

\PREMENSTRUAL SYNDROME AND MARITAL SATISFACTION:!

by

Mary Linda „Sara„

A Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY
in
FAMILY AND CHILD DEVELOPMENT

APPROVED:

~~Linda Thompson~~, Chairperson

~~Linda F. Little~~

~~Howard-O. Protinsky~~

~~Michael J. Sporakowski~~

~~Lee M. Wolfle~~

June, 1986

Blacksburg, Virginia

ACKNOWLEDGEMENTS

It seems appropriate to start by thanking all the wonderful people who have been connected with the completion of this project. Without them, the project would be just another dream -- not an accomplishment. The order in which they are acknowledged has no correlation with either the amount or priority of my appreciation to them. .

I would like to thank first the members of my committee. Each person was individually helpful. As a result of my tenure at Tech., I am especially pleased to call many of them "Friend", as well as "Professor". Linda Thompson, as Chair of the committee, has been endlessly patient as we thought out the more creative aspects of researching the enigmatic problem called PMS and the data analysis of such a difficult-to-define concern. To

, I am also especially grateful for the kind way he helped me edit the work. To , who was a life-saver in Northern Virginia, I am also thankful.

, as statistical consultant, helped me to define what was "line" and what was "noise", while stayed successfully differentiated!

I am especially grateful to . and , for allowing me access to their patients. I would have been lost without the six couples

who participated in the research per se, filling in the forms daily for a month.

On a personal note, I need to acknowledge the role of my parents. In traditional fashion, my father helped out with the financial aid to see me through my student days, while my mother provided the encouragement, advice and interest in my work that provided the incentive, not only to start, but also to finish. I am only sorry she is not here to see the end.

To , as well as many other friends too numerous to name, who gave me support when I needed it, I acknowledge my debt.

Lastly, but most importantly, I want to thank my partner, . He spent endless hours as my typist, computer expert, statistical advisor, devil's advocate and husband.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	ii
LIST OF TABLES.....	vi
I. INTRODUCTION.....	1
II. REVIEW OF THE LITERATURE.....	6
What is PMS	6
Mood and PMS.....	9
PMS and Marriage.....	13
Marital Relating.....	16
Hypotheses.....	19
III. RESEARCH METHODS.....	22
Sample.....	22
Instrumentation.....	24
Data Collection Procedure.....	27
Data Analysis.....	29
IV. RESULTS.....	32
Case 1.....	32
Case 2.....	37
Case 3.....	43
Case 4.....	48
Case 5.....	54
Case 6.....	60
V. DISCUSSION AND CONCLUSIONS.....	66
PMS.....	66
Pleasing behaviors.....	70
Displeasing behaviors.....	73

DISCUSSION AND CONCLUSION con't

Marital satisfaction.....	76
PMS and Marital Relating.....	79
REFERENCES.....	86
APPENDICES.....	98
APPENDIX A	99
Proposed Etiologies.....	100
APPENDIX B	115
Response Card.....	116
Intake Sheet.....	117
Consent Form.....	118
Exit Interview.....	119
APPENDIX C Research Instruments.....	120
Spouse Observation Checklist.....	121
Moos Menstrual Distress	
Questionnaire.....	131
VITA.....	135

ABSTRACT

LIST OF TABLES

Table	Page
1 Common symptoms of premenstrual syndromes.....	2
2 Correlations between changes in negative affect and variables in the marital relationship, Case 1.....	33
3 Correlations between changes in negative affect and variables in the marital relationship, Case 2.....	38
4 Correlations between changes in negative affect and variables in the marital relationship, Case 3.....	44
5 Correlations between changes in negative affect and variables in the marital relationship, Case 4.....	49
6 Correlations between changes in negative affect and variables in the marital relationship, Case 5.....	55
7 Correlations between changes in negative affect and variables in the marital relationship, Case 6.....	61

CHAPTER ONE

INTRODUCTION

In writing about Premenstrual Syndrome (PMS), one is faced with many dilemmas. Although clinically documented as early as the mid-nineteenth century (De Wees, 1840), there is still no common definition, understanding of etiology or treatment. The only thing that seems certain is that a percentage of women experience a variety of symptoms on a monthly basis. These symptoms vary from the relatively annoying but innocuous weight gain and bloating (Sharma, 1982), to the more severe symptoms of debilitating depression or migraine headaches (Smith, 1975). Rubinow and Roy-Byrne (1984) have summarized research findings that suggest over 150 symptoms as belonging to this clinical syndrome (see Table 1).

Treatment for PMS is obtainable, although problematic, since no one treatment has been shown to be more effective than others (Clare, 1979). Progesterone appears to be the treatment of choice for the more severe cases (Greene & Dalton, 1953; Norris, 1983). Since the reason progesterone works is still unclear, the Federal Drug Administration has not certified its use for the treatment of PMS (Henson, 1984). However, not knowing how a drug effects cure is not a new dilemma to medicine; for example, effective treatment of childhood hyperactivity through the use of amphetamines

Table 1

Common Symptoms of Premenstrual Syndromes

AFFECTIVE	COGNITIVE
Sadness	Decreased concentration
Anxiety	Indecision
Anger	Paranoia
Irritability	"Rejection sensitive"
Labile mood	Suicidal ideation
PAIN	NEUROVEGITATIVE
Headache	Insomnia
Breast tenderness	Hypersomnia
Joint and muscle pain	Anorexia
	Craving for certain foods
AUTONOMIC	Fatigue
Nausea	Lethargy
Diarrhea	Agitation
Palpitations	Libido changes
Sweating	
CNS	FLUID/ELECTROLYTE
Clumsiness	Bloating
Tremors	Weight gain
Seizures	Oliguria: scant urination
Dizziness	Edema: water accumulated
Vertigo	in the intercellular
Paresthesia	spaces
DERMATOLOGICAL	BEHAVIORAL
Acne	Decreased motivation
Greasy hair	Decreased impulse control
Dry hair	Decreased efficiency
	Social isolation

NOTE. The above is taken from "Premenstrual Syndrome:

Overview from a Methodological Perspective", by David R.

Rubinow, M.D. and Peter Roy-Byrne, M.D., 1984, American

Journal of Psychiatry, 141, p. 170. Copyright 1984 by

American Psychiatric Association. Reprinted by permission

of the authors.

has been possible for years although the exact reason why it works is unknown.

To date, the research has concentrated on the syndrome within the individual. The most recent review of the literature has focussed on the problems that exist with definition, etiology and treatment (Rubinow & Roy-Byrne, 1984). Articles dealing with the intrapsychic aspects have examined questions concerning the neuroticism of women with PMS (Coppen & Kessel, 1963; Taylor, 1979b; Watts, Dennerstein & De L'Horne, 1980) or have examined the trait/state arguments for anxiety or depression (Golub, 1976).

At this time, the effects of PMS on the significant others in a woman's life (i.e., husband and family) have not appeared as an area of research interest. It is logical to expect that a syndrome which can include bouts of depression, anxiety or hostility is going to affect and be affected by the interaction of the people involved. A woman who is more actively experiencing PMS symptoms may be utilizing all of her coping mechanisms in the internal struggle to just keep herself functioning. As a result, her family may experience her as unpredictably emotional, with periods of hostility or depression. Fatigue and listlessness may prevent her from accomplishing her daily tasks for the family. Migraine headaches may remove her

from the family altogether. For some women, social isolation seems to be the only solution. For the family, coping seems to revolve around the discounting of upsetting behavior during "that time of the month", trying to go on as usual, or perhaps trying to be more caring and supportive. For the family, not coping may result in ever escalating arguments and disintegration of family life. Couples may have agreements to put serious conversations on hold until after that "time" is over (Lever & Brush, 1981; Norris, 1983).

There are many questions to be posed and answered about the relationship of PMS to family functioning; for example, how do spouses respond to PMS? How do their responses contribute to the intensity of the PMS symptoms? Could stress in the marital relationship contribute to the onset or increase of PMS symptoms? The literature in family therapy suggests that families are less often distressed when the marital unit is functioning appropriately (Haley, 1980; Minuchin, 1981). Among the variables that contribute to healthy functioning is marital satisfaction. Although there are many components to the concept of marital satisfaction (Lewis & Spanier, 1979), the presence or absence of pleasing and displeasing behaviors has been shown to be significantly correlated with marital satisfaction (Weiss & Isaacs, 1976; Wills,

Weiss & Peterson, 1974). Since these behaviors fluctuate daily, their measurement is almost ideal for studying the connection between marital satisfaction and daily changes in menstrual symptoms.

The purpose of this study, then, is to determine whether there are changes in the behaviors of the marital unit when the wife's PMS symptoms become more or less active during her monthly cycle. In order to address this research question husbands and wives rated each other's pleasing and displeasing behaviors daily, as well as their own marital satisfaction. In addition, both spouses' perceptions of PMS were considered. That is, the wife's experience of PMS symptoms were measured as well as the husband's perceptions of the wife's symptoms. Finally, qualitative data from exit interviews were used to supplement the quantitative data from the self-reports. Each of the six couples in the sample were analyzed separately as a case study.

CHAPTER TWO

REVIEW OF THE LITERATURE

In this section, the relevant literature regarding PMS will be reviewed. The first section of the review will cover "what is PMS?" The section will include the incidence of PMS in the population, its usual timing patterns and diagnosis, and the definition of PMS. A review of some of the proposed etiologies of PMS has been included in Appendix A.

In the second section, the literature on the affective component of PMS -- mood -- will be reviewed. Mood is the component of PMS that is most frequently linked with marital tension. The third section, therefore, will present anecdotal reports on the connection between PMS and marriage.

In the fourth section, the focus will shift to marital relating. Two concepts will be reviewed from a behavioral perspective: pleasing/displeasing behaviors and marital satisfaction.

In the last section, the research hypotheses will be stated.

What is PMS ?

Incidence

According to Sharma (1982), the general consensus is that 70% to 90% of women admit to some type of recurrent

premenstrual symptoms and about 20% to 40% report some degree of physical or mental impairment. Other reports (Hopson & Rosenfeld, 1984) indicate that 3% to 10% of women experience PMS so severely that their lives are disrupted for a week or two on a monthly basis, month after month.

Patterns and Diagnosis

According to Dalton (1977) four common patterns of PMS exist. These are:

- 1) Three or four days right before the onset of menses.
- 2) Two days around ovulation and then a week before the onset of menses, continuing into the menstrual period.
- 3) Beginning at ovulation and ending just before the beginning of the menses.
- 4) Starting with ovulation and continuing through the onset of menses.

The consensus of many authors (Dalton, 1977; Hamilton et al., 1984; Laursen & Stukane, 1983; Lever & Brush, 1981; Norris, 1983) is that the diagnosis of PMS is not based on the symptoms but rather on the timing of the symptoms and the fact that the symptoms abate with the beginning of the menses. The presence of a symptom-free period during the cycle is considered fundamental to the diagnosis.

Definition

Beginning with its definition, PMS is problematic. The majority of authors (Abraham, 1981; Blank, Goldstein & Chatterjee, 1980; Dalton, 1964; Dennerstein & Burrows, 1979; Frank, 1931; Green & Dalton, 1953; Hasket, Steiner, Osmun & Carroll, 1980; Laurensen & Stukane, 1983; Lever & Brush, 1981; Norris, 1983; Rausch & Janowsky, 1982; Reid & Yen, 1981; Sampon & Prescott, 1981; Steiner & Carroll, 1977; Steiner, Hasket & Carroll, 1980; Sutherland & Stewart, 1965; Watts, Dennerstein & De L'Horne, 1980; Wilcoxon, Schroder & Sherif, 1976; Zimmerman & Parlee, 1973) view the premenstrual symptoms in women as a syndrome which may involve as many as 150 symptoms, both physiological and psychological manifestations (Table 1).

There is a semantic struggle to define this menstrual problem in women. For some authors (Abraham, 1981; Dalton, 1964) the term Premenstrual Tension is a subset of the term Premenstrual Syndrome. For others, Premenstrual Tension is used interchangeably with Premenstrual Syndrome (Lever & Brush, 1981; Rausch & Janowsky, 1982; Steiner & Carroll, 1977).

Still other authors disagree with the title "Premenstrual Syndrome". Rubinow and Roy-Byrne (1984) prefer the use of the term "Menstrually Related Mood Disorder", which they define as "the cyclic occurrence of

symptoms that are of sufficient severity to interfere with some aspects of life and which appear with a consistent and predictable relationship to the menses" (p. 163). Hamilton, Parry, Alagna, Blumenthal and Herz (1984) also prefer not to use "Premenstrual Syndrome" as a title until there is further definition and research. Instead, they prefer the term "Premenstrual Changes" (PMC). They believe that PMC "is not defined by its specific clusters but rather by its timing, as if a generalized alteration in responsivity occurs periodically in a vulnerable subgroup of women" (p. 427).

Finally, Harrison (1982) talks about another subset of PMS described as PMM or Premenstrual Magnification. This subset of women may be characterized as having "difficulties" during the entire month which are magnified premenstrually.

For the purpose of this paper Premenstrual Syndrome will be defined as a syndrome associated with a wide range of symptoms (see Table 1) that recurs regularly at the same phase of the menstrual cycle and which is followed by a symptom-free phase in each cycle (Norris, 1983). Eight symptom clusters have been recognized and labelled (Moos, 1985). These are pain, concentration, behavior change, autonomic reactions, water retention, negative affect, arousal and control.

Mood and PMS

Of all the symptoms that make up PMS, mood is a particularly important one since it is connected with interpersonal behavior. As will be seen in the section on marriage and PMS, several authors have associated premenstrual symptoms with problems in the marital relationship. The purposes of this section are to determine which moods may vary over the menstrual cycle and to examine what is known about the variation. As with the studies on etiology, various contradictory hypotheses have been put forward and supported.

The two moods most often mentioned are depression and anxiety. Ivey and Bardwick (1968) found that anxiety was significantly higher premenstrually than at ovulation. Their findings showed consistent themes of hostility and depression in the material presented in unstructured interviews. Their findings "indicated significant and predictable affective fluctuations during the menstrual cycle" (p.336).

Using a different approach, Golub (1976) explored the state/trait differences in anxiety and depression. Tests administered premenstrually showed that the state anxiety and depression scores were higher than those obtained in the mid-cycle but were lower than those of patients with psychiatric disorders. Trait anxiety scores were low and

not significantly correlated with premenstrual depression and anxiety scores. Wendestam (1980) also found depression to be a significant affect experienced by women with PMS. However, in his, research he found hostility to be the primary affect with depression not being correlated to the hostility. Additionally, he found no significant relationship between neuroticism and premenstrual distress. He also found that anxiety was the only symptom that seemed to increase with age.

In contrast to the above research is the work of Haskel, Steiner, Osmun and Carroll (1980). Using the Moos Menstrual Distress Questionnaire (1978). These researchers attempted to define the core aspects of PMS. Item analysis revealed that irritability, mood lability, tension and restlessness (all components of the subscale Negative Affect) were the most prominent emotional descriptors of the symptoms, while depression, anxiety and hostility were shown not to be central.

