

## PMS AND THE WORKPLACE\*

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*Surprisingly, few studies have been reported regarding the effects of premenstrual syndrome (PMS) in the workplace. Given the increasing number of working women, it is important to ask whether PMS has any significant effect on work behavior. The purpose of this review is to consider selected PMS research in order to integrate the more relevant work-related findings and suggest how employers might best use this knowledge.*

The popular press and scientific journals have increasingly featured articles on premenstrual syndrome (PMS). With an increasing number of women working, it is appropriate to ask whether PMS has any significant effect on work behavior. If it does, then the issue becomes how to minimize any resulting negative consequences. In addition to diagnostic and other methodological problems, however, a stigma surrounds so personal a topic. Moreover, a question exists concerning the extent to which an employer should be involved with such a personal matter. This question is compounded by the insistence of some researchers that PMS has its roots in psychological, not physiological, factors. The purpose of this review is to consider selected PMS research in order to integrate the more relevant work-related findings and suggest how employers might best use this knowledge.

Whether talking to men or women, laypersons or professionals, it is easy to find widespread popular support for the notion that women routinely experience both physical and emotional changes corresponding to their monthly menstrual cycles. Of particular concern are those changes occurring in the "premenstrual" phase, i.e., the days just prior to the onset of menstruation. In reviewing the relevant literature, there are numerous articles in both

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the popular press and scientific (medical and psychological) journals dealing with these changes.

The popular press was first attracted to the PMS issue by a *New York Times* (Lydon, 1970) article headlined "Doctor Asserts Women are Unfit for Top Jobs." In the article, Edgar F. Berman, a physician and member of the Democratic Party's Committee on National Priorities, stated that physical factors, particularly the menstrual cycle and menopause, disqualified women from "key executive jobs." He is quoted as asserting, "If you had an investment in a bank, you wouldn't want the president of your bank making a loan under these raging hormonal influences at that particular period" (p. 35).

In the scientific press, PMS was first described by Frank (1931) as a premenstrual feeling of "indescribable tension", "irritability", and "desire to find relief by foolish and ill-considered actions" (p. 1054). Contemporary researchers discuss premenstrual "distress", "pain", or "syndrome", with the latter term designed to include both physical and emotional factors. British physician Katharina Dalton (1964), a prolific researcher in the field, has identified a wide range of physical signs including marked tension, depression, lethargy, sleep disturbances (hypersomnia and insomnia), headache, vertigo, asthma, rhinitis, nausea, backache, constipation, abdominal bloating, increased appetite, joint and muscle pains, heart palpitations, pain or tenderness of the breasts, and acne and other skin eruptions as being associated with PMS. Dalton notes that not all affected women experience each of these symptoms, and where present a wide variation occurs in their severity. She also notes, however, that many chronic conditions worsen during the premenstruum—rheumatoid arthritis, ulcerative colitis and asthma are among these. Dalton's (1964, p. 39) definition is rather vague and cumbersome. She asserts that symptoms must meet the following three conditions to be considered indicative of PMS (a) be present in the three prior menstrual cycles, (b) be severe enough to warrant pain relievers or medical attention, and (c) occur at a specific point in the menstrual cycle and be limited to the three premenstrual days, menstruation, or mid-cycle. The operational definition of PMS for research purposes is a complex issue not yet resolved (Bancroft & Bäckstrom, 1985).

### INCIDENCE

How widespread and how severe are the problems experienced by PMS sufferers? Reid and Yen (1981) report that 70 to 90 percent of women claim to have recurring PMS symptoms and 20 to 40 percent "report some degree of temporary mental or physical incapacitation" (p. 86). It is usually noted, however, that relatively few sufferers, perhaps 5 percent, have severe enough symptoms to interfere with their daily routines (Abplanalp, 1983; Bickers & Woods, 1986; Gonzalez, 1981).

If, in fact, PMS is a condition severe enough to disrupt the lives of a significant number of women, there should be evidence in both personal and work contexts. Indeed, it is easy to find references to disruption of relationships (e.g., Reid & Yen, 1981), as well as antisocial behavior that is thought to interfere with work and personal relations (e.g., Bickers & Woods, 1951; Parker, 1960). Dalton's (1964) work is replete with anecdotal reports of the influence of PMS symptoms on women and their families.

Several writers have noted the apparent correlation between PMS and increased incidence of suicide, accidents, child abuse, and criminal acts. Dalton (1959) reported that 46 percent of psychiatric admissions and 53 percent of attempted suicides occurred premenstrually or during menstruation. Child neglect and abuse may result from premenstrual lethargy and irritability (Dalton, 1964). Women are reported to commit more crimes during the premenstrual period (Bickers & Woods, 1951; Dalton, 1964). As Parlee (1973) points out, however, this does not mean that women are more likely to commit crimes, only that if they are going to commit crimes they will more likely do so premenstrually. So widespread are these statistics in Europe that PMS is successfully being used as a defense in the courts. In the United Kingdom, it has been accepted as a contributing factor in violent crimes (Abplanalp, 1983; Gonzalez, 1981; Sommer, 1984). In France, PMS may justify a plea of temporary insanity (Gonzalez, 1981).

