Premenstrual Changes

There is little doubt among scientists that some women experience monthly symptoms somehow linked to their reproductive cycle. But there is widespread disagreement about the exact nature of premenstrual disorder and about how to treat it.

By WRAY HERBERT

Linda Levy endured severe premenstrual symptoms for 27 years before she heard of premenstrual syndrome and sought treatment. Nearly every month she would become bloated with water, and her breasts would become so painfully tender that she was unable to dress; her sexual drive would increase, and she would find herself atypically assertive with people; she would lose all tolerance for minor irritation. The symptoms would begin with ovulation and build to a crescendo, usually ending with a three-day crying jag just prior to menstruation. During one such breakdown, her frustration with her youngest son was so intolerable that she was about to relinquish custody. In her own words, she was "irrational, out of control."

Levy never mentioned her symptoms to her gynecologist, she says, because she had been taught to believe that women of reproductive age were supposed to endure such changes every month. When her friends told her she was neurotic, she believed them and sought psychiatric help. It was her psychotherapist who finally told her about the disorder called premenstrual syndrome, or PMS.

PMS was first reported in the medical literature over 50 years ago, but with few exceptions scientists have paid scant attention to the disorder since. If PMS has gotten a lot of public attention recently, it is because lawyers—not scientists—have taken an interest in PMS as a form of insanity. In two celebrated cases in England, the state considered evidence of PMS in mitigating the charges against two women initially accused of murder. Both women had long histories of periodic violent behavior. In the United States, the legal verdict on PMS is less plain. In a Buffalo, N.Y., case decided last month, a dentist was acquitted of rape and sodomy after claiming that his girlfriend had filed charges during a period of premenstrual irrationality; but it remains unclear to what extent the judge's decision was influenced by the PMS argument. A few days later, a Brooklyn woman charged with child abuse dropped her PMS defense and pleaded guilty at the last minute; the state had developed a substantial case aimed at debunking the entire concept of a premenstrual behavioral disorder.

In a sense, the recent inconclusive court cases reflect the current state of medical and psychiatric opinion about PMS. Some psychiatrists do not believe that such a disorder exists at all, and indeed there is no mention of PMS in the standard psychiatric diagnostic manual. The handful of scientists who have spent any time studying PMS patients say that the disorder is authentic and prevalent, but even they differ on whether such premenstrual tension could in itself cause the kind of craziness that leads to murder or child abuse. Brooklyn district attorney Elizabeth Holtzman has said that in preparing her prosecution she did an extensive review of the medical literature and could find no evidence of premenstrual insanity.

But people like Levy who suffer from PMS say that, whatever the literature shows, Holtzman is wrong. Levy says she was quite capable, before starting treatment, of dangerously irrational behavior. She now works on a PMS research project at the University of Illinois Medical Center, and she says that many of the women who show up for help do so because they are guilty of such crimes as child abuse; others seek help because they have attempted suicide. According to Gail Keith, a nurse practitioner who is directing the research project, the details of each differ, but the overriding symptomatic change of concern to PMS victims is a sense of being out of control.

Among scientists who acknowledge PMS there is vast disagreement about how to define it, explain it and treat it. The only clear progress, most say, has been to figure out certain things that PMS is *not*. One thing that PMS is not, according to Keith, is an exaggerated form of dysmenorrhea, or menstrual cramping. Even though some PMS victims may experience mild cramps during menses, she says, the menstrual period offers relief from a debilitating constellation of physical, mental and emotional symptoms. "These women," Keith says, "look forward to bleeding." In her research, Keith defines PMS as a cyclical disorder beginning seven to 14 days prior to menses with an absence of symptoms for at least seven days after menses ends.

In contrast, National Institute of Mental Health psychiatrist David Rubinow prefers a more flexible definition. He says that even the *pre* is not entirely accurate; although the symptoms usually occur before menstruation begins, he says, it is not uncommon for them to begin after menses has begun. He talks about the predictable recurrence of symptoms "in some relationship to the onset of menses." Similarly Katharina Dalton, a British physician who others call the "guru" of PMS, has started referring to "perimenstrual syndrome," to suggest a disorder that is clearly, but loosely, tied to the menstrual cycle.

There is even less consensus when it comes to theory. It was once thought, for example, that PMS represented a distinct subclass of depression, which, according to statistics, is twice as prevalent among women as among men. But according to University of Michigan psychiatrist Roger Haskett, his own research on PMS sufferers revealed none of the signs — such as abnormal cortisol secretion by the adrenal gland — that are considered fairly reliable indicators of serious depression.

Others suspect that PMS may have psychodynamic origins. Specifically, says psychologist Stephen W. Hurt of the New York Hospital-Cornell Medical Center in White Plains, N.Y., PMS seems to bear some relationship to unresolved sexual conflicts, an idea he traces back to the work of Chicago psychoanalyst Ruth Benedek in the 1940s. Benedek studied the ebb and flow of women's fantasies with different stages of the menstrual cycle, and she found that following menses women's sexual fantasies were associated with reproduction and nurturing a family; these procreational feelings peaked at the time of ovulation, when the fantasies became more recreational; then, about a week before menstruation, women started experiencing conflicts about not having reproduced; they became remorseful and temperamental about issues of sexuality. These feelings intensified until the menstrual flow brought psychological relief — a finding, Hurt notes, that is very much in keeping with the clinical evidence on PMS.