Smith (1975) agrees with Hasket et al. (1980) in his review of the literature. He states "beyond doubt ... there exists in many women (probably between one third and sixty percent) the tendency to suffer negative affective change, most frequently termed irritability, during the late luteal phase of the menstrual cycle" (p. 26).

Dennerstein and Burrows (1979), in a review that

examined mood and the menstrual cycle, reported the results to be inconclusive. The review examined changes reported in the literature in the premenstrual, menstrual, follicular, mid-cycle and luteal phases. One-half of the studies showed premenstrual increase in feelings of depression, anxiety, fatigue, hostility or irritability; in contrast, one-quarter showed no change in activity, depression, hostility or anxiety in the premenstrual phase that continued into the menstrual phase.

In another review of PMS and mood by Blank, Goldstein and Chatterjee (1980), three hypotheses were reviewed for support in the literature. The first, that women who have premenstrual syndrome and mood changes are neurotic, was supported by two studies and rejected by two. The second hypothesis suggested that a woman's attitude toward menstruation affected the occurrence of PMS. Studies cited suggested that women who have a negative attitude toward menstruation were likely to have problems with PMS. The last hypothesis indicates that mood is affected by the various different phases of the menstrual cycle. In addition to previously cited work by Ivey and Bardwick (1968) and Golub (1976), additional studies were cited to support this hypothesis.

To summarize this section on mood, it is clear that the majority of authors agree that mood is affected by the

phase of the menstrual cycle in some women. The exact percentage of women is not clearly known, although Smith (1975) suggests thirty to sixty percent. The consensus is that the change in affect generally goes toward the negative affects of depression, hostility, irritability, tension, restlessness, anxiety, or mood swings.

For the purposes of this paper then, Negative Affect will be defined as "feelings of loneliness, anxiety, mood swings, crying, irritability, tension, feeling sad or blue, or restlessness". These descriptions compose the subscale Negative Affect on the Moos Menstrual Distress Questionnaire (Moos, 1978).

PMS and Marriage

Although there are no known research results available about the impact of PMS on marriage, most books written for the popular self-help market contain a section on the impact of PMS on this important relationship (Harrison, 1982; Lever & Brush, 1981; Norris, 1983).

In writing about the impact of PMS on marriages, Norris states that it frequently is the partners of women with PMS who make the association between mood change and the menstrual cycle (1983). Twenty to twenty-five percent of his clinical population had been divorced and five to ten percent more than once. All of the divorced women cite PMS as the primary cause of the split, and the former

spouses Norris was able to interview confirmed this belief. Lastly he also states "the most damaging symptoms to a relationship are irritability, anger, verbal and physical assaults, impulsiveness, loss of trust, suspicion or paranoia" (p. 78).

In their book, Lever and Brush (1981) reiterate many of the same points as Norris. They also point out that it frequently is the partner of someone with PMS who notices the connection of symptom-timing to menstruation (p.60). In addition, they reiterate that PMS may lead to divorce, although they do not cite any figures since they are not associated with a clinic. Lastly they use many anecdotes by women who responded by letter to Lever's television show to illustrate that the anger, irritability, aggression and physical violence that the women and their partners experience is correlated with PMS and relationship distress.

Since her book is written as a self-help manual emphasizing diagnosis and treatment, Harris (1982) includes very little anecdotal material; the same themes are discussed, however. In her opening example, a married woman who has lashed out at her husband and finally said she is going to terminate her marriage is told by her husband that she will feel better when her period starts. The example continues to elaborate on the situation of this woman by

stating that she has a career and tends to manage her job well. Harris concludes by asking her readers whether Sally is experiencing PMS or is holding back how she really feels during the rest of the month only to be able, pre-menstrually to tell her husband how she really feels (p. 5-7).

Although the primary purpose of their study was not to examine the marital relationships of the women with PMS, a survey by Clare and Cairns (1978) had a secondary finding (1983) that indicated "a positive but not significant trend for disturbances in the marital function to be associated with the premenstrual complaint that was independent of psychiatric status" (p. 129).

It is clear from these four works that relationships affected by PMS may have a number of similar themes: a) usually both partners are aware that the affect of the woman (as well as some physical symptoms) may be present on a recurring basis; b) it is frequently the man who makes the connection with the menstrual cycle; and c) the impact of some of the more frequently seen symptoms (i.e. irritability, anger and depression) can be so destructive to the relationship that it is no longer viable. Divorce may be the outcome of relationships which have been affected by long standing PMS. In spite of the absence of empirical evidence, therefore, clinicians and lay people

are connecting PMS with marital distress. The purpose of this study is to test this connection. In order to do this, an appropriate conceptualization of marital relating and satisfaction is needed. The next section describes these two concepts.

Marital Relating

Having reviewed the important information related to the variable, PMS, it is now necessary to turn to the relevant literature about the area of marital relating. In this section, a brief outline of marriage, marital distress, pleasing/displeasing behaviors and marital satisfaction will be presented. The theoretical orientation that will be used is behavioral-systems modeled after the work of Robert Weiss (1981) and some of the people trained at the University of Oregon in Behavioral Marital Therapy. This orientation was chosen since "emphasis is placed on assessing relationships as systems, assessing spouses' cognitions about the relationship and assessing the relationship between cognitions and behavior" (Margolin, 1981, p. 91).

Within this framework, then, the marital relationship has been defined as "a process of circular and reciprocal sequences of behavior and consequences where each person's behavior is at once being affected by and influencing the other" (Jacobson & Margolin, 1979, p.13). This definition

is important since the focus of this research is not on how a particular trait affects an individual but rather how a particular state (negative affect associated with PMS) affects the nature of interactions in a relationship.

Pleasing and Displeasing Behavior

According to Weiss (1973), a please is any event originating with the partner that the receiver defines as pleasing or worthwhile. The intent of the originator is not in question. In contrast, a displease is any event originating with the partner that the receiver defines as displeasing. Again the intent of the originator is not in question. Researchers have concluded that distressed couples relative to non-distressed couples exchange a relatively low rate of pleasing behavior, a high rate of displeasing behavior or both (Margolin, 1981). Birchler (1975) reported that "not only did the distressed dyads report significantly more daily conflict relative to the nondistressed couples, but their daily exchanges of pleases and displeases indicated a far greater emphasis on displease exchanges" (p. 352).

Satisfaction

As can be expected from previous sections, the variable of satisfaction will be defined in terms of behavioral components. From other sources, the variable of marital satisfaction has usually been defined by means of a

global, retrospective review of the relationship based on a one-time report by the couple; an example of this type of measure would be the Locke-Wallace Marital Adjustment Test (Locke-Wallace, 1959). In contrast, the behavioral school theorized that the components of marital satisfaction could be more accurately determined by the examining the current behavior of the spouses and their evaluations of that behavior.

In 1974, Wills, Weiss and Patterson found that 25-40% of the variance in a daily satisfaction rating (dsr) could be accounted for by tracking specific classes of behavior (pleases and displeases). When participants were asked to make judgments based on the prior day's events the explanation of variance of the dsr went to 95%. In addition, it was found that the sources of satisfaction for husbands and wives were different and that each had a different meaning for the word satisfaction. However, the results were consistent with previous research findings that displeases were a greater determinant of the degree of marital satisfaction than pleases.

Jacobson and Margolin (1979) have written about the process aspects of marital satisfaction and have indicated that couples are continually processing information about their marriage and that this evaluation affects both the way the spouses view the quality of the relationship and

subsequent behavior. Judgments of marital dissatisfaction, therefore, are based on spouses perception of displeasing behaviors within the couple. Although pleasing and displeasing behaviors are connected with marital satisfaction in the process of marital relating, each aspect of marital relating should be considered in its own right. For the purposes of this study, then, marital satisfaction was defined as the daily satisfaction rating, given by each spouse.

Hypotheses

Based on the preceding review of the literature, the following null hypotheses regarding the connection between marital relating and negative affect associated with PMS will be tested:

HYPOTHESIS 1a: Based on a daily relationship satisfaction rating, the husband's marital satisfaction will not change as a function of his perception of his wife's changing negative affect.

HYPOTHESIS 1b: Based on a daily relationship satisfaction rating, the husband's marital satisfaction will not change as a function of his wife's perception of her changing negative affect.

HYPOTHESIS 2a: Based on a daily relationship satisfaction rating, the wife's marital satisfaction

will not change as a function of her husband's perception of her changing negative affect.

HYPOTHESIS 2b: Based on a daily relationship satisfaction rating, the wife's marital satisfaction will not change as a function of her perception of her own changing negative affect.

HYPOTHESIS 3a: The husband's perception of changes in displeasing behavior by his wife will not be a function of his perception of her changing negative affect.

HYPOTHESIS 3b: The husband's perception of changes in displeasing behavior by his wife will not be a function of her perception of her changing negative affect.

HYPOTHESIS 4a: The wife's perception of changes in displeasing behaviors by her husband will not be a function of his perception of her changing negative affect.

HYPOTHESIS 4b: The wife's perception of changes in displeasing behaviors by her husband will not be a function of her perception of her changing negative affect.

HYPOTHESIS 5a: The husband's perception of change in

pleasing behaviors by his wife will not be a function of his perception of her changing negative affect.

HYPOTHESIS 5b: The husband's perception of change in pleasing behaviors by his wife will not be a function of her perception of her changing negative affect.

HYPOTHESIS 6a: The wife's perception of change in pleasing behaviors by her husband will not be a function of his perception of her changing negative affect.

HYPOTHESIS 6b: The wife's perception of change in pleasing behaviors by her spouse will not be a function of her perception of her changing negative affect.

CHAPTER THREE

RESEARCH METHODS

Sample

A sign was placed in two gynecologists' offices in the Northern Virginia area which read: "PMS research being conducted in this office, notify the front desk if you and your spouse might be interested." If a couple was interested, the members filled out a response card (See Appendix B) which was mailed by the physician's office staff back to the researcher. The cards indicated a time to be called and the researcher made initial phone contact with possible subjects to answer any questions and to make arrangements for an initial interview to further explain the research.

The sample was composed of six married couples in which the wife was between the ages of 25-40. The women in the sample were not allowed to be using oral contraceptives nor could they be using prescription drugs to treat their PMS. The women in the sample were also asked to discontinue the use of any over-the-counter (OTC) products during the active research phase. If the woman had initiated dietary changes, or other natural coping strategies, these were noted but not discontinued.

The population for this sample was chosen based on the following considerations. First, the purpose of this study was to examine the interactions of couples where the

husband and/or the wife believed she had PMS. It was necessary, then, to begin with women who had already identified themselves as having PMS. Second, the age range of women who seem to be the most at risk for PMS is from 30 to 40 years (Norris, 1983). Other factors have been identified, however, that would qualify women younger than 30. These factors include the number of children the wife has born; a history of post-partum depression and/or a history of the use of birth control pills coupled with any of the other factors listed above (Dalton, 1964). The age range was lowered, therefore, to 25 for women who met one or more of these criteria. Third a controversy remains in the literature about the use of oral contraceptives (OCS) and PMS in terms of both etiology and treatment (Culberg, 1972). It has been suggested by many authors, that population samples be clear about usage of OCS. In order to keep the sample as homogeneous as possible, it was decided to screen out women using oral contraceptives.

Specific demographic information about each couple can be found in the description of each case in the research section.

Sample Limitations

1) No attempts were made to control the sample for variables such as race, ethnic background, religion or socio-economic background. In addition, since there was no

attempt to randomize subject selection the ability to generalize from this sample to a universe would be extremely limited.

2) Since subjects in this study were all volunteers, motivational and personality characteristics may be different from those who do not volunteer (Rosenthal & Rosnow in Achenbach, 1978).

4) The subjects in the study self-defined PMS. Although their self-definition overlapped in many areas with the more medically accepted and conservative definitions, there still exists a lack of objective corroboration about the presence of the syndrome in this group.

Instrumentation

Menstrual Distress Questionnaire

The Menstrual Distress Questionnaire (MDQ) lists 47 of the most frequently experienced symptoms of the menstrual cycle; it is available in two forms. Form A relies on a woman's retrospective thoughts and feelings about her previous cycle, while form T is more appropriately used for daily assessments of her current cycle. The items are ranked on a Likert-type scale of 5 points ranging from "none" (0) to "present severe" (4). As a result of factor analysis, eight symptom clusters were recognized and labeled from Form A (N=839). These eight clusters include:

pain, concentration, behavior change, autonomic reactions, water retention, negative affect, arousal and control.

Means and standard deviations are available for the eight subscales based on Form A. Analysis of data shows that Form A norms can be used with Form T (Moos, 1977). In research with both forms, good internal consistency was found to be present. For the eight subscales, the internal consistency ranged from .56 to .94 on Form T and from .53 to .89 on Form A; Negative Affect, the subscale used in this study, has an internal consistency of .89 on Form T (Kleinsasser cited in Moos, 1985). In research using Form T, evidence was also found to support intercycle stability (Moos, 1977). Researchers (Moos et al., 1969; Silbergeld, Brast & Noble, 1971; Wilcoxon, Schrader & Sherif, 1976) have found that the MDQ is sensitive to phase effects.

Lastly Wilcoxon, Shrader and Sherif (1976) in research with Form T tested for instrument deterioration and found no significant results. They found no significant change in the self-reporting of their subjects due to a loss of effort or interest.

Form T was utilized in this research project. Only the subscale Negative Affect was used as the measure of symptom activity for the purposes of this study. It was chosen because, according to Moos (1985), it is one of the two subscales most closely associated with PMS. Also, lay and

clinical evidence points to the singular importance of the affective component of PMS for the marital relationship.

Spouse Observation Checklist (SOC)

This check-list contains about 400 discrete behaviors covering twelve areas of marital interaction: affection, companionship, consideration, sex, communication process, coupling activities, childcare and parenting, household management, financial decision making, employment-education, personal habits and appearance, and spouse and self independence (Weiss, 1975).

Pleases and Displeases are recorded daily along with a self-rating of the relationship satisfaction (9-point Likert Scale). A Please has been defined as any event originating with one partner that the receiver defines as pleasing or worthwhile. The intent of the originator is not in question. A Displease is the opposite of a Please.

The measure provided a profile of marital interaction. For each spouse a daily total of pleases and displeases was tallied. Marital satisfaction was based on the one item indicating satisfaction on the SOC.

Although no reliability or validity scores are available from the author for the SOC, Birchler (1972) found that derived Pleasing/Displeasing ratio was correlated to the Locke-Wallace Marital Adjustment Test Score of his couples ($r=.54$, $p < .02$). This correlation, a

concurrent validity estimate, indicated an overlap in the variance of self-reported global satisfaction and daily observation of specific behaviors.

Wills, Weiss and Patterson (1974) found no evidence of "observer-drift" over a 14 day period. This is a concept similar to instrument deterioration described above for Form T of the MDQ.

