

You might think, with all the studies trying to document the existence of a "widespread" biological disorder that so many women are "suffering" from, that researchers would have some idea of what causes it. Yet in spite of more than a decade of biomedical research, no biological marker has been found that distinguishes women who have severe premenstrual symptoms from those who do not. There is no support for theories suggesting that premenstrual symptoms are caused by abnormally high (or low) hormones, low magnesium, high sodium, abnormal thyroids, a deficiency of hormonelike substances called prostaglandins, steroid fluctuations, or the like.

Moreover, thus far, no drug or vitamin has been found to be effective. There is no evidence that vitamins help, and megadoses of B-6 supplements, which are commonly recommended, carry significant risks, such as causing nerve damage, for some individuals. In most of the double-blind treatment studies, in which neither the women nor her physician knows whether she is being given an active drug or a placebo, the placebo effect is as strong as the drug. Upward of 60 to 70 percent of the women who are given a placebo report improvement in their symptoms.

For many years, the treatment of choice for PMS was progesterone suppositories, in spite of a lack of clinical evidence demonstrating their effectiveness. Recently, however, Ellen Freeman and her colleagues, who conducted the largest and best-controlled study to date of the effects of progesterone, found that "progesterone suppositories have no clinically significant therapeutic effect greater than that of placebo for premenstrual symptoms." Progesterone did not improve individual symptoms or severity of symptoms in any way. If anything, symptoms remained *higher* in the women given progesterone than in those on the placebo!

So what is going on here? Up to the mid-1970s, researchers kept finding what they called the "classic" menstrual mood pattern: greater happiness and self-esteem during ovulation (mid-cycle), followed by depression, irritability and low self-esteem premenstrually. But as Mary Brown Parlee noticed back in 1973, the professional journals were not publishing negative results—that is, studies that were finding *no* premenstrual differences or mood variations over the menstrual cycle. In the last fifteen years, more of these disconfirming studies have been published, and many errors have been discovered in the earlier research. The new evidence finds that most of the so-called emotional and behavioral symptoms of Premenstrual Syndrome may not have much to do with menstruation, and in any case are not limited to women.

\* \* \*

### The Power of Expectations and Circumstances

The belief in PMS has, itself, a powerful influence on a woman's likelihood of noticing some symptoms and ignoring others at different times of the month. This is why even the day-by-day method of tracking symptoms has a problem: For some women, the strong belief that their moods change predictably over the menstrual cycle affects their actual experience of symptoms.

In one fascinating study, for example, two groups of women and a comparable group of men filled out daily inventories of their moods and physical symptoms. Half of the women were aware that menstrual-cycle changes were a focus of the study, and half were unaware. During the premenstrual phase of their cycles, the "aware" women reported a significantly higher level of negative moods and uncomfortable physical changes (such as headaches and muscle tension), and fewer positive feelings, than did either the "unaware" women or the men. The belief in PMS and the expectation of negative symptoms, apparently, influence a woman's likelihood of noticing some symptoms and ignoring others at different times. And it's a big likelihood. In this study, the "aware" women, premenstrually, reported a 76 percent increase in negative emotions (anxiety, depression, anger) and a whopping 193 percent increase in physical complaints. The "unaware" women did not.

Being aware of bodily changes or expecting them to occur can make us more sensitive to them; conversely, distracting influences can override them. This fact may explain why moods have less to do with a woman's time of the month than with her time of the week. Women's positive moods (and men's) peak on the weekends! If you want to predict when a woman will feel happiest, according to several studies, you do better to know when it's a Saturday or Sunday than when she is ovulating.

As this research suggests, the mood effects of the menstrual cycle often depend on whether a woman is paying more attention to her bodily changes or to her immediate situation. A friend of mine put it this way:

If, one day, I'm aware of feeling too easily annoyed by telephone interruptions, or if my threshold for bureaucratic stupidity plummets, I may suddenly realize that I'm "pre-menstrual." This mood can be easily overturned, though, if I do something I enjoy, like taking a hike or going to the movies. It just depends on whether I want to indulge my moods or break them.