Given the increased number of working women, it is surprising that very few studies have been reported regarding the effects of PMS in the workplace. This is especially significant since it was estimated several years ago that PMS cost U.S. industry 8 percent of its total wage bill (see Watkins, 1986). In 1960, absenteeism "largely because of premenstrual symptoms" was alone estimated to cost around \$5 billion annually (Parker, 1960, p. 339).

The few workplace studies that have been conducted are admittedly dated. They do, however, indicate premenstrual performance decrements. In the most frequently cited study, Bickers and Woods (1951) found that 36 percent of 1,500 female employees in an industrial plant sought some form of pain relief in the premenstrual week. Sfogliano (cited in Redgrove, 1971) reported lower outputs for 43.3 percent of 130 women making transistors. Output was reduced by 40% or more in greater than half of these cases. In another frequently reported study, the average production rate among premenstrual female assembly line workers in one Texas Instruments plant dropped to 75 components an hour from 100 (Watkins, 1986). In their study of 249 females working in a prison laundry, Morton et al. (1953) reported a one-third increase in output following treatment for PMS symptoms. Wood, Larsen, and Williams (cited in Bancroft & Bäckstrom, 1985) reported a correlation between PMS and dissatisfaction with work. Dalton (1964) likewise discusses a number of PMS-based work-related phenomena. In one study, she found that 45 percent of 269 female employees reporting ill were premenstrual or menstruating. Dalton described the tendency among premenstrual women to do minimal amounts of work, to lack creative inspiration, and to

suffer clumsiness due to loss of manual dexterity. She claims premenstrual women experience "an inability to cope even with routine jobs" (p. 8), and may postpone difficult or important tasks. Dalton suggests that PMS may be a factor in job resignations and in the preference of many women for male bosses, since females are likely to become more strict prior to menstruation (p. 7; p. 92). Finally, two independent studies of women athletes (Brunelli & Rottini; Fichera & Romano both cited in Redgrove, 1971), indicated lower performance premenstrually.

### ETIOLOGY

What causes PMS? The relevant literature discusses both physical and psychological factors. There have been several detailed medical discussions of various physiological causes (Bickers & Woods, 1951; Dalton, 1964; Parker, 1960; Reid & Yen, 1981). A detailed review would be repetitive. The major themes center around fluctuating hormone levels and the influence of increased water retention.

With respect to psychological causes, numerous studies focus on emotional components and the degree to which they may augment physical ailments or be influenced by factors unrelated to the menstrual cycle. There is considerable support for the notion that emotional factors, particularly stress, can intensify premenstrual suffering (Dalton, 1964; Reid & Yen, 1981). In this connection, a recent study conducted by Louis Harris & Associates for Bristol-Myers Company reported that working mothers with supposedly high levels of stress more frequently report premenstrual pain than their supposedly less stressed nonworking cohorts (Kleiman, 1986). At the same time, it should be noted that Abplanalp (1983) contends that both a women's history of psychiatric illness and current psychological state are important factors in defining PMS.

Other studies, however, have hypothesized that premenstrual fluctuations may be related to social/cultural knowledge or beliefs more than to actual experience (Ruble & Brooks-Gunn, 1979). One study suggests that reported behavioral fluctuations may be influenced by stereotypes rather than reality (Zimmerman & Parlee, 1973). In another study, both male and female subjects were asked to evaluate written material which varied the moods and emotions of a hypothetical female, who in some cases was premenstrual and sometimes not (Koeske & Koeske, 1975). Its authors note that data on the subjects indicate they held a "fairly coherent set of beliefs about menstruation and associated mood swings" (p. 473). Furthermore, they associated negative moods such as depression and irritability with oncoming menstruation.

### MENSTRUAL CYCLE ACCEPTANCE

Paulson (1961) approached PMS from the standpoint of how women

accept their menstrual cycles. He studied the relationship between premenstrual tension and six psychological factors (i.e., increased family tensions, frightening and negative feelings toward menstruation, self-concept, and inability to fulfill both expected psychosocial and psychosexual roles). All six factors were positively and significantly related to increased PMS. In an item analysis, Paulson found the highest correlations between total premenstrual tension scores and six PMS symptoms: decrease in general morale, feelings of tension, depressed feelings, irritability, resentment and hostility to others, and emotional and crying spells.