For the purpose of this research, the personalized SOC, modeled after the work of Atkinson and McKenzie (1984) was used. In this version, the SOC is personalized by each couple. Using a computer, the couple is allowed to delete items that are not relevant to their relationship or that are neither pleasing nor displeasing. According to Atkinson and McKenzie's research, the effect of this personalization is to eliminate, on the average, 128 of the original 400 items ($SD = 38.29$). The form is thus made more relevant and less time-consuming. The personalized SOC's for the six couples in the current study ranged from 229 to 385 items.

Data Collection Procedure

At the intake session, the researcher explained the nature of the investigation ("We are examining the behaviors of couples where the wife believes that she has PMS") and the process of the research (filling out the MDQ and the SOC on a daily basis by both husband and wife). Questions that the couple had were answered at that time.

Couples who were interested in participating in the research were then asked to fill out a demographic sheet and an informed consent form (see Appendix B). Next the couple was asked to sit at a computer terminal to personalize the SOC.

SOC and MDQ forms were given to both the husband and the wife to be completed on a daily basis for the course of one week at a time. Couples were told to complete the forms independently, at the same time each day, and not to discuss their ratings with one another until that week's forms had been mailed in or dropped off. Couples were given an option to either drop off completed forms and pick up new ones or to process the forms by mail. Forms covered one menstrual cycle. Where it was decided to process forms by mail, the couple was given one weeks worth of forms and a self-addressed stamped envelope in which to return the forms at the end of each week. New forms were sent to the couple at the beginning of each week.

Participants were called every other day the first week. These calls provided the researcher the opportunity to answer any questions about the forms and to encourage full participation in the research. For the remaining approximate three weeks, the participants were called twice a week, to check compliance.

Each couple was debriefed at the end of the data

collection phase through the use of an extended semi-structured exit interview. Initially, the husband and the wife were interviewed separately to inquire about their understanding of and their coping mechanisms for the wife's PMS. Each was asked how he or she would describe the impact of PMS on the marital relationship and the impact of the relationship on PMS. Additional questions about their relationship over the month of the charting and their understanding of the purposes of the research were also be covered (see Appendix B). Lastly, the results of the chartings were presented to the couple for discussion. At that time, the researcher identified the type of PMS they were experiencing and suggested ways that the couple might cope with it better. It was at that time that any problems that had arisen, that were in any way related to the research, were discussed.

Data Analysis

The case study method of research was chosen for this study for the reasons elucidated by Yin (1984). That is (1) the events to be studied were contemporary and in a real life context (i.e., behavior and affect in marriage) and (2) they could not be manipulated by the researcher.

An embedded multiple-case design was used (Yin, 1984). The interrelationships, if any, between different measures of the marital relationship (i.e., Pleases, Displeases, and

Marital Satisfaction) and both the husband's and the wife's perceptions of cyclic changes in her negative affect were investigated.

Because every couple is uniquely different, no patterns could have emerged concerning "marriage", or even "PMS", if a single-case design had been used. However, a pooling of the data from all six couples would have resulted in the loss of the complex ways in which spouses interact. Each couple, therefore, had to be analyzed separately and then these summaries conceptualized in the conclusions drawn from the research findings.

While there is a plethora of anecdotal reports on the impact of PMS on marital relationships in the literature, none were found that included any real attempt at measurement of that impact. Therefore, it was essential to combine quantitative with qualitative data if this study was to make a significant contribution to our knowledge of the subject.

A time series analysis, lagged model, was performed on the quantitative data. Time series analysis is a technique which is based on regression for the study of concomitant change in two variables. The lagged model involves relating the current value of the independent variable (negative affect) to its previous day's value and with similar change in the dependent variable (aspect of marital relating).

This correlation was performed to test each hypothesis.

Results were also graphed and inspected visually. Conclusions based on visual inspection were similar to those based on correlations. Therefore, only correlations are presented in the results section.

CHAPTER FOUR

RESULTS

This chapter contains the results of the six case studies. The demographic information about each couple has been used to introduce the case. Next the results of hypotheses tested are presented. Finally, the material discussed at the exit interview is integrated with the hypotheses tested.

Case 1

The couple in this case was composed of a man aged 44 and a woman aged 39, both college educated and both married for the second time. Two children from her previous marriage are with her although one is away at college for the school year. Her current cycle is 22 days long from day one to day one. He works as a consultant; she for a social service agency.

Of the twelve null hypotheses, only one was rejected at a statistically significant level (see Table 2). The results indicate that when the husband perceives that his wife's negative affect has intensified, he perceives his wife's behavior as more displeasing. Regarding the other hypotheses, changes in marital relating were not found to be a function of changes in perceptions of the wife's negative affect.

Table 2

Case 1: Correlations between Changes in Negative Affect and
Changes in Marital Satisfaction

Marital relationship variable	r

Husband's perception of wife's negative affect	
1. Husband's marital satisfaction	0.111
2. Wife's marital satisfaction	-0.253
3. Husband's perception of wife's displeasing behavior	0.732*
4. Wife's perception of husband's displeasing behavior	0.418
5. Husband's perception of wife's pleasing behavior	0.290
6. Wife's perception of husband's pleasing behavior	0.028

Wife's perception of own negative affect	
1. Husband's marital satisfaction	-0.131
2. Wife's marital satisfaction	-0.024
3. Husband's perception of wife's displeasing behavior	0.052
4. Wife's perception of husband's displeasing behavior	-0.394
5. Husband's perception of wife's pleasing behavior	-0.028
6. Wife's perception of husband's pleasing behavior	-0.090

Note. N = 21 days

* $p < .05$

The statistical analysis of the data could be explained by the picture this couple presented during the exit interview. That is, the very low levels of associations found statistically, connecting negative affect with marital relating, were supported by their answers to the exit interview questions. In general, the husband's answers tended to be vague and non-specific. For example, he was unable to define PMS, or describe his wife's patterns, or her worst symptom, with any real clarity. It would be logical to expect that his lack of clarity might explain a lack of sensitivity to the questions on the Menstrual Distress Questionnaire. Similarly, although the wife's answer's tended to be more verbal, direct and articulate, she was also more contradictory about her experiences. She wasn't exactly sure when her PMS was the worst, although she was certain "it was probably a few days before but also maybe a few days after my period." Again, the impression conveyed was that her lack of any medical knowledge about PMS undermined her ability to answer questions meaningfully.

Specifically, the wife seemed to feel that her PMS had become worse over the past year, when her cycle had dropped from 29 days to 22 days. She described her PMS as usually occurring a day or two before she started menstruating. Her worst symptoms involve intense anxiety for a day, as well

as feelings of general restlessness and claustrophobia. She says that she is often "just looking for a fight" either with her daughter or with her husband. She indicated that, as yet, she has no way to cope with or treat her PMS. On the Menstrual Distress Questionnaire, she indicated a wide experience of symptoms. She felt that her PMS had very negative consequences on her marital relationship, that the relationship seemed to make her PMS worse, but that she really felt that other factors including her job were also responsible. In this way she minimized the impact of PMS on her marriage and maximized outside strain for her reasons for her changeable behavior.

In contrast to the wife, the husband was very quiet and his answers to questions had to be actively elicited. On the Menstrual Distress Questionnaire, he reported little awareness of the intense symptoms experienced by his wife. As stated earlier in this section, he indicated that he was not really certain what PMS was or when it might occur in his wife's cycle. His initial response to the researcher's questions was that it happened monthly and that his wife "acted strange". He later expanded his answer to say that she acted erratically for a few days before she started to menstruate but also that she was just as likely to act strangely a few days after.

In support of the statistically significant

hypothesis, however, he agreed with his wife that her main symptom seemed to involve tension or irritability and that she frequently was just looking for a fight. He said that usually he just tries to listen to her when she is upset and "waits for it to blow over." He said that PMS affects their relationship "only when she has it" and that he does not see a way that the relationship affects PMS.

In terms of the month that this couple charted, they indicated that the month was relatively stress-free for them in terms of life events and their relationship. They also felt that her PMS that month had been relatively mild. After seeing the results of the graphed response to the Menstrual Distress Questionnaire, they both agreed that the research was probably going to be helpful as it appeared that the husband and wife were not communicating effectively about her PMS.

To conclude, the integration of the results of the daily data collection and the exit interview, together with the statistical analysis indicates that the low levels of association for eleven of the correlations could be attributed to a lack of common perceptions and understanding on the part of the couple about her experience of PMS. Another possible explanation, not necessarily contradictory, was offered by the couple, namely that the month charted was also a month when her PMS

was mild.

In reference to the specific correlation that was statistically significant, it is possible that the positive correlation is based on a large number of responses indicating no change in both marital satisfaction and negative affect.

Case 2

A full time homemaker and mother of four young children and her husband, an electrical engineer, formed Case 2. Although he was previously married, this is her first marriage and all the children are theirs. Both are in their late thirties. They have been married ten years.

As can be seen from Table 3, statistical significance was found for rejecting null hypotheses one through four. This case was unusual in that so many of the correlations connecting the wife's negative affect with marital relating were statistically significant. It is possible to conclude from the material in the exit interview that, of the six couples in the study, this couple really seemed to have a team-approach to the problem of PMS. In addition, the husband and wife seemed to communicate better than the other wives and husbands. These two factors may explain both the number of significant correlations found and their size.

In describing her pattern of PMS, the wife explained

Table 3

Case 2: Correlations between Changes in Negative Affect and
Changes in Marital Satisfaction

Marital relationship variable	r

Husband's perception of wife's negative affect	
1. Husband's marital satisfaction	-0.936*
2. Wife's marital satisfaction	-0.929*
3. Husband's perception of wife's displeasing behavior	0.804*
4. Wife's perception of husband's displeasing behavior	0.728*
5. Husband's perception of wife's pleasing behavior	-0.292
6. Wife's perception of husband's pleasing behavior	-0.160

Wife's perception of own negative affect	
1. Husband's marital satisfaction	-0.561*
2. Wife's marital satisfaction	-0.692*
3. Husband's perception of wife's displeasing behavior	0.508*
4. Wife's perception of husband's displeasing behavior	0.505*
5. Husband's perception of wife's pleasing behavior	-0.253
6. Wife's perception of husband's pleasing behavior	0.082

Note. N = 28 days

* p < .05

that, about a week to ten days before her menses, she begins to get moody and that things begin to feel overwhelming: "Things I could have coped with just a few days before I can't deal with now. I think of it as a form of depression...the day before I get real nasty, my mood swings to the bottom. The pattern stays fairly consistent from one month to the next." She later said she feels bad because she takes it out on her kids: "I lose my loving tone of voice and get very matter of fact."

She explained that she treats her PMS by eating a little extra, taking Vitamin B₆, and resting if she feels particularly tired. She said that her coping mechanisms consist of easing her schedule so that there is less pressure on her. She continued:

I fix easier meals for my family; I use a natural anti-depressant like shopping...I usually never get a chance to do something for myself, so I will take a bath...I will talk to my husband who listens and then he will take charge and ask me what I have to do and that helps me keep me focused on my priorities.

Sometimes I sit down with a cup of tea... a good cry sometimes help and my husband will occasionally say something critical just to get the tears out.

In terms of the interaction of PMS and the relationship, she said:

Sometimes I feel like I need tenderness. At other times I feel like I need space. It is unpredictable; it still baffles my husband, but he is respectful of my needs for distance. If he needs to take control of things in the house, he doesn't complain, he just does. He is a very caring person. He will arrange for me to get fifteen minutes alone from the kids if that is what I need.

Her husband reported that she has the same symptoms during the PMS time that she has when she is ovulating:

She gets very hungry and eats all the time... then there is her irrational behavior -- she makes bad decisions. She gets defensive; little things that don't mean anything really get to her then. The PMS affects her a lot and she may barely mention them (symptoms) and then be really experiencing them".

When asked about coping, he said:

I put up with it. I have gotten used to it by now. I realized that it happened on a regular basis. It's like I have amnesia from month to month....Humorously he added; "I beat her and we throw dishes -- that helps... actually my wife is neat about it. She will tell me that she is having a bad day and that gets me into the mode of being patient and tolerant.

The husband hoped that the relationship made the PMS

easier for her and that the PMS did not affect the relationship because they both agreed "you can't let this stuff get to you...or it will ruin your marriage."

Both agreed that the month was a relatively stress-free month for them. They had recently evaluated their lives and felt that over-commitment to their church was responsible for their feeling really stressed. As a result, they had withdrawn from many of the church-related commitments and found that the month they charted was much better for them. The wife believed her PMS was more mild than usual, while her husband felt it was about average.

It is interesting to note that, in all the associations that were statistically significant, the correlation for the husband was always larger than the correlation for the wife. The husband's marital satisfaction was found to be related negatively to both his perception of his wife's negative affect and her perception of her own negative affect. This concept seems supported by the couple's comments that she will tell him that she is having a bad day and needs his help. These negative correlations imply that as her negative affect subsides his satisfaction increases; if her symptoms become more intense, his satisfaction decreases. Changes in the wife's marital satisfaction were also found to be related negatively to changes in both her and her husband's

perception of negative affect. Both correlations were negative and imply the same changes described above for the husband's marital satisfaction.

The strong pattern connecting negative affect with marital relating for this couple was evident in displeasing behaviors as well as marital satisfaction. Both spouse's perceptions that the wife's negative affect had become more intense were related to viewing each other's behavior as becoming more displeasing. Perception of each other's pleasing behavior was the only dimension of marital relating that was not connected to negative affect for this couple.

To summarize this case, it is interesting for three reasons: 1) the number of associations linking the wife's negative affect with the marital relationship is the greatest of all the six cases examined; 2) this couple's interaction around the issue: they seem to have the best non-hostile communication about the problem and a real "team-effort" approach to dealing with it (e.g., his taking over the kids for her); and 3) this couple's shared perception of the symptoms and ways to cope with them. A correlation was run relating the husband's and wife's perceptions of negative affect. For this couple, the resulting correlation was significant ($r = .602$ $p < .05$). It is apparent from the statistical analysis that this husband

shares with his wife, a common perception of changes in her negative affect in addition to the effect these symptoms have on their marital relating.

Case 3

This couple, married eight years and the parents of three children, was composed of a husband who is a college-educated financial planner and of a wife who has completed high school and stays home with the children.

In contrast to the preceding couple which also had a high level of agreement about perceived negative affect, this couple ($r = .568$, $p < .05$) had fewer statistically supported connections between the wife's negative affect and marital relating. The results of the statistical analysis of their data can be found in Table 4 which shows the husband's perception of the wife's negative affect was associated with both his marital satisfaction and his perception of his wife's displeasing behavior. No other associations were supported by the daily report data.

