the other factors outlined in Table 2 to help you determine whether you may be suffering from SAD or less severe winter blues.

**Question 3. Are seasonal changes a problem for you, and, if so, to what degree?**

If seasonal changes are a problem for you, you may regard them as mild, moderate, marked, severe, or disabling (see question 3 of the SPAQ). Your answer to this question should be related to your overall seasonality score. The higher your score, the more likely it is that the changing seasons are a problem for you. Almost all people accepted into the NIMH programs as either SAD or subsyndromal SAD patients rated their seasonal changes as being at least a mild problem. Approximately 25% of the general population surveyed in the northern United States report the changing seasons are a problem for them. Most of these complain of winter rather than summer difficulties and could benefit by increasing their environmental light exposure during the winter months.

**Questions 4–6. Does your weight, sleep, or preference in foods change with the seasons?**

These questions are not taken into account for scoring purposes but are of interest to clinicians and researchers who treat SAD and may be of interest to you as well. We have found that people with SAD report sleeping an average of 2.5 hours more in winter than in summer. Corresponding figures for people with the winter blues and the general population in the northeastern United States are 1.7 hours and 0.7 hours, respectively.

In interpreting how you filled out the SPAQ, remember that the

**TABLE 2. Diagnosing SAD and the Winter Blues on the Basis of the SPAQ**

	SAD	Winter blues
<i>Question 1</i>		
Seasonal pattern: During which months do you feel worst?	Winter type (feel worst in months between December and February)	Winter type (feel worst in months between December and February)
<i>Question 2</i>		
Overall seasonality score: To what degree do the following change with the seasons: sleep length, social activity, mood, weight, appetite, and energy level? (Obtain score as indicated above.)	11 or more	8–10
<i>Question 3</i>		
If you experience changes with the seasons, do you feel that these are a problem for you? If yes, is the problem mild, moderate, marked, severe, or disabling?	Yes, moderate or greater	If score on question 2 is 8 or 9: Yes; mild or greater  If score on question 2 is 10: No or Yes; mild or greater

questionnaire was developed as an instrument for population surveys as well as to screen patients in a clinical setting, but not as a diagnostic test. Therefore you should not depend on the test results alone as a guide to diagnosis. If, after completing this questionnaire, you think you may have a significant problem with the changing seasons, I encourage you to follow up by scheduling a detailed clinical evaluation. Guidelines on the following pages will help you decide when it may be appropriate to consult a doctor. First, however, use Tables 2 and 3 to evaluate whether you may have SAD or a milder version of seasonality.

**TABLE 3. Clinical Guide to Distinguishing SAD from the Winter Blues**

	SAD	Winter blues
Winter changes last at least 4 weeks	Yes	Yes
Regular winter problems (at least 2 consecutive years)	Yes	Yes
Interferes with functioning (work or interpersonal)	To a significant degree (productivity decreases markedly; marked loss of interest or pleasure; withdrawal from friends and family; conspicuous changes in energy, sleeping, or weight)	To a mild degree (less creative; slightly less productive; less enthusiastic about life; less enthusiastic about socializing; slight decrease in energy or bothersome weight gain)
Have seen doctor or therapist about winter problem (or others have suggested it)	Yes	No
Have felt really down or depressed in winter for at least 2 weeks	Yes	No

### *Using the SPAQ to Estimate Your Problem with Seasonality*

In providing diagnostic guidelines based on a questionnaire, we decided on cutoff scores that include most people who have the condition in question and exclude most people who do not have the condition. The guidelines outlined in Table 2 tend to be a little on the strict side, especially for diagnosing the less severe winter blues. In other words, studies have shown that some people who do not meet SPAQ criteria for these conditions but may still have SAD or milder seasonality on interview. Those people with SAD will generally, at the very

least, meet SPAQ criteria for the milder symptoms; however, they may not qualify for any diagnosis according to the SPAQ criteria. It is not unusual for self-ratings and clinician ratings to differ. If your diagnosis, based on your SPAQ responses, differs from your perception of yourself as someone with SAD or less severe seasonality, remember that the SPAQ is only a guide. Table 3, which shows how clinicians go about making the diagnoses of SAD and the winter blues, may provide you with further insight into whether you may be suffering from one of these conditions.