He also noted a higher incidence of negative sexual encounters among women reporting more of these symptoms. Finally, Paulson found a significant positive correlation between severity of symptoms and incidence of PMS in the subjects' mothers. Although Paulson (1961) and others have suggested that this effect is due to social learning from exposure to menstrual fears and discomforts, it could reflect genetic predisposition (Bancroft & Backstrom, 1985).

A 1974 study by Patty and Ferrell examined the results of a thematic content exercise in which subjects were asked to complete a brief vignette. Significantly more premenstrual than intermenstrual women wrote "success avoiding" stories. The authors concluded that while women may value success, when they are premenstrual, they may be less self-confident about defying social norms of femininity. Patty and Ferrell also acknowledged that PMS may represent attitudes concerning menses rather than results of hormonal changes. In a study that manipulated women's beliefs as to whether they were or were not premenstrual, Ruble (1977) found that PMS symptoms were reported only for women who *believed* they were premenstrual. However, since women with severe PMS were not included, and since it was not shown that symptoms could be avoided by deceiving premenstrual women into believing they were not about to menstruate, this finding is less significant than it appears (Bancroft & Backstrom, 1985; Gannon, 1981).

### METHODOLOGICAL PROBLEMS

The above studies shed light on several PMS-related phenomena. They, however, also divulge a host of problems encountered in its isolation, definition, measurement, and even diagnosis. The latter is complicated by the fact that there are no symptoms specific only to PMS—there are a large number possible, but any one woman may or may not have any or all of them (Abplanalp, 1983; Dalton, 1964; Fausto-Sterling, 1985). It is unknown whether the severe, disabling symptoms reported by a few women represent one end of a continuum, which also includes milder forms of the same symptoms reported by many women. As Fausto-Sterling (1985) points out, symptoms associated with PMS are present in all of us (males and females) from time to time. Furthermore, researchers do not exactly agree on what time

period to consider premenstrual.

A related problem is a dependence on self-reported data. Recall that Ruble (1977) found women only reported symptoms when they believed they were premenstrual, suggesting that women may exaggerate normal fluctuations during the premenstruum. This may be related to the idea that women have learned they should feel bad, and therefore "selectively remember" symptoms before their periods and not at other times (Fausto-Sterling, 1985, p. 103). In addition many studies are not blind - women participating know that the purpose of the study is to relate symptoms and the menstrual cycle (Fausto-Sterling, 1985, p. 105). An additional factor is that women who think they suffer from PMS are more likely to participate in studies. At a more basic level, Parlee (1973) challenges the reliability and validity of most questionnaires used in PMS research.

As a consequence of such methodological problems, a number of writers point to a lack of evidence regarding the existence of PMS or its supposed effects on behavior (work or otherwise). Zimmerman and Parlee (1973) note that, "while 'it is generally accepted' that women experience changes, related to the menstrual cycle, in mood and behavior, ... the basis for this 'general acceptance' does not seem to be scientific evidence" (p. 336). In support of this conclusion, Ruble and Brooks-Gunn (1979) report that changes in "global measures of performance" involving a range of skills from simple motor to complex analytic tasks have not been established (p. 173). Similarly, Sommer (1982), in a review of 81 cognitive and perceptual-motor performance tests carried out in 35 independent studies, found no support for perimenstrual performance decrements.

Fausto-Sterling (1985, p. 101) presents a thorough treatment of methodological problems encountered in PMS studies: inadequate sample sizes, poor choice of subjects, tests tailored to obtain specific results, and little or no statistical analysis. Failing to examine the severity of symptoms may result in someone suicidal being classified similarly to someone with mild depression - both would be diagnosed with PMS, but their symptoms may have vastly different causes. Moreover, Fausto-Sterling questions a syndrome which would define 70 to 90 percent of women as "diseased".

Dalton specifically has been criticized for failing to subject her theories to controlled studies (Abplanalp, 1983; Fausto-Sterling, 1985; Gonzalez, 1981; Parlee, 1973). Her panacea for severe PMS is treatment with the hormone progesterone, although she acknowledges uncertainty about the exact dosage required. Fausto-Sterling (1985), however, indicates that women being treated for PMS respond to placebos as much as to drugs or hormones. A related problem is that many women have suffered from PMS for years without being able to convince physicians of the severity of their complaints. Participation in treatment trials may be the first acknowledgement of their problem, and may result in a placebo effect simply from the standpoint of them being reassured that they are not mentally ill (Abplanalp, 1983).