When asked to define PMS during the exit interview, the wife responded by saying that it was "a tense feeling, a feeling of anxiety, depression. I yell a lot ...the smallest thing is a catastrophe. Things that usually don't bother me do. Sometimes I get migraines." She reported that the third week is the worst for her, although there can be a few days around ovulation as well. She said that she had

Table 4

Case 3: Correlations between Changes in Negative Affect and
Changes in Marital Satisfaction

Marital relationship variable	r

Husband's perception of wife's negative affect	
1. Husband's marital satisfaction	-0.382*
2. Wife's marital satisfaction	-0.023*
3. Husband's perception of wife's displeasing behavior	0.403*
4. Wife's perception of husband's displeasing behavior	0.259
5. Husband's perception of wife's pleasing behavior	0.054
6. Wife's perception of husband's pleasing behavior	0.073

Wife's perception of own negative affect	
1. Husband's marital satisfaction	-0.312
2. Wife's marital satisfaction	-0.302
3. Husband's perception of wife's displeasing behavior	0.286
4. Wife's perception of husband's displeasing behavior	0.267
5. Husband's perception of wife's pleasing behavior	0.032
6. Wife's perception of husband's pleasing behavior	0.164

Note. N = 31 days

* p < .05

tried treating the PMS by using the over-the-counter medication Premysn but that did not help, so now she is taking nothing. She said that she has food cravings for chocolate and starches but that she works out two or three times a week in order to treat the feelings of anxiety and avoid getting fat.

The wife said that she doesn't cope with it at all. She currently keeps a journal to let her emotions out, and the more she writes the better she feels. She goes back in a week and evaluates what it was that had gotten her so upset. She said: "I try to tell everyone so they will know; I am so impatient".

The wife said that PMS affects their relationship "badly":

I don't like my husband then, I resent his going out to work and leaving me with the three kids. He gets impatient with me and I can't really forget it and I hold it against him. He gets grumpy too, since I set the tone for the house. I don't understand why I can't be in a bad mood just by myself. It isn't fair; they can't survive without me. They all rely on me so I feel suffocated. I need to do something for myself so I lock the door to the bedroom and take a shower with the radio on. I need time to myself.

The husband defined PMS as a "period of crankiness

prior to menstruation." When asked what his wife's pattern was he responded: "I don't know; I have never made any effort to time it. I think it goes from ovulation to her period...There doesn't seem to be any respite." He described his wife's worst symptoms as "physical symptoms ... headaches, nausea, and fatigue. She is cranky, emotional and irritable. The headaches affect me because they interrupt our schedule. It happens so much ... I tried to be helpful but I have become frustrated."

In terms of treating his wife's PMS, he said "I try to be understanding. I suggest that she take something for the headaches. I try to relieve the pressure for her." In terms of coping, he said "I don't cope...I am not a real patient person anyway."

In describing the impact of PMS on the relationship and the relationship on PMS, he said: "It has not been real positive...that and money are the two biggest sources of tension. It is real draining on the relationship. We don't think about separating but it has not been positive."

Both agreed that the month they charted was an average month for them. The husband added that the kids and his wife had been sick with the flu. She reported that her PMS had been mild that month, with only a one-day migraine that was not particularly bad. Both also agreed that the charting had been a positive experience for them because it

gave them a chance to focus on this problem in a more objective way.

Statistical support was found for the connection between the husband's perception of negative affect and his view of the marital relationship. As he perceives his wife's negative affect to grow more intense, he perceives his wife's behavior as more displeasing, while he also becomes more dissatisfied with his marriage. It could well be that this support is a function of the high association between the husband's and wife's perception of changing negative affect. Additionally, this support seems substantiated by the husband's acknowledged lack of patience in dealing with the wife's PMS, combined with the wife acknowledging that she yells a lot. This combination could lead them to have a shared perception of the presence of her symptoms. Unlike the previous couple, however, it is clear from this couple that the communication about her symptoms has an element of hostility to it. It is apparent that he probably becomes aware of her symptoms through behavior that he finds displeasing, like her yelling both at himself and at the children.

To conclude, the results of this case indicate a response to PMS by a couple where the wife's mounting hostility about being depended upon seems to explode when

she is premenstrual. In response, her husband has tried to help out by relieving her of pressure. In this case, however, the solution does not seem to meet the need and the couple continues to experience her PMS as a real source of marital tension.

Case 4

A childless couple married ten years are the subjects of Case 4. Both have completed college, are in their mid-thirties and are in their first marriage. He is employed as an estimator while she works as a graphic artist.

Of the twelve hypotheses tested, only two associations linking negative affect with marital relating reached statistical significance for this couple (see Table 5).

In both cases, it was the husband's view of the relationship that was involved. As the husband perceives the wife's negative affect to become more intense, his satisfaction with the marriage declines. As the wife perceives her own negative affect to intensify, her husband views her behavior as less pleasing.

In the exit interview, the wife defined PMS as "a time of stress both physical and emotional; it's a drag." She defined her pattern as being about two weeks before she menstruates with the week right before menses being the worst. She said that she is "fine for a couple of weeks after and then it starts all over again". Her worst

Table 5

Case 4: Correlations between Changes in Negative Affect and
Changes in Marital Satisfaction

Marital relationship variable	r

Husband's perception of wife's negative affect	
1. Husband's marital satisfaction	-0.427*
2. Wife's marital satisfaction	0.136
3. Husband's perception of wife's displeasing behavior	0.003
4. Wife's perception of husband's displeasing behavior	-0.185
5. Husband's perception of wife's pleasing behavior	-0.071
6. Wife's perception of husband's pleasing behavior	-0.099

Wife's perception of own negative affect	
1. Husband's marital satisfaction	-0.012
2. Wife's marital satisfaction	-0.056
3. Husband's perception of wife's displeasing behavior	0.413*
4. Wife's perception of husband's displeasing behavior	0.285
5. Husband's perception of wife's pleasing behavior	-0.189
6. Wife's perception of husband's pleasing behavior	0.045

Note. N = 27 days

* p < .05

symptoms are water retention, irritability, and feeling depressed some of the time. "Things I could do at any other time, are just too much to handle then".

When she discussed coping mechanisms and treating her PMS, she said that she has cravings for chocolate which she gives into when they come on but that, most of the time, she is very diet conscious. She drinks very little caffeine and has a mostly vegetarian diet. She exercises to deal with the tension and anxiety and tends to sleep more to alleviate the fatigue she feels. One of her primary coping mechanisms is to talk about her PMS. She said:

I talk to my girl friends who all go through it as well. I thought I might have an extreme case but then I talked to them and found out that mine was just like theirs. I nag and bitch a little, which helps me let off steam and then several days later I let them do the same with me. They are real supportive.....Also on my job, the men are real good. We call it "Red Flag Day" and they know to leave any of us alone. It makes it easier to cope when I can be upfront about it. The men in my office try to be very understanding and they sometimes tease us about it after it has passed.

The husband described PMS as "mental and physical influences which create changes in their (women's) bodies

and outlook; there are many different influences, some of which are metabolic, that create the stresses and traumas". He described her pattern as occurring for a week or two before she starts menstruating. Her worst symptoms include rapid changes in mood, cravings for sweets, emotional outbursts, pain (cramps). "It is an emotional rut. She resents being burdened with 'the curse' which snowballs and creates a lack of patience and tolerance on my part; and then it gets worse." He continues:

I try to treat it by buying her Godiva Chocolates, taking her out to dinner, trying to be more sensitive, to be more patient. I massage her back and shoulders, I try not to be antagonistic, I try to help more around the house...I cope with limited success. I try to stay low profile; I try to discount what happens with limited success. If I say 'let's leave it behind' that usually just compounds her anger. She seems to keep dragging out the hatchet and then I usually run out of patience and things blow.

In discussing how PMS affects their relationship, the husband said "25 - 33% of the time our lives are just up in the air; they are unpredictable and unstable and unsatisfying; the oversensitivity to it has me walking on egg shells." On how the relationship affects PMS, he said "over the past year, I have become more understanding of

it. The relationship can make it worse...antagonize it."

The wife agreed that the relationship can make the PMS worse:

Neither of us copes well with it... My husband gets PMS a few days before me and he uses it as an excuse to act like a jerk; and then he uses it against me to point the finger at me. I am impressed that he is a man and that he seems to understand some of what I am going through. And then there are the times that I don't think he makes any effort to cope with it or me. He doesn't have any patience. Sometimes it seems as if he is more concerned with what is going on with him rather than with me. He does and says things that definitely make it worse. I don't think my symptoms are any worse than anyone else's but he makes me feel as if they are.

She believed, however, that the relationship could make the PMS better: "If we could work on it together, if he were more patient, then it would be better."

The wife saw the month they charted as pretty average and low-keyed for her in terms of stress and life-events, as well as her PMS. The relationship was a little better than average with the month being more "low-keyed" (less conflict) than usual. She attributed part of the reduced conflict to the charting which seemed to make both of them

more aware of what was going on in their lives. Her husband basically agreed with her perceptions of the previous month, with the one exception that the month had been especially stressful for him on the job. He agreed that the stress in the relationship and the stress about the PMS had been reduced about 60% from a typical month. He also agreed that the charting had been helpful as it made him more aware of the problem. The results of the daily report data demonstrated that the husband's perception of his wife's negative affect is connected inversely with his marital satisfaction. It seems reasonable that, if this husband is experiencing "anticipatory PMS", it will be his perception of his wife's negative affect that will change as his marital satisfaction changes. The negative correlation implies that as his wife's symptoms increase his satisfaction decreases, and that associated decreases in symptoms are connected with increases in satisfaction. The daily report data also demonstrated that the wife's perception that her negative affect had intensified was associated with her husband's view that her behavior was more displeasing. It also seems apparent that the wife's increased sensitivity to her husband's acting like a "jerk" during the time she was premenstrual would indicate a basis for support for this association. An apparent contradiction seemed obvious in this case between the quantitative data and

the qualitative data. That is, the wife was very verbal about the impact of PMS on the relationship and vice-versa, although the statistical associations are not present. Visual inspection of the data, indicated a possible explanation. During the month charted, the wife's negative affect seemed to fluctuate around the entire cycle in an almost random pattern. There were as many increases as decreases in this case. This pattern, which appeared to have no cyclicity to it, may explain why there were no associations between her negative affect and any of the other research variables.

Case 5

A military attorney, aged 36, and his wife, aged 35, were the couple for Case 5. She stays at home with their children. They have been married about ten years and it is the first marriage for both of them. The wife has a cycle that lasts 32 days from day one to day one. The husband sees the wife as having PMS for about 14 days before she starts menstruating, while the wife sees herself as symptomatic about 10 days before she starts. Since PMS has been an issue for them for many years, they refer to this time as "a visit from Aunt Minnie".

Statistical support was found to reject three of the twelve null hypotheses (see Table 6). The results indicated that when the husband perceives that the wife's

Table 6

Case 5: Correlations between Changes in Negative Affect and
Changes in Marital Satisfaction

Marital relationship variable	r

Husband's perception of wife's negative affect	
1. Husband's marital satisfaction	-0.368*
2. Wife's marital satisfaction	-0.232
3. Husband's perception of wife's displeasing behavior	0.663*
4. Wife's perception of husband's displeasing behavior	-0.379*
5. Husband's perception of wife's pleasing behavior	-0.063
6. Wife's perception of husband's pleasing behavior	0.005

Wife's perception of own negative affect	
1. Husband's marital satisfaction	0.078
2. Wife's marital satisfaction	-0.160
3. Husband's perception of wife's displeasing behavior	-0.208
4. Wife's perception of husband's displeasing behavior	-0.043
5. Husband's perception of wife's pleasing behavior	0.019
6. Wife's perception of husband's pleasing behavior	-0.174

Note. N = 31 days

* p < .05

negative affect has intensified, his marital satisfaction declines; he perceives his wife's behavior as more displeasing and and his wife perceives his behavior as less displeasing.

/ In the exit interview, the wife presented a clear and articulate picture of her PMS. She defined PMS as "a set of symptoms centered around the menstrual cycle that begins about mid-month or 10 days before and may last two to three days into her cycle. My worst syptoms are tension, irritability and very occasionally migraine headache." She said that she may take aspirin for her headaches but does not treat her PMS in any other way since her mother had told her 25 years ago that it was a "woman's lot in life to suffer around her menstruation." In response to how PMS affects the relationship, the wife responded:

a lot...to the detriment. When I am trying to deal with the tension and with the kids, I'd rather that my husband did not come home at times. I would rather not have to deal with him at those times...all my coping goes to the kids.

In response to how the relationship affects PMS the wife believed it did not have much impact but occasionally, when her husband was less tolerant, it did get worse.

Her husband responded that PMS was a new concept to him and more significant than anything he had learned about

women and menstruation. He defined PMS as a kind of malaise with both physical and psychological symptoms that lasted at least 10-14 days before menstruation. In contrast to his wife, he perceived his wife's worst symptom as the pre-menstrual migraines she experienced. He was really concerned about them and also concerned that she would not take anything for them because she had been nursing the children. The husband stated further "she is off her normal sunny disposition and lapses into a valley of depression... not a real depression; it is more like withdrawal."

When he discussed coping, the husband said that he used to try to guess if Aunt Minnie were in town and try to help by taking the kids out of the house some. When asked if there was any way in which he helped to treat her PMS he said "my wife is very much in control of her own person; I have no control over how she will respond to a problem."

Lastly, when asked how PMS affected and is affected by the relationship, he said:

It contributes greatly to the tension we have. It has an adverse effect especially on our sexual relationship; but my wife disagrees and says it doesn't...The relationship has probably not helped the PMS; my wife does not tell me what is bothering her since I am likely to be frustrated by her unwillingness to do anything and she sees me as

unsympathetic...Over the years the PMS has gotten worse...she tries to cope with it herself by making an effort to stay as close to schedule as possible...I do what I can.

The couple agreed that the month charted had been a relatively stressful month for them in terms of making a big financial decision and the results of that decision. This was to buy a home in Washington for the duration of his tour. In addition, the wife's mother had been for a visit for four days and the children had been sick during the month. This latter resulted in two or three sleepless nights for the wife. Neither felt, however, that the experience of PMS that month had been more severe than usual.

One area of stress had been relieved, however, by their participation in the research. That area was the ongoing conflict about PMS. Each believed that the research had indicated what was going on about the PMS in an objective way. The husband stated:

As a result of this study, I am now convinced that she does have PMS. I was not particularly attuned to it before but I have gotten more attuned...I used to argue with her that her period would last a good two weeks of every month. I used to say Aunt Minnie visited for two weeks and we should put a sign out.

She would argue with me and disagree and tell me I was wrong. I would get really frustrated because she wouldn't do anything about it. She said there was nothing to do.

The wife said that "it made her more aware of things" that bothered her, especially things she couldn't share with her husband. She said, for example, that on her forms she truthfully answered that the number of hours he spent at work was displeasing to her but that she couldn't imagine ever telling him "since he would just tune me out". She said that she felt that filling out the forms has validated her idea that she had PMS as she watched the numbers change from week to week.

The material from this interview seems to indicate the following points: (1) The husband is as sensitive, or more sensitive, to the wife's PMS as she is. For example, she did not believe that her migraine headaches were a significant symptom while he did. (2) The wife's coping mechanisms are relatively hard for the husband to detect, because she tries, as closely as possible, to maintain her normal schedule. (3) The wife seems to maintain a fairly independent stance towards the management of her PMS; that is, she is likely to understate the things that bother her, as well as not ask her husband for help, because of the long-suffering attitude she learned from her mother.

From this information it seems possible to conclude that the tendency for the husband's perception of his wife's negative affect to be related to increases in marital tension may be related to his heightened awareness of the presence of "Aunt Minnie" from month to month. In contrast, the wife's perception that the husband's behavior is less displeasing when the husband views her negative affect as more intense may be a result of her accurate perception of her husband's behavior, that is, his awareness of the presence of PMS and his not wanting to do or say things that she will find irritating.

Case 6

The couple in this case, a woman aged 40 and a man aged 35, both married for the second time, were unique to the sample since they spend almost all their time together running their own business. She has three years of college while he has four, and there is one daughter from her previous marriage who is living at home.

From the data they provided, support for three correlations linking negative affect and marital relating was found (see Table 7). The husband's perception that the wife's negative affect had intensified was associated with lower marital satisfaction for both spouses and with the husband's perception that the wife's behavior is less pleasing.

Table 7

Case 6: Correlations between Changes in Negative Affect and
Changes in Marital Satisfaction

Marital relationship variable	r

Husband's perception of wife's negative affect	
1. Husband's marital satisfaction	-0.663*
2. Wife's marital satisfaction	-0.587*
3. Husband's perception of wife's displeasing behavior	0.276
4. Wife's perception of husband's displeasing behavior	0.194
5. Husband's perception of wife's pleasing behavior	-0.565*
6. Wife's perception of husband's pleasing behavior	-0.314

Wife's perception of own negative affect	
1. Husband's marital satisfaction	-0.152
2. Wife's marital satisfaction	-0.005
3. Husband's perception of wife's displeasing behavior	0.093
4. Wife's perception of husband's displeasing behavior	-0.288
5. Husband's perception of wife's pleasing behavior	-0.288
6. Wife's perception of husband's pleasing behavior	0.148

Note. N = 24 days
* p < .05

During the exit interview, the wife described PMS as "irrational, uncontrollable, unexplainable behavior. I didn't count the physical side until I started doing the charting. I mostly focused on the emotional side."

Concerning her pattern, she felt that it varied from month to month in terms of intensity but generally it occurs around ovulation and then two to four days before her menses. Her worst symptom is the uncontrollable rages she feels. These are totally unexplainable to her: "it could be a total stranger that sets me off, or it may be the dog; it is hard to deal with it; you have to be a sane human being and you have these feelings". She does not treat her PMS with anything because she basically believes she already eats a pretty well balanced diet. She copes by easing her schedule:

If I can put things off, I do. Since I work for myself, I am in a situation where I can do that. I also put off doing any complicated projects; where I normally can juggle 15 little details in my head, I find that I can't at these times, so I arrange to do paperwork or something where I don't have to think about anything.

On its effect on the relationship, the wife stated: "I think if we are not aware that that's what is happening then we get into fights. My husband is pretty

understanding when he knows that is what is going on." On the effect of the relationship on PMS, she said: "It makes things worse if things are not going well between ourselves but that usually doesn't happen since we usually make the connection and then we can back off."

When asked to define PMS, he responded by saying that it was a certain set of symptoms that may or may not affect a woman before her period. The set may vary from woman to woman but generally falls into a certain range. He said that "the pattern probably varies from ovary to ovary in any woman; the symptoms vary in intensity depending on which ovary". He perceived his wife's worst symptoms as having two parts: "she is very emotional; she gets irrational and usually has physical symptoms like tender breasts, backaches, being on edge. The intensity is different every month but it is always there at some point."

In terms of treating the PMS, he said he usually tries to massage the parts of her body that don't feel well. "Although her breasts are off-limits unless she says it is O.K." He may suggest that she should take some aspirin. In terms of coping, he said:

I tread very softly; I have found no way to cope with the PMS. If she has PMS and she wants to pick a fight, there is nothing I can do about it. I try not to get

sucked in; I try to be there for her, which is hard because she wants to fight. I try to be light with her; that frequently helps break the pattern. PMS is a powerful force -- it seems to take over women's bodies and their emotions.

The husband said that the PMS puts a strain on the relationship:

It affects both of us especially when we don't know that is what is going on. We may have a big fight and two days later she says it was her PMS and then it clicks in why it went that way. It also affects the sexual relationship because her body is off limits. I feel like I can't touch her.

He thought that the relationship might help with the PMS since he tried to be understanding and light with his wife. "I try to be supportive."

The couple felt that the month they charted was fairly typical for them. Their work schedule was busy but not overly stressful, the relationship was good and her PMS was mild. They believed that doing the charting had been helpful for both of them because it had helped them to see how good things were for them. More specifically, the wife said that doing the charting had helped her to appreciate her husband more. The husband felt that the charting had helped him to really understand what his wife was going

through.

This couple made an interesting impression when they were interviewed at the end of the study -- the husband appeared to be involved more on an emotional level than his wife. Although she talked about terrible rages and being irrational, her manner lacked the vehemence that her husband's descriptions contained. If there is an underlying connection between negative affect and marital relating found in the daily report data and the material this couple presented, it would deal with his intensity and her reserve. In other words, the husband's intensity about the subject, i.e., "it varies ovary to ovary", may account for the supported correlations dealing with his perceptions rather than hers; while her reserve, may indicate an over-intellectual approach with subsequent denial of symptoms which might explain the lack of associations for her data.

To conclude, as in other cases presented so far, the husband's perception of his wife's negative affect has become an important variable to consider in understanding the relationship between PMS and the interactions of a couple.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

The purpose of this study was to examine the relationship between PMS and marital relating. It was hypothesized that marital relating (pleasing behavior, displeasing behavior and marital satisfaction) would change over the course of the menstrual cycle, when either a woman or her husband believed she had PMS. Since it was believed that the physical symptoms of PMS would not affect the marital relationship as much as the psychological symptoms, a decision was made to focus on the psychological ones.

In the sections that follow, each of the individual variables will be summarized and discussed, integrating both quantitative and the qualitative data. Conclusions will be drawn about the major purposes of this study.

PMS

All of the couples stated that PMS was a monthly phenomenon that each wife experienced, with varying degrees of intensity and with varying symptoms. It also seemed that the symptoms each wife experienced were idiosyncratic to her and varied in intensity from month to month. Although it is well established in the literature on PMS that there should be a symptom-free time, in the anecdotal reports of the couples, none mentioned it. There is the distinct impression, however, that the couples do see PMS as an on/off, episodic experience in their lives.

In terms of the symptoms themselves, Moos (1985) indicates that the two clusters of symptoms most involved in PMS are water retention and negative affect. This investigation dealt with the affective cluster exclusively. In response to the specific symptoms listed in the negative affect cluster (loneliness, anxiety, mood swings, crying, irritability, tension, feeling sad or blue, and restlessness) the couples identified anxiety, mood swings, irritability, and/or tension over and over again as the primary affect experienced. Although depression was mentioned by some couples, it was clearly seen as different from true clinical depression. In addition, there were two couples where the wives regularly experienced migraine headaches. Since headache is a symptom within the pain cluster, its impact on the marital relationship was not assessed.

It is also clear from the exit interviews that, although the negative affect cluster is important, water retention symptoms also affected the marital relationships of the couples in a way not predicted. Two of the couples specifically mentioned the negative impact of painful, swollen breasts on their sexual relationships. In one case, the husband specifically commented that his wife's body was off limits to him during this time, while in the other, the husband associated his wife's general lack of

interest in sex to this problem. Interestingly, none of the six husbands indicated a lack of interest in being sexual with their wives as a result of the tension or hostility that was expressed toward them. Neither did the women specifically comment on a lack of interest due to feeling tense or irritable.

The contribution of sexual dissatisfaction to marital dissatisfaction was not examined directly in this study. A recommendation for future research in this area might include examining the frequencies of sexual encounters over the course of several cycles to see if there are premenstrual changes in frequency and, if so, whether they contribute to a change in marital satisfaction.

One more point needs to be made in regards to symptoms in general and to negative affect in particular. An original purpose of this research was to examine how the spouse responded to the presence of PMS in the relationship. In order to participate, both partners had to agree that the wife had PMS. It was assumed that this shared belief would be based on observations of the wife's behavior. This assumption remained untested until the data analysis phase, when the results of the time series analysis were being examined. At that time, when the correlation between the husband's and the wife's perception of her negative affect was run, the association was found

to be statistically significant in only 2 of the 6 cases. This lack of association, seems to imply that both the husband and wife have their own perception of her negative affect and that, in most cases, the husband's perception is based on something over and above the behavior of his spouse.

It is interesting to speculate on the differences in the husband's and the wife's perceptions of her negative affect. It might be concluded, based on the qualitative data, that the husband's perception of his wife's negative affect also includes his beliefs about PMS and his conclusions about its impact on the relationship. For example, when the husband believes that PMS has a more negative impact on the relationship than his wife does, that belief might result in his perception of her negative affect as being more intense than hers. Alternatively, when the husband is unclear about what PMS is and how it affects his wife, that might also lead to a lack of shared perception. Whether the husband under-perceives or over-perceives, the couples lack a significant shared perception. When the husbands and wives seem to share a perception, they see the syndrome and ways to cope with it in similar ways. For example in one case, the couple agree with each other about what it is and how to cope with it. In Case 3, both husband and wife are bewildered about

what they can do to get her PMS under control and manageable.

To conclude, the couples in this study reinforced the conceptual understanding of PMS in the following manner:

(1) They anecdotally reported timing patterns similar to those reported in the literature, even though they did not specifically comment on a symptom-time free time. They did, however, describe it as an on/off phenomenon.

(2) They did endorse the more common descriptors of PMS: tension, irritability, anxiety, and mood swings.

(3) Other symptoms beside negative affect influence the relationship. Couples indicated that migraine headaches were disrupting to the daily routine, while water retention and swollen breasts had an impact on their sexual relationships.

(4) The husband's and the wife's perception of her negative affect tend to be discrepant.

Pleasing Behaviors

In examining the variables that contribute to marital satisfaction, it is expedient to start with pleasing behaviors. From the literature review, it was established that pleasing behaviors, in combination with displeasing behaviors, helped to discriminate distressed couples from non-distressed couples.

In this research, only one correlation connecting the wife's negative affect with pleasing behaviors was statistically significant. In that one case, as the husband's perception of his wife's negative affect increased, his perception of her pleasing behaviors decreased. In general then, across couples, the daily report data demonstrated that there was no association between the wife's negative affect and either spouse's frequency of pleasing behaviors.

The lack of associations seem to be consistent with previous research findings which indicate that the presence of pleasing behaviors alone does not significantly contribute to the concept of marital satisfaction (Wills, Weiss & Patterson, 1974).

The lack of associations seem inconsistent with the qualitative data collected in the exit interviews, however. It was obvious that each husband tried to cope by doing something for his wife, e.g. buying chocolates, giving a massage, picking up the slack around the house. In two cases, this attempt to be more helpful was noticed and appreciated. In three of the remaining cases, the attempts were met with responses that varied from indifference to hostility. These contradictory findings may explain some of the confusion that husbands experience about PMS and its management-- what seems like an obvious and common sense

solution, i.e. doing something, seems to have no apparent impact. The husbands feel "damned if they do and damned if they don't". Clinically, the findings imply that counseling husbands to avoid doing things that are displeasing, rather than doing special things for their wives, might be helpful.

From the wives' perspectives, with the exception of the two cases mentioned above, no information from the exit interviews threw additional light on the role of pleasing behaviors. Perhaps this lack is due to the fact that many of the women describe themselves as putting all their energies into just coping and making it through this time. For them, it means getting the basics done, rather than doing especially pleasing things for their spouses.

Finally, these conclusions may be a function of a limitation of the instrument. In a study such as this one, the magnitude of impact of a pleasing or displeasing behavior was not assessed, merely its presence or frequency. Although it was originally assumed that presence or frequency would be an adequate measure, it became obvious from the exit interviews, that frequency of displeasing behaviors was neither an adequate nor sensitive enough measure. For some of the couples, a change in the frequency of one displeasure, might result in a change in marital satisfaction by as many as three points.

To conclude this section on pleasing behaviors and negative affect it may be said that:

(1) With one exception, no statistically significant associations were found between pleasing behaviors and negative affect. This findings appear to be consistent with previous research findings.

(2) A problem exists for husbands of wives with PMS who want to help the wives cope by doing extra, nice things for them . The wives will probably not register them as attempts at coping and may even respond with hostility.

(3) A flaw in the Spouse Observation Checklist limited the analysis of the quantitative data, since the impact of pleasing behaviors could not accurately be measured.

Displeasing Behaviors

The role of displeasing behaviors has been established as contributing more to the daily marital satisfaction rating than pleasing behaviors alone (Wills, Weiss, & Patterson, 1974; Birchler, Weiss & Vincent, 1975). It was expected then, that data would support an association between negative affect and displeasing behaviors. Interestingly, of the possible 24 correlations that reflected such an association, only nine were supported in four cases. Of particular interest however, is that the one

association which was supported in all four cases dealt with the husband's perception of increasing displeasing behaviors as the wife's symptoms increased and decreasing displeases as her symptoms decreased.

Of the remaining associations that were supported, no clear patterns were obvious. Two indicated that husband's perception of displeasing behaviors by his wife was related to changes in her perception of negative affective symptoms. Two others supported the notion that the awareness of the wife's displeasing behaviors by the husband were associated with the changes in her awareness of negative affect in herself. One case positively correlated changes in the wife's perception of her own negative affect with her perception of her husband's displeasing behaviors.

Although it was expected that the data would support an association between negative affect and displeasing behavior, consistent with previous research, no such conclusion can be drawn. The mixed results may imply, however, that some type of weak but consistent correlation exists, even though its exact nature can not be known from this sample alone.

In general, what can be concluded from the case studies that is consistent with the theory of displeasing behaviors and marital satisfaction? Integrating the

material from the exit interviews with the quantitative data, it is possible to conclude that negative behaviors do seem to have more of an impact than pleasing behaviors on the interactions of couples. Exactly why they do is unclear. It may be related to the wives' perception that they are using all their coping mechanisms just to get through these times and that a displeasure, recorded by her husband, reflects both her increased feelings of tension and her lack of ability to cope. A consistent theme with the wives was that, when their symptoms were more active, they could not cope with things they could have coped with a week earlier. Virtually every couple, across the sample, illustrated that a link existed for them between behavior of the spouse and marital tension. Over and over again, the wives commented on how their husbands' behavior became more irritating as their symptoms became more intense. All the husbands agreed that their wives became more emotional or irritable as their PMS became more active.

As was mentioned previously, a limitation of the Spouse Observation Checklist is that the magnitude of displeasing behaviors is not assessed, only indicated as occurring. This limitation may have contributed to the lack of statistically significant correlations.

This section on negative affect and displeasing behaviors can be summarized as follows:

(1) An association was found between increase in the wife's symptoms and increase in her displeasing behavior as perceived by her spouse. While no wife admitted to increasing her displeasing behaviors, all admitted to increased feeling of irritability and tension. These probably resulted in the increased displeasing behavior.