To study the possible association between PMS and psychosexual difficulties, Hurt says, he and his colleagues decided to study women who were most likely to have a reason for extreme sexual conflict — women who had had abnormal sexual histories. When they compared psychiatric patients with PMS to those without, they found that 57 percent of the PMS sufferers had "grossly abnormal" sexual histories, including unwanted homosexual experiences, molestation, incest or rape (all of the rape victims were PMS victims); only one (or 5 percent) of the subjects without PMS had such a history.

Most PMS researchers, while conceding that there may be psychological disorders associated with the menstrual cycle, argue that true PMS is almost certainly a hormonal dysfunction. Indeed, the dominant theories about PMS since 1931 have pointed to some kind of hormonal problem. It was originally thought to be caused by an excessive secretion of estrogen by the ovaries, and in fact some women had their ovaries treated (unsuccessfully) with irradiation. Some years later this theory was unseated by another, that PMS was linked to a deficiency of progesterone, the female sex hormone that prepares the uterus for pregnancy; and soon after, physicians began experimenting with supplements of natural progesterone derived from yams or soybeans. Later it was decided that an improper balance of the two hormones was responsible. A recent theory implicates the hormone prolactin, which triggers lactation in women, and some women are now being treated with bromocriptine, which blocks the flow of prolactin.

But according to Haskett, the end result of all the theorizing is that nothing is really known about PMS. He says he has been able to identify no consistent hormonal pattern that distinguishes PMS patients from normal controls; nor has he found any consistent change in hormonal function throughout the cycle. And no treatment has been found to be especially effective, Haskett says: 60 to 70 percent of his subjects improved significantly during three months of treatment whether they were getting a drug or a placebo. "What seems to be the case," he says, "is that most women respond to general support and education." Other researchers have come up with comparable results. According to psychiatrist Frank R. Ervin of McGill University in Montreal, there does seem to be a group of women who respond to drugs, but others respond to a change in diet, a restriction in water or salt, or a vitamin B6 supplement — things, he says, that "simply tip the metabolic balance."

The inconclusive research results have not prevented the proliferation of PMS clinics, many of which offer expensive evaluations and treatments — usually progesterone treatment. Because of data linking progesterone to cancer in laboratory animals, the federal Food and Drug Administration has not approved large-scale manufacture of the drug, but physicians are not prohibited from prescribing it. And the personal testimony of PMS patients is convincing to at least some: Levy says that while progesterone has not eliminated her symptoms, it has made her capable of willfully controlling what were previously intolerable situations.

She and hundreds of other PMS patients are taking progesterone several times daily during every premenstrual period. The major evidence supporting progesterone therapy comes from Dalton in England, who has been treating PMS patients with the drug for years; she estimates that if PMS is carefully diagnosed, about 80 percent of the patients should respond to progesterone. She has never done systematic, controlled studies, however. Meanwhile, the National Center for Premenstrual Syndrome and Menstrual Distress in New York publishes literature identifying PMS as "a progesterone deficiency disease" that can be successfully treated with monthly progesterone supplements.

The reason for all the confusion, according to Columbia University psychologist Jean Endicott, is that all of the existing studies have mixed together subjects with a wide range of symptoms and called them all PMS. "There is no one premenstrual syndrome," she says. "Some women are anxious and agitated. Some are angry. Some are lethargic and overeat, while others have insomnia and don't eat. It's highly unlikely that the same biological variables are involved in hypersomnia and insomnia." Endicott and psychiatrist Uriel Haelbreich of Albert Einstein College of Medicine have developed a research tool that can be used to sort out different subtypes of PMS according to 95 distinct premenstrual changes. They have found, for example, that there are at least three kinds of premenstrual depression, each with different physical and mental symptoms, and that only one kind — characterized by hostility — is closely associated with extreme pessimism, suicidal ideas and lack of judgment.

The idea that there might be several brands of PMS, some more extreme than others, is appealing to scientists who have difficulty reconciling their own clinical experience with the homicidal cases that end up in court. As Rubinow says, "I question whether those we read about don't have some ongoing disturbance, which in combination with menstrual change leads to a loss of control."

Ervin agrees. "None of the well-publicized criminal cases has been checked out for an underlying brain disease," he says. "And listening to the symptoms and going through the records, I could make a strong case that they had temporal lobe epilepsy." A sudden metabolic shift, perhaps triggered by menstrual change, could trigger an attack in someone whose brain is vulnerable. Temporal lobe epilepsy is extremely difficult to identify with an EEG, Ervin says, but the kind of transient psychosis that it is known to cause is very similar to "episodic psychosis," which has been well documented in women. "These women are really very crazy," Ervin says. "They become confused and suspicious. Sometimes they are delusional. They are psychotic for three or four days, then it clears up totally and they are amnesiac about that time." A recent analysis of these cases, Ervin says, indicates that these periodic psychotic breaks might very well be linked to the premenstrual period.

A 1980 research review did reveal evidence that seizures can be exacerbated by menses, but it also revealed evidence of cyclical variation in seizures among men and children. As with PMS, the data on hormonal changes are contradictory. Temporal lobe epilepsy has been used successfully — by a male — as a murder defense in the U.S. courts, and scientists are clearly more comfortable with implicating a brain lesion than with implicating the menstrual cycle in violent crime. At least for the time being, most of the psychiatric experts on PMS are staying out of the courtroom, looking for better data. But the best scientific hunch, most say, is that expressed by Hurt: "Normal women aren't driven crazy by their menstrual cycle," he says. "But crazy women can be driven crazier." □