### PRACTICAL IMPLICATIONS

Given the various methodological problems reviewed, it is unlikely that incontrovertible evidence will soon be found that PMS influences job performance. Although there is presently no scientific evidence that PMS affects behavior, it has been shown that women and men alike *believe* there are tangible associated effects; therefore, it seems logical to approach PMS-related beliefs as attributions. The question, then, is how employees might best use the foregoing knowledge. The degree to which employers address this problem may well parallel their involvement in similar issues - stress, burnout, fitness, drug and alcohol abuse - which are central to employees but which can also affect work behavior. A logical choice might be to incorporate PMS into existing wellness programs. Several employers have done exactly this (Watkins, 1986). Levi Strauss has held PMS awareness sessions to inform women about its causes and likely treatments. Westinghouse Electric and Lotus Development have held similar workshops. Control Data reimburses employees for PMS medication. Other alternatives might be to invite guest speakers to address interested groups or encourage employees to meet and discuss PMS-related problems and creative ways to deal with them. Flexible working hours might also be helpful. Beyond this, referrals to outside groups or medical resources may be indicated.

Finally, employers must realize that a primary concern among women is that PMS might be used to keep them out of important and higher paying jobs. As Rosenberg (1986) has noted, some feminists have gone so far as to suggest that all talk of gender differences (including PMS, menopause, pregnancy, and menstruation) "may have to be suppressed in the future lest it be used against women" (p. 20). However, Redgrove (1971) presents a different view. She suggests that the ability to predict lowered capacity due to PMS may make women employees preferable to men, whose output changes cannot be forecast. Still, in many women's minds, admitting to suffering from PMS will reinforce men's worst female stereotypes. That is, women are hostages of their hormones. As one PMS clinic counselor comments, "You would have to have a highly liberated male boss to be able to explain this kind of thing to him" (C. McCarthy quoted in Watkins, 1986).

### AN AGENDA FOR PMS RESEARCH

Numerous gaps exist in our understanding of PMS, especially as it relates to potentially adverse consequences in the workplace. Furthermore, the effectiveness of organizational and outside medical/psychological interventions designed to mitigate these consequences remains to be seen. As discussed, researchers, perhaps because of the methodological problems noted, have shown little interest in investigating the effects of PMS on job

performance. In contrast, the popular press abounds with accounts of behavioral effects resulting from PMS, as well as prescriptive medical and behavioral suggestions for dealing with various pain, stress and emotional concomitants.

The widespread popular belief that PMS causes behavioral changes should arouse concern among researchers as to the specific nature of such changes, especially as they relate to job outcomes. In addition, constructive ways to ameliorate negative PMS consequences is a fertile area for further inquiry. To stimulate consideration of these and other topics, the following suggestions for future research are provided.

### SPECIFIC RESEARCH METHODS AND TOPICS

#### *Longitudinal Prospective Studies.*

Longitudinal studies are needed to facilitate understanding of the relationship between PMS and factors such as age, experienced stress (e.g., job loss, promotions, personal crises), career stage, occupation, and psychological well-being. Unlike studies which focus on historical or current "snapshot" data, longitudinal research would provide information on probable patterns or events likely to affect or be affected by PMS severity.

#### *Mediating Process Research.*

Studies sampling a wide variety of age, racial, ethnic, and socioeconomic groups could well reveal important moderators of the relationship between PMS and various job outcomes. Additionally, it may be worthwhile to investigate PMS-related consequences among different cohorts—professional, blue collar, managerial, clerical, and unemployed women. Demographic and psychological differences between such groups may well influence the practicality of alternative PMS intervention programs.

#### *Research on Attributions.*

As noted, research indicates that attributions regarding menses affect evaluations of female moods and emotions. Related research could discover whether such attributions affect evaluations of female employee performance. If this proves to be the case, additional research could investigate whether such attributions (a) differentially affect male and female evaluations of female employee performance and (b) apply to women as a group or only to specific women (i.e., those exhibiting PMS symptoms).

#### *Research on Individual Coping Mechanisms.*

Whether their symptoms are real or psychosomatic, women have dealt with PMS for years. Research into commonly employed coping mechanisms may provide valuable information for use in counseling female employees. Successful coping mechanisms may well moderate the relationship between PMS and negative job outcomes.

#### *Interdisciplinary Research.*

As discussed, while some researchers suggest medical treatment for PMS

sufferers, others concentrate on psychological support. Researchers primarily interested in the behavioral consequences of PMS should investigate working with biomedical researchers to integrate the knowledge of PMS etiology and outcomes. By viewing PMS as a syndrome rather than a distinct malady, a more comprehensive body of conceptual and empirical data will hopefully evolve.

### CONCLUSION

Future research in the area of PMS is open. In addition to the needs cited, controlled studies of the effects of PMS on work behavior would be helpful. Employers must be convinced of the dollars and cents significance of this problem before they can be expected to provide assistance. For the time being, PMS is still under cover at most companies and will likely remain so until women speak out and a better acceptance of PMS is achieved.

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