(2) From the qualitative data collected, it was apparent that the wives and husband's saw more of an impact on the relationship of displeasing behaviors than of pleasing ones. This finding is consistent with previous research.

Marital Satisfaction

Based on the instruments used, marital satisfaction is the daily rating provided by the couple. Hypotheses one and two dealt with the concept that the husband's and wife's marital satisfaction would change as perceptions about her negative affect changed. Of the 24 correlations in the six cases, 9 were found to be statistically significant.

Strongest support was found for the connection between change in the husband's marital satisfaction and change in his perception of his wife's negative affect. A negative association was found in 5 of the 6 couples.

In Case 2, all combinations of the connections between changes in negative affect and changes in spouse's marital

satisfaction had statistically significant correlations. This couple was novel in its highly interdependent perceptions. Each spouse's perception that the wife's negative affect had intensified was connected to a decline in his or her own marital satisfaction, as well as in the other spouse's marital satisfaction. In one other couple, the husband's perception of increased negative affect was associated with a decline in the wife's marital satisfaction. Across couples, however, only the inverse relationship between the husband's perception of the wife's negative affect and his marital satisfaction seemed to prevail.

It appears that the husband's perception of marital satisfaction is subject to change over the course of the menstrual cycle. It also appears that this change is tied to his perceptions of his wife's symptoms which are not necessarily correlated to her perceptions of her symptoms. This may imply that the husband's marital satisfaction may change as a result of his anticipating his wife's PMS. This anticipation may result in a self-fulfilling prophecy in regards to his marital interactions and consequently his marital satisfaction. For example, in the case of "Aunt Minnie", the couple has a clearly identified persona who represents the negative side of the wife's PMS. The husband stated that he used to try to guess if Aunt Minnie were in

town, implying that when she arrived, life changed in a negative sense for him. Again, in another case, the wife referred to the husband anticipating her PMS and "acting like a jerk....and blaming it on her PMS". Again implying that the nature of the marital interactions changed at that time because of the husband's perception.

The findings in the area of marital satisfaction are intriguing. With change occurring in the husband, it seems reasonable to expect like changes to be occurring in the wife. It would also seem reasonable to expect that, since it is the wife who is experiencing the symptoms of PMS, it would be her marital satisfaction that would change over time, along with her negative affect. The daily report data demonstrated that this was not the case.

The results remain complex when one tries to integrate the material from the exit interviews. Most of the wives said their PMS had a negative impact on the relationship. This impression, however, does not seem to have been translated to the daily marital satisfaction ratings that the wives completed. One possible explanation for the lack of association may come from the wife's familiarity with her own body. Unlike her husband, who is unused to experiencing monthly changes that begin in puberty and continue to the early 50s, the wife could assume such changes and takes them for granted. It is possible then,

that she does not make a connection between these monthly changes and her marital satisfaction. Her relationship rating, then, may be affected by the use of denial that anything has changed from the day before in her perception.

To summarize this section on marital satisfaction, it may be concluded that:

(1) An association between decreased marital satisfaction for the husband and an increased perception of his wife's negative affect was found for 5 of the 6 cases.

(2) Husbands may anticipate the arrival of the wife's PMS and experience a self-fulfilling prophecy that this time of the month is going to be unpleasant.

(3) The wife's marital satisfaction does not seem to respond to quantitative measurement. This lack of sensitivity may be the result of her acceptance of changes within her body which would have led to a lack of association with changes in her relationship.

(4) The wife's marital satisfaction does seem to respond to qualitative measurement with many of the wives indicating that their marital relationships change for the worse at this time.

PMS and Marital Relating

To conclude this section, similarities and differences between and among couples will be explored, and

agreement with other authors in the self-help area of PMS will be summarized. A review of the major findings will also be presented.

Similarities between wives involved a commonality in describing their experience of PMS as a syndrome that involves feelings of irritability, tension, anger, and other symptoms such as migraine headache or water retention. All the wives experienced PMS as an unpleasant disruption of the lives.

Similarities for the husbands included feelings of bewilderment, frustration and impotence at the syndrome. Husbands were confused about the changes PMS could wreak on their relationships; it was hard for them to understand how their wives could change so dramatically from one week to another, yet they also accepted the reality of their experience that she did. Almost universally, the husbands also felt frustrated that someone they cared about should have to experience these changes and impotent that neither spouse had the ability to alleviate the distress.

Differences among the wives' attitudes towards PMS, were apparent in the exit interviews. Although no mention has been made in the literature, a parallel seemed to exist between the woman's attitude towards menstruation and her attitude towards PMS. Most commonly, the woman's attitude was characterized by acceptance. Acceptance was based on a

variety of ideas and ranged from the idea that menstruation is something women have to suffer through, to acceptance that it was unpleasant but could be coped with. Most of the women in the sample held the latter attitude.

Interestingly, there was also an attitude on the part of one woman of being a victim of PMS. This victimization role, although not frequently seen in this sample may be more common in the clinical population.

It was obvious from the exit interview material, that the wife's attitude transmitted itself to her husband and was partially responsible for the impact PMS would have on the relationship and the relationship on PMS. Differences could be seen, for example in Case 2, where the wife accepted PMS as a monthly occurrence that she could handle and the wife in Case 4 who felt victimized by PMS.

Differences in husbands also dealt with attitudes and beliefs. Husbands varied in thinking that PMS was something that their wives could control if they wanted, to believing that PMS was out of their control and needed to be accepted as such. These different attitudes were also conveyed to their wives and were partially responsible for the impact PMS had on the relationship and vice-versa.

Perceived similarities and differences among the couples are based on common responses to the problem expressed in the qualitative data. What follows are

conceptualizations about three types of responses by the couples which illustrate both their similarities and their differences; obviously, there are overlaps among the three styles.

One response to the problem of PMS was for both partners to accept its existence and effects on themselves and the relationship. For this type of couple, there was a lack of hostility around the problem and a consequent ability to communicate effectively about ways to problem solve and to cope with it. These couples were characterized by the husband's willingness to pitch in and take up the "slack" and by a joint response that they were not going to let PMS "beat them". These couples also use humor to help themselves through the situation and did not seem to keep track of one month's experiences to the next.

In contrast were the couples who could be characterized as having similarities based on their hostility to the problem. These couples were not able to use humor about the situation. Each partner was attempting to cope on his/her own with the problem, rather than pooling resources to solve the problem. In general, the husband had a belief that the wife could control her PMS and wives believed that their husband's would not ever be able to understand what they were experiencing. Husbands in this group also felt that they were victims of abuse

abuse by their wives, while the wives believed that their husbands were not supportive.

The last type of similarity seen was in the couple where the husband was confused about PMS, what it was exactly, what caused it, how to best handle it, etc. In this couple, the husband was unlikely to have read anything about PMS or to have talked with anyone about the problem. The wife was likely to feel alone and desperate for the husband to believe that she had PMS; that it needed to be handled as a joint problem. Humor about the situation was lacking. The husband seemed willing to do anything to help if he only knew what, while the wife seemed unable to define clearly what would help.

In reviewing the works of Norris (1983), Lever and Brush (1981) and Laurensen and Stukane (1983), many similarities were found between their work and the findings of this research. Among the similarities were the husbands' and wives' descriptions of PMS symptoms and their stories about the way it affects their relationships. Many of the individual vignettes contained in their works, could have been interchanged with ones in this paper. A previously unrecognized similarity were references by the other authors to the impact of PMS on the sexual relationships of their clients. Clear differences existed between this research and the self-help works cited above.

The first and primary one was the active involvement of the husband in the assessment process. Unlike other approaches where only the woman charted her symptoms and was seen as the patient, in this study the identified patient was the relationship. In viewing the relationship as the research unit, the husband's participation became mandatory since it was believed that the data collection would be incomplete without it. A second difference was the use of quantifiable data on which to base the conclusions of the research. Another important contribution was the examination of the effect of the relationship on PMS and not just PMS on the relationship. Additionally, there was the focus on identifying types of responses by the couples.

To conclude, a within couple system was theorized. The husband's and wife's beliefs about PMS, together with that month's experience, would affect their marital relating (pleasing and displeasing behavior and marital satisfaction). Their marital relating would affect their experience of PMS in terms of the intensity of the symptoms. The previous month's experience of PMS would be integrated into the current month's marital relating and the previous month's marital relating into the current month's experience of PMS.

Major findings from the qualitative data indicated similarities across couples and seemed to suggest validity

of the theory. Quantitative data, in general, did not support the idea that the wife's marital relating (perception of pleasing and displeasing behaviors by her husband) was affected by PMS. Neither did it support the idea that her marital satisfaction fluctuated with her perception of her symptoms. Quantitative data on the other hand, did indicate support for the idea that changes in the husband's perception of negative affect in his wife did result in changes in his perception of marital satisfaction. As he perceived her symptoms as increasing, his marital satisfaction decreased. In addition, an association was found between his perception of intensified symptoms and displeasing behavior by his wife.

REFERENCES

- Abraham, G. E. (1981). "Premenstrual Tension". In Current problems in Obstetrics and Gynecology (pp. 11-39). Chicago: Year Book Medical Publishers.
- Abraham, G. E. (1980). The premenstrual tension syndrome. In L. K. McNull (Ed), Contemporary Obstetrics and Gynecologic Nursing (Vol. 3, pp. 170-184). St. Louis: C. V. Mosby Co.
- Achenbach, T. M. (1978). Research in developmental psychology: Concepts, strategies, methods. New York: The Free Press.
- Atkinson, B. J. & McKenzie, P. N., (1984) The personalized spouse observation checklist: A computer generated assessment of marital interaction. Journal of Marital and Family Therapy, 10, 427-429.
- Backstrom, T., & Cartensen, H. (1974). Estrogen and progesterone in plasma in relation to premenstrual tension. Journal of Steroid Biochemistry, 5, 257-260.
- Benedek, T., & Rubenstein, B. B. (1939). The correlations between ovarian activity and psychodynamic processes. Part 2 (The menstrual phase). Psychosomatic Medicine, 1, 461 - 485.

- Bertoli, A., De Pirro, R., Fusco, A., Greco, A., Magnatta, R. & Lauro, R. (1980). Differences in insulin receptors between men and menstruating women and influence of sex hormones on insulin binding during the menstrual cycle. Journal of Clinical Endocrinology and Metabolism, 50, 246-255.
- Birchler, G. R., & Webb, L. G. (1977). Discriminating interaction behavior in happy and unhappy marriages. Journal of Consulting and Clinical Psychology, 45(3), 494-495.
- Birchler, G. R., Weiss, R. L., & Vincent, J. P. (1975). Multimethod analysis of social reinforcement exchange between maritally distressed and nondistressed spouse and stranger dyads. Journal of Personality and Social Psychology, 31, 349-360.
- Biskind, M. S. (1943). Nutritional deficiency in the etiology of menorrhagia, metrorrhagia, cystic mastitis, and premenstrual tension: treatment with vitamin B complex. Journal of Clinical Endocrinology and Metabolism, 3, 227-234.
- Biskind, M. S., & Biskind, G. R. (1943). Inactivation of testosterone propionate in the liver during vitamin B complex deficiency. Alteration of Estrogen-androgen equilibrium. Endocrinology, 32, 97.

Blank, A., Goldstein, S. E., & Chatterjee, N. (1980).

Premenstrual tension and mood change. Canadian Journal of Psychiatry, 25(7), 577-585.

Clare, A. W. (1979). The treatment of premenstrual symptoms. British Journal of Psychiatry, 135, 576-579.

Clare, A. W. (1981). Letter to the Editor. British Journal of Psychiatry, 138, 82-83.

Clare, A. W. (1983). The relationship between psychopathology and the menstrual cycle. Women and Health, 8, 125-136.

Clare, A. W., & Cairns, V. E. (1978). Design, development and use of standardised interview to assess social maladjustment and dysfunction in community studies. Psychological Medicine, 8, 589-604.

Coppen, A., & Kessel, N. (1963). Menstruation and personality. British Journal of Psychiatry, 109, 711-721.

Cullberg, J. (1972). Mood changes and menstrual symptoms with different gestagen-estrogen combinations. Acta Psychiatrica Scandinavia, Supp. 236, 1-86.

Dalton, K. (1964). The premenstrual syndrome. Springfield, IL: C. C. Thomas.

Dalton, K. (1977). The premenstrual syndrome and progesterone therapy. Chicago: Year Book Medical Publishers, Inc.

- Dennerstein, L., & Burrows, G. D. (1979). Affect and the menstrual cycle. Journal of Affective Disorders, 1, 77-92.
- Depiero, R., Fusco, A., Bertoli, A., Greco, A. V. & Lauro, R. (1980). Insulin receptors during the menstrual cycle in normal women. Journal of Clinical Endocrinology, 51, 503.
- Deutsch, H. (1944). The psychology of women. New York: Grune & Stratton.
- De Wees, W. P. (1840). A treatise on the diseases of females. Philadelphia: Lee and Blanchard.
- Englander-Golden, P., Willis, K. A. & Dienstbier, R. A. (1977). Stability of perceived tension as a function of the menstrual cycle. Journal of Human Stress, 3, 14-17.
- Frank, R. T. (1931). The hormonal causes of premenstrual tension. Archives of Neurology and Psychiatry, 26, 1053-1057.
- Goldberg, D. P., Cooper, B., Eastwood, M. R., Kedward, H. B., & Shepherd, M. (1970). A standardised psychiatric interview for use in community services. British Journal of Preventive and Social Medicine, 24, 18-23.
- Golub, S. (1976). The magnitude of premenstrual anxiety and depression. Psychosomatic Medicine, 38, 4-12.

- Gorney, R., Janowsky, D.S., & Kelley, B. (1966). The curse -- vicissitudes and variations of the female fertility cycle: Part II. Evolutionary aspects. Psychosomatics, 7, 283-287.
- Greene, R. & Dalton, K. (1953). The premenstrual syndrome. British Medical Journal, 1, 1007-1014.
- Halbreich, U., Ben-David, M., Assael, M. & Bornstein, R. (1976). Serum prolactin in women with premenstrual syndrome. Lancet, 2, 654.
- Haley, J. (1980). Leaving home: The therapy of disturbed young people. New York: McGraw Hill Book Company.
- Hamilton, J. A., Parry, B. L., Alagna, S., Blumenthal, S. & Herz, E. (1984). Premenstrual Mood Changes: A guide to evaluation and treatment. Psychiatric Annals, 14, 426-436.
- Harris, S. (1944). Hyperinsulinism. South Medical Journal, 37, 714-717.
- Harrison, M. (1982). Self-help for premenstrual syndrome. Cambridge: Matrix Press.
- Haskel, R. F., Steiner, M., Osmun, J.N. & Carroll, B.S. (1980). Severe premenstrual tension: Delineation of the syndrome. Biological Psychiatry, 15(1), 121-139.
- Henson, N. (1984). The selling of PMS. Science Magazine, 5, 67-71.

- Hopson, J., & Rosenfeld, A. (1984). PMS: Puzzling monthly symptoms. Psychology Today, 18, 30-35.
- Ivey, M. E. & Bardwick, J. M. (1968). Patterns of affective fluctuation in the menstrual cycle. Psychosomatic Medicine, 30, 336-345.
- Jacobson, N. S., & Margolin, G. (1979). Marital therapy: Strategies based on social learning and behavior exchange principles. New York: Brunner/Mazel.
- Jaszmann-Benedex, L. J. & Sturtevant-Hearn, M. D. (1976). Premenstrual tension and functional infertility. Lancet, 1, 1095-1098.
- Kerr, G. O. (1977). The management of premenstrual syndrome. Current Medical Research Opinion, 4, 29-34.
- Lauersen, N. H., & Stukane, E. (1983). Premenstrual syndrome and you. New York: Simon & Schuster.
- Lever, J., & Brush, M. G. (1981). Premenstrual tension. New York: Mc Graw-Hill Book Company.
- Lewis, R. A., & Spanier, G. B. (1981). Theorizing about the quality and stability of marriage. In W. R. Burr, R. Hill, F. I. Nye & I. L. Reiss (Eds), Contemporary Theories About the Family (Vol. 1, pp. 268-294). New York: The Free Press.

- Locke, H.J., & Wallace, K. M. (1959). Short marital adjustment and prediction tests: their reliability and validity. Marriage and Family Living, 21, 251-255.
- Margolin, G. (1981a). Behavior exchange in happy and unhappy marriages. A family cycle perspective. Behavior Therapy, 12, 329-343.
- Margolin, G. (1981b). Practical application of behavioral marital assessment. In E. E. Filsinger, Robert A. Lewis, & Philip Mc Avoy (Eds.), Assessing marriage: New behavioral approaches (pp. 90-109). Beverley Hills: Sage Publications.
- May, R. R. (1976). Mood shifts and the menstrual cycle. Journal of Psychosomatic Research, 20, 125-130.
- Minuchin, S., & Fishman, H. (1981). Family therapy techniques. Cambridge: Harvard University Press.
- Moos, R. H. (1969). A typology of menstrual cycle symptoms. American Journal of Obstetrics and Gynecology, 103, 390-402.
- Moos, R. H. (1985). Menstrual distress questionnaire Manual (rev. ed.). Social Ecology Laboratory, Stanford University, Stanford, and the Veterans Administration Hospital. Palo Alto, CA.
- Morriss, G. M., & Keverne, E. B. (1974). Premenstrual tension. Lancet, 2, 1317-1318.

- Morton, J. H. (1950). Premenstrual tension. American Journal of Obstetrics and Gynecology, 60, 343-352.
- Norris, R. V., & Sullivan, C. (1983). PMS/premenstrual syndrome New York: Rawson Associates.
- Osborn, M. (1981). Physical and psychological determinants of premenstrual tension: Research issues and a proposed methodology. Journal of Psychosomatic Research, 25, 363-367.
- Ostrom, C. W. (1978) Time series analysis: Regression techniques. Beverley Hills, CA: Sage Publications.
- Patterson, G. R., Hops, H. & Weiss, R. L. (1975). Interpersonal skills training for couples in early stages of conflict. Journal of Marriage and the Family, 37, 295-302.
- Premenstrual Syndrome: It is all in her head. (1983, April). Sexual Medicine Today, 7, 6-12.
- Rausch, J. L., & Janowsky, D. S. (1982). Premenstrual tension: Etiology. In R. C. Friedman (Ed.), Behavior and the menstrual cycle (pp. 397-427). New York: Marcel Dekker.
- Rees, L. (1953). Psychosomatic aspects of the premenstrual tension syndrome. Journal of Mental Science, 99, 62-73.

- Reid, R. L., & Yen, S. S. C. (1981). Premenstrual syndrome. American Journal of Obstetrics and Gynecology, 139, 85-104.
- Rosseinsky, D. R., & Hall, P. G. (1974). An evolutionary theory of premenstrual tension. Lancet, 2, 1024.
- Rubinow, D. R., & Roy-Byrne, P. (1984). Premenstrual Syndromes: Overview from a methodological perspective. American Journal of Psychiatry, 141, 163-172.
- Sampson, G. A. (1979). Premenstrual Syndrome: A double-blind controlled trial of progesterone and placebo. British Journal of Psychiatry, 135, 209-215.
- Sampson, G. A., & Prescott, P. (1981). The assessment of the symptoms of premenstrual syndrome and their response to therapy. British Journal of Psychiatry, 138, 399-405.
- Shainess, N. (1961). A re-evaluation of some aspects of femininity through a study of menstruation -- A preliminary report. Comprehensive Psychiatry, 2, 20-26.
- Sharma, V. (1982). Premenstrual syndrome. Practitioner, 226, 1091-1098.
- Silbergeld, S., Brast, N. & Noble, E. (1971). The menstrual cycle: A double-blind study of symptoms, mood and behavior, and biochemical variables using Enovid and placebo. Psychosomatic Medicine, 33, 411-428.

- Smith, S. (1975). Mood and the menstrual cycle. In E. J. Sacher (Ed.), Topics in Psychoendocrinology (pp. 19 - 58). New York: Grune and Stratton.
- Steiner, M., & Carroll, B. J. (1977). The psychobiology of premenstrual dysphoria: Review of theories and treatments. Psychoneuroendocrinology, 2, 321 - 335.
- Steiner, M., Hasket, R. F., & Carroll, B. J. (1980). Premenstrual tension syndrome: The development of research diagnostic criteria and new rating scales. Acta Psychiatrica Scandinavia 62, 177 - 180.
- Stokes, J. & Endels, J. (1972). Pyridoxine and premenstrual tension. Lancet, 1, 1177-1178.
- Stroebe, C.F. (1982). The quieting reflex. New York: Berkley Books.
- Sutherland, H. & Stewart, I. (1965). A critical analysis of the premenstrual syndrome. Lancet, 1, 1180 - 1183.
- Taylor, J. W. (1979a). Plasma, progesterone, estradiol 17beta and premenstrual symptoms. Acta Psychiatrica Scandinavia, 60, 76 -86.
- Taylor, J. W. (1979b). Psychological factors in the etiology of pre-menstrual symptoms. Australian and New Zealand Journal of Psychiatry, 13, 35-41.
- Watts, S., Dennerstein, L. & De L Horne, D. J. (1980). The premenstrual syndrome. Journal of Affective Disorders, 2, 257 -266.

- Weiss, R. (1981). The new kid on the block: Behavioral systems approach. In E. E. Filsinger, Robert A. Lewis & Philip Mc Avoy (Eds.), Assessing marriage: New behavioral approaches. Beverley Hills: Sage Publications.
- Weiss, R. L., Hops, H. & Patterson, G. R. (1973). A framework for conceptualizing marital conflict: A technology for altering it, some data for evaluating it. In L. D. Handy & E. L. Marsh (Eds.) Behavior change: Methodology, concepts and practice (pp 309 - 342). Champagne, IL: Research Press.
- Weiss, R. L. (1978). The conceptualization of marriage from a behavioral perspective. In Thomas J. Paolini and Barbara Mc Crady (Eds.). Marriage and marital therapy: Psychoanalytic, behavioral and systems theory perspectives (pp.165-2400. New York: Brunner/Mazel.
- Weiss, R. L., & Isaac, J. (1976, April). Behavioral vs. cognitive measures as predictors of marital satisfaction. Paper presented at the meeting of the Western Psychological Association, Los Angeles, CA.
- Wendestam, C. (1980). Mental changes in the premenstrual phases. Goteburg: Universtiy of Goteburg, Lillhagen's Hospital.

- Wilcoxon, L. A., Schrader, S. L., & Sherif, C. W. (1976).
Daily self-reports an activities, life-events, moods
and somatic changes during the menstrual cycle.
Psychosomatic Medicine, 38, 399 - 417.
- Wills, T. A., Weiss, R. L., & Patterson, Q. R. (1974). A
behavioral analysis of the determinants of marital
satisfaction. Journal of Consulting and Clinical
Psychology, 42, 802 - 811.
- Winston, F. (1969). Oral contraceptives and depression.
Lancet, 1, 1209.
- Yin, R. K. (1984). Case study research; Design and
methods. Beverly Hills, CA: Sage Publications.
- Zimmerman, E., & Parlee, M. B. (1973). Behavioral changes
associated with the menstrual cycle: An experimental
investigation. Journal of Applied Social Psychology, 3
(4), 335 - 344.
- Zondek, B. & Bromberg, Y. M. (1945). Endocrine allergy.
Journal of Allergy and Clinical Immunology, 16, 1-16.
- Zondek, B. & Bromberg, Y. M. (1947). Clinical reactions of
allergy to endogenous hormones and their treatment.
British Journal of Obstetrics and Gynaecology, 54,
1-19.

APPENDICES

•

APPENDIX A
Proposed Etiologies

PROPOSED ETIOLOGIES

What is the cause of PMS?

In addition to terminology, the etiology of PMS is unclear. Before reviewing the many proposed etiologies, it is necessary to explore the problems and ramifications of having unclear etiology.

In the medical world, understanding the cause of an illness leads to the development of treatment. Hence, an understanding of etiology is always important. In the case of PMS this is problematic. Rubinow and Roy-Byrne (1984) have compiled a list of no less than 17 of the most common etiologies associated with PMS (Table 2). Part of the problem according to many of the researchers in the field (Rees, 1953; Rubinow & Roy-Byrne, 1984; Smith, 1975; Steiner & Carroll, 1977) is an attempt to attribute a single etiology to a cluster of symptoms that has both psychological and physiological manifestations. In the subsequent review, then, it is important to realize that the "single-theory" etiologies that have been formulated are probably severely handicapped in explaining a syndrome which has as many as 150 symptoms.

A second problem with the research about etiology of PMS comes from a lack of agreement by researchers about the definition of PMS, its patterns, onset and symptomatology (Clare, 1983; Osborne, 1981; Sampson & Prescott, 1981).

Table 2

Proposed Etiologies of Premenstrual Syndrome

Ovarian hormonal	Fluid and electrolyte hormonal
Estrogen	Prolactin
Progesterone	Aldosterone
	Renin/angiotensin
Other hormonal	Vasopressin
Endorphins/enkephalins	Neurotransmitters
Alpha-melanocyte	Monoamines
stimulating hormone	5-hydroxytryptamine
Glucocorticoid	Norepinephrine
Androgen	Dopamine
Insulin	Acetylcholine
Melatonin	
Other	
Vitamin B6/magnesium	
Psychological basis	
Prostaglandins	

NOTE. The above is taken from "Premenstrual Syndrome:

Overview from a Methodological Perspective", by David

R. Rubinow, M.D. and Peter Roy-Byrne, M.D., 1984,

American Journal of Psychiatry, 141, p. 170. Copyright

1984 by American Psychiatric Association. Reprinted by

permission of the authors.

Other problems revolve around the lack of comparability of research done in this area as a result of populations, measures or treatments used but not clearly enough defined to allow for close scrutiny or replication (Dennerstein & Burrows, 1979; Rubinow & Roy-Byrne, 1984).

Since this research project is not directly concerned with the cause of PMS, the review describes only briefly each proposed etiology and does not attempt to integrate the various "single-theory" models into one unified theory. The purpose of the discussion is to acquaint the reader with the current thought on the etiology of PMS. Etiologies are organized within three general categories: evolutionary, psychological and physiological.

Evolutionary Etiologies

According to the evolutionary theories, PMS is seen as an evolutionary phenomenon considered helpful to the survival of the species. Some of the symptoms of PMS are seen as ways to distance the male at a time when the female is not fertile, thereby avoiding the loss of a possible pregnancy. On the other hand, another interpretation suggests that the distancing may be used to increase male interest in the female during her next fertile time (Gorney, Janowsky & Kelly, 1966; Morriss & Keverne, 1974; Roseinsky & Hall, 1974).

Psychological Etiologies

Psychoanalytic Theory

This theory proposes that premenstrual tension is caused by a woman's conscious or unconscious conflicts about pregnancy, lack of control over bodily functions, castration anxiety, penis envy, feelings of uncleanness, aggression, and/or masturbation. Menstruation is taken symbolically as the "lost child" which would be the only compensation for not being a man (Deutsch, 1944).

Benedek and Rubenstein (1939) demonstrated a correlation between analytic material and an estrogen or progesterone dominance; the latter was assessed by analysis of vaginal smear samples. From their psychoanalytic interpretations of their patients' remembered dreams, they found the premenstruum to be associated with fears of mutilation, the recurrence of infantile fantasies and the intensification of neurotic conflicts.

Shainess (1961) sampled 103 women (including some of her analytic patients) and reported that her patients' premenstrual symptoms were a cyclic indication of their rejection of femininity and were directly related to unpleasant, humiliating or unloving experiences in relation to their mother. She found no symptoms in women who had been prepared for their menarche by their mother and were pleased at its occurrence.

Neurosis

Other studies have examined the question of neurosis and PMS and have found significant associations. Coppen and Kessell (1963) studied the relationship of both dysmenorrhoea and premenstrual symptoms by means of survey. They found a high correlation between PMS and neuroticism as measured by the Maudsley Personality Inventory. This study has been severely criticized on methodological grounds (Clare, 1983).

Taylor (1979b) found that EPI N (neuroticism) scores on the 16PF correlated significantly with high scores on the Daily Symptom Rating Scale's Affect Subscale and with the presence of two or more criteria of severe premenstrual symptoms. He states: "One may postulate that there will be some (women) who resemble neurotic patients by having maladaptive responses to stress, who are dependent or seek some secondary gain... Some women who report severe symptoms and seek treatment on that account are probably similar to neurotic patients and can be expected to score highly on tests on which neurotic patients also score highly, such as the EPI Neuroticism Scale" (p. 40).

Clare (1983) using a modified version of the Menstrual Distress Questionnaire (Moos, 1977) and the General Health Questionnaire (Goldberg, 1972) in a survey of patients of family practitioners, obtained a subsample of women who were

then interviewed by means of a standardized, semi-structured psychiatric interview (Goldberg, Cooper, Eastwood, Kedward & Shepherd, 1970). He reported that "psychiatrically ill premenstrual complainers differed from psychiatrically healthy complainers in that they reported significantly more behavioral and psychological symptoms premenstrually" (p. 35). He interpreted this to mean that "a highly significant association between premenstrual complaint and psychiatric ill-health was found" (p. 35).

Lastly, the conclusions of Smith (1975) also need to be evaluated here. Having expanded his review to include behavior which is clearly psychotic, he finds there is a "convincing array of evidence that, in many individuals, mental disturbances of psychotic proportions flare up premenstrually much more often than would be expected if time of recurrence were a chance phenomenon" (p. 27). Among the variables examined were admissions to mental hospitals, exacerbation of psychotic episodes, and increased affective disorders, such as bipolar depression.

In contrast to the research above is the work of Rees (1953) who found that although PMS was more often present in neurotic patients than in normals, there were also some very neurotic women who did not have PMS. As a result of his research, he concluded that there was no simple relationship between PMS and neuroticism.