### *When to Seek Medical Advice*

With awareness of seasonality constantly growing, more and more people will probably recognize that they have comparatively minor, subtle seasonal difficulties and will attempt to modify their environmental lighting to cope with them. A self-help approach is reasonable as long as symptoms are mild. Those who score 12 or more on the SPAQ or consider their seasonal problem to be at least of moderate severity, however, may well benefit from a professional's care.

You should definitely seek medical help if:

1. *Your functioning is impaired to a significant degree.* For example, if you develop problems at work that are marked enough for others to notice, such as:

- Difficulty getting to work on time on a regular basis
- Marked reduction in your ability to think and concentrate so that you make frequent errors or take much longer than normal to finish a task
- Difficulty completing tasks that you could previously manage
- An irritable attitude toward supervisors, clients, or colleagues

Be sure to catch the problem before your supervisors or clients do and turn it around promptly by getting appropriate help.

Problems may also occur in your personal life. For example, you may feel that you want to be left alone and withdraw, causing difficulties with friends or family. Your spouse or partner may find you distant and unavailable. It may be worth asking significant people in your life

whether your winter difficulties interfere with their ability to feel close to you. If they do, it would pay to get help for the problem rather than risk harming important relationships.

Suspect that your ability to function is slipping if you begin to fall behind with bills and other necessary chores. SAD can cause chaos in the administrative areas of your life, which further amplifies feelings of depression and hopelessness. It often takes the whole spring to dig yourself out from under the winter mess.

2. *You experience significant feelings of depression.* This includes the following:

- Regularly feeling sad or having crying spells
- Feeling that life is not worthwhile or wishing you would not wake up in the morning
- Thinking negative thoughts about yourself—that you are a bad person, incompetent, unreliable, an impostor—which you would regard as completely off at other times of the year, and others would agree.
- Feeling guilty much of the time
- Feeling pessimistic about the future

3. *Your physical functions are markedly disturbed during the winter.* For example:

- You require several more hours of sleep per day or have great difficulty waking up in the morning.
- You would like to lie around for much of the day.
- You feel you have no control over your eating and weight.

All of these symptoms are indications that you should have the problem checked out by an appropriate professional and treated, if necessary. If your symptoms of depression are severe, *especially if you have suicidal thoughts*, you should seek out a qualified professional as a matter of urgency. On the other hand, if your symptoms are mild, you may choose to use light therapy and some of the other remedies outlined in Part II of this book.

Besides seasonal changes, some people react strongly to a variety of climatic conditions. Most people enjoy sunny days and dislike gray, cloudy days; most prefer dry to humid weather. The difference between

**You need medical help if . . .**

- Your functioning is impaired significantly
- You have significant feelings of depression
- You notice physical impairment during the winter, such as changes in sleep, eating habits, and energy level
- You feel like life is not worth living

seasonal types is primarily in the degree to which they dislike certain types of weather or climate. Winter types strongly prefer long, sunny days and abhor short, dark ones. Summer types, on the other hand, strongly dislike hot, bright days and greatly prefer cool weather.

Obviously, some external factors that can produce changes in mood or physical symptoms on a seasonal basis do not imply SAD. My NIMH colleague Teodor Postolache has pointed out that some people feel lethargic and depressed during the spring when the pollen count is high as a result of their allergies. In all these instances, the seasonality of a problem provides potentially valuable clues that some seasonal factors may be responsible for causing the distress or difficulty. This could even include a psychological or work-related factor. For example, an accountant may be most stressed at tax season and a landscaper during the summer. In all of these cases, the changing seasons are like some giant shape sorter, sorting out different types of people according to their specific biological or occupational vulnerabilities.

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