Some authors continue to use neurosis to explain PMS. There are three ways to understand the research on neuroticism. One, which has been mentioned previously, is to accept that a "single theory" etiology is flawed. Two, one can classify the women who are characterized as neurotic as women who experience PMM (Premenstrual Magnification) a recognized sub-set of PMS (Harrison, 1983). Third, one can accept the labeling but term it "not useful" since the research that employs it uses correlational designs to find associations and, as is well known, correlation does not mean causality.

Stress

Before examining the literature on stress, it is important to note that stress has been presented as an alternative explanation for PMS. Many of the symptoms of stress, such as headaches, feelings of restlessness, anxiety, irritability and tension (Stroebe, 1982) are the same as those of PMS. For that reason, stress as an alternative explanation for PMS seems reasonable. In research conducted by Wilcoxon, Schrader and Sherif (1976) the analysis of data "revealed that the experience of stressful events accounted for more of the variance than did cycle phase for negative mood, but not for pain and water retention" (p. 415). One problem with this research that undermines its value is that the premenstrual phase

was very narrowly defined.

More usually, stress is associated as an etiologic factor that is part of or influences the degree of PMS experienced. Stress was mentioned as early as 1953 when Rees suggested that PMS was an intricate psychological state that was influenced by multiple factors, stress being an important one. More recently, Englander, Willis and Dienstbier (1977) proposed that women with more severe premenstrual symptomatology have a higher perception of stress or tension in their interactions than women who have less severe symptoms. Lastly, Abraham (1980) suggests that women who experience PMS have an increased susceptibility to stress at the same time that they experience a decreased threshold in their perception of stress.

In summarizing this section on Psychological Etiologies of PMS, one can only say that the evidence demonstrates that although it is clear that psychological symptoms are part of the cluster of PMS, there is no clear evidence presented that the etiology of PMS is only psychological.

Physiological Etiologies

In the biological realm, many different hypotheses have been put forward. Among the ones suggested are: a) Vitamin deficiency (A or B), b) Hypoglycemia, c) fluid retention, d) problems with monoamine production, e)

hormonal. As with the psychological causes, no one etiology has been shown to have more weight than the others and, in the end, a combination or interactional hypothesis is more probable.

Vitamin Deficiencies

The majority of research in this area revolves around a deficiency of Vitamin B₆ (Pyridoxine), and involves two separate theories about PMS. The earlier theory suggested that a B₆ deficiency caused an estrogen excess and led to PMS (Biskinds, 1943). Newer theories tie a B₆ deficiency to problems with the metabolism of the monoamines Dopamine and Serotonin. Both of these amines have been indicted in a variety of mood disorders as well as hypothythalamic-pituitary functioning (Reid & Yen, 1981). No conclusive evidence for this etiology has been presented although treatment of PMS with B₆ continues.

Hypoglycemia

Along similar lines, Harris (1944) proposed that some of the symptoms of PMS sufferers such as hunger, fatigue, craving for sweets, nervousness and gastrointestinal symptoms, were also symptoms of hypoglycemia. He successfully treated his patients with a combination of Vitamin B₆ and diet.

Morton (1950) found a diagnosis could be made for sub-clinical Premenstrual Hypoglycemia and hypothesized that

there were changes in the insulin receptors and for glucose tolerance at that time. Bertoli, DePirro, Fusco, Greco, Magnattu and Lauro (1980) demonstrated increased carbohydrate tolerance in PMS women which might explain the craving for some sweets.

Although the research is interesting in this area, multiple problems have arisen. Both PMS and non-PMS suffering women have hypoglycemia, and its symptoms are rarely limited to the premenstruum (Sharma, 1982).

Fluid Retention

Water retention, with its attendant weight gain, bloating, swelling and other symptoms, has been suggested as an etiology for PMS. In this case, neurological and affective symptomatology is seen as a function of cerebral edema. The various underlying pathologies that may cause such fluid retention, i.e., fluid balance disturbances, neuroendocrine and other disorders (Reid & Yen, 1981) is beyond the scope of this review.

Considered as a sub-set of the fluid retention theory, researchers have found higher levels of prolactin in women with PMS than in normal controls (Halbreich, Ben-David, Assael & Bornstein 1976). The underlying theory suggests that higher prolactin levels may lead to water and sodium retention.

Monoamine Neurotransmitters

As previously mentioned, the monoamine neurotransmitters Dopamine and Serotonin, as well as Norepinephrine, have been correlated with mood disorders in the psychiatric literature. It is beyond the scope of this paper to explain the complex interactional patterns that exist between the neurotransmitters, the sex steroids, and the adrenal hormones. Research indicates two bases for indicting these monoamines. First, there is evidence that the monoamines and the sex steroids show overlapping effects in the regulation of ovulation, which may explain the correlation between mood and the menstrual cycle. There is also evidence that the relationship is reciprocal: that is, the sex steroids influence monoamine oxidase activity in the brain (Rausch & Janowsky, 1982).

Hormones

This last section on physiologic etiologies focuses on the most obvious explanation of PMS, i.e. it is a hormonal dysfunction. The two hormonal systems involved are the Estrogen/Progesterone System (Smith, 1975; Lever & Brush, 1981) and the Renin-Angiotensin-Aldosterone System (Dennerstein, 1979; Janowsky, 1973).

Estrogen/progesterone theory.

Within the estrogen/progesterone school, there are many theories. Three of the basic theories include: a) the

hormonal allergy theory; b) the high level estrogen theory; and c) the estrogen/progesterone balance theory.

The hormonal allergy theory.

The basis for this hypothesis rests on research which indicates that some women with PMS may have an allergic reaction to endogenous progesterone (Zondek & Bromberg, 1945, 1947).

The high estrogen theory.

Frank, who originated the term Premenstrual Tension, postulated that PMS was caused by hyperestrogenemia (Frank, 1931). In 1974, Backstrom and Carstensen confirmed high levels of estrogen and low levels of progesterone. The exact cause of high levels of estrogen has not been identified and researchers are divided about possible causes (Backstrom & Carstensen, 1974; Biskin, 1943; Frank, 1931).

Estrogen/progesterone balance theory.

In this set of causes, the question of too much or too little progesterone or estrogen in relationship to the other is central. Although Greene and Dalton in 1953 suggested it was a question of the ratio, this concept has not held up. To demonstrate the confusion around this particular explanation, five studies will be presented. Dalton, a pioneer in PMS work, espoused a progesterone deficiency theory in 1964. This theory implied adequate

estrogen. Culberg (1972) in his research suggested estrogen dominance implying normal progesterone. In 1975, Smith suggested that no one clear hormonal cause could be identified. In his research sample, he found no difference in the estrogen/progesterone ratio. However, he did find that his sample had a lower progesterone level with adequate estrogen levels than did other studies. In 1977, Steiner and Carroll split the difference. They suggested that PMS which had irritability as its main focus probably had a high estrogen/progesterone ratio, while PMS with depression had a low estrogen/progesterone ratio.

In summarizing the problems with the estrogen/progesterone literature, with its diverse and oppositional findings, Rubinow and Roy-Byrne (1984) based their criticism on the improper experimental designs, the techniques used in the research, and the definitions of PMS and populations used for samples.

To conclude this section, it is logical to assume that the gonadal steroids are probably implicated in PMS etiology. The research, however, is extremely problematic since the findings, which are numerous, support no one hypothesis and the research methodology in this area has come under much criticism.

Renin-aldosterone theory.

In the renin-aldosterone theory, the underlying

culprit is again water retention. The difference between this and other fluid retention theories lies in understanding the reason for the affective disorder. Unlike the explanations provided earlier, researchers who espouse this hormonal axis as etiology disagree with the cerebral edema theory (Janowsky, 1973). Rather, they suggest that the affective changes may be due to a substance, angiotensin, which fluctuates in the body parallel with aldosterone. Aldosterone is known to effect the renal sodium reabsorption (Dalton, 1964), while angiotensin effects the central neurotransmitters. The changes in the body may be activated by renin in response to progesterone. The aldosterone rises as a result of the increased renin secretion. This increases the secretion of angiotensin which leads to the increased aldosterone. The process appears to start when there is an increase in progesterone leading to a sodium loss (Dennerstein, 1979).

Summary of Etiologies

In summary, no one etiology has been clearly recognized as the cause for PMS. The range of theories begins with the evolutionary origins and the psychoanalytic idea of rejection of the feminine role and moves through various other psychological theories to more biological ones. The research in the psychological area has demonstrated that, although it is clear that psychological

symptoms are part of the cluster of PMS, there is no clear evidence that the etiology of PMS is only psychological. The research in the physiological areas of hypoglycemia, hormonal or neurological causes has been extensive but unfortunately marred by lack of a good methodology or clear definitions. As a result, the research in the etiology of PMS, although extensive, is inconclusive.

APPENDIX B

Response Card

Intake Sheet

Consent Form

Exit Interview Protocol

RESPONSE CARD

THANK YOU FOR YOUR INTEREST in this exciting research project!

If you participate in this project you can expect to learn about the type of PMS you have and some ways that you and your family can cope with it.

In order to participate you must be:

1. Married, between the ages of 25-40.
2. Not using oral contraception.
3. Not taking a prescription drug for your PMS
4. Be willing to spend about 10 minutes a day with your spouse filling out the forms.

(OVER)

If you and your spouse might be interested in this no charge evaluation of your PMS, please fill in this card and leave it at the front desk.

NAME _____

Phone (daytime) _____

(evening) _____

The best time to call me is:

Thank you once again.

INTAKE SHEET

Full name _____ Age _____

Husband's name _____ Age _____

Street _____

City _____ State _____ Zip _____

Day phone (____) ____ - ____ Night phone (____) ____ - ____

Highest grade completed (h) _____ (w) _____

Date of marriage ____/____/____ Number of times married ____

Number of children ____ M ____ F Ages of Children _____

Number of hours worked outside the home (w) _____ (h) _____

Type of employment _____

Husband's Employment _____

Menstrual Information:

a) How many days is your typical menstrual cycle? _____

b) How many days do you usually menstruate? _____

c) Is your cycle Regular Fairly regular Irregular?

d) Do you have frequent problems associated with your period,
e.g. cramps, heavy flow? Yes ____ No ____

If "Yes", please specify _____

e) Are you taking an oral contraceptive? Yes ____ No ____

f) Are you taking any medication for your PMS, either
prescribed or "over the counter"? Yes ____ No ____

If "Yes", please specify _____

g) When are you expecting your next period to start? _____

CONSENT TO PARTICIPATE

M. Sara has described her research project on Premenstrual Syndrome to us. We understand that participation in this study requires us to keep daily records for the period of approximately one month. At the end of that time, if we are interested, recommendations may be made to us that might be helpful in dealing with PMS as it appears in our relationship. We understand that all information will be kept confidential and that our names will never be associated with the results of this study. Code numbers will be assigned to our forms to further protect our identities. We also understand that we are free to withdraw from this study at any time provided we notify you of our intent to do so.

(Husband)

(Wife)

Date _____

| ☐ | Please check here if you would be interested in getting a copy of the results of this study.

EXIT INTERVIEW

1. How would you define PMS ?
2. What is your (your wife's) pattern of PMS ?
3. What are the worst symptoms of your (your wife's) PMS ?
4. What do you do to treat your (your wife's) PMS ?
 - a. dietary changes ? c. other ?
 - b. exercise ?
5. How do you cope with your (your wife's) PMS ?
6. How would you describe the impact tht PMS has on your relationship? The relationship and PMS ?
7. How would you describe this last month in terms of
 - a. life events and stress ?
 - b. PMS ?
 - c. your relationship ?
8. Did participating in this reasearch change your behavior?
9. Did participating in this research affect your reponse to any of the questions ? If yes, please describe.
10. Did participating in this research change your view of PMS ? If so, how?
11. How much did you discuss/compare your ratings at night?
12. What did you understand to be the purposes of this research? Did you think that there might be others ?

APPENDIX C

Research Instruments:

Spouse Observation Checklist (Personalized)

Moos Menstrual Distress Questionnaire

Serial Week: _____

**SPOUSE OBSERVATION CHECKLIST
WEEKLY SUMMARY**

Initials _____

Male _____ Female _____

Mo. Date Yr Day

Day 1 = 1 1 1

Day 7 =

DAY

TIME Together (Hrs) Each Day

MARITAL SATISFACTION RATING

1 5 9

Very Dissatisfied Neither Satisfied nor Dissatisfied Very Satisfied

[illegible]

DAY

[illegible]

DAILY TOTALS

Male	Female
------	--------

1	2	3	4	5	6	7
p d	p d	p d	p d	p d	p d	p d

We held each other
 We took a shower or a bath together
 We warmed each other in bed
 We held hands
 Marion hugged or kissed me
 Marion warmed my cold feet
 Marion greeted me affectionately when I came home
 Marion touched me affectionately

[illegible][illegible]

We listened to music on the radio or stereo
We sat and read together
We watched TV (1/2 hour or more)
We read aloud to each other
We worked together on decorating our home
We read the newspapers together
We gardened
We played with our pets
We baked bread or pastries
We played chess, monopoly, scrabble (any board games)
We got high on drugs or alcohol
We hunted for interesting things to photograph
We took a walk
We went for a ride
We did exercise together
We went swimming or diving
We went shopping for new clothes
We went to a dance or party
We had a fancy candlelight dinner at home
We went out for a nice meal or dinner
We went out for coffee, coke, or ice cream
We ate at an inexpensive restaurant or drive-in
We went to a museum
We went to a bar or tavern
We went to a movie (play, concert, ballet, etc.)
We went to class or lecture
We went to the library together
We worked together on an art or craft project
We discussed or worked on a project one of us is responsible for
We worked together on a hobby (stamp collecting, etc.)
We exchanged a gift
We watched the sunset (sunrise)
We laughed together

[illegible]

Marion let me know she enjoyed intercourse with me						
Marion initiated sexual advances						
Marion was pleasantly responsive to my sexual advances						
Marion petted me						
Marion participated in a sexual fantasy						
Marion presented herself in the nude						
Marion was uncommunicative during sexual activity						
Marion left me frustrated at the end of a sexual session						
Marion rushed into sexual intercourse without foreplay						
Marion complained about my sexual behaviors						
Marion rejected my sexual advances						
Marion turned off in the middle of making love						
Marion fell asleep immediately after making love						
.....						
.....						
Sex Total						

COMMUNICATION PROCESS

We talked about something troubling, outside of our relationship ..						
We were able to work successfully on a problem						
We had a good talk about our relationship						
We agreed about something						
We talked about personal feelings						
We talked about personal day-to-day happenings						
We had a constructive conversation about family management						
We talked about a vacation						
We had an intellectual, philosophical or political discussion						
We talked about a show we had seen						
We had a humorous conversation						
Marion asked about my feelings						
Marion expressed thoughts or feelings to me						
Marion confided in me						
Marion consulted me about an important decision						
Marion asked me for my opinion						
Marion showed particular interest in what I said by agreeing or asking relevant questions						
Marion helped in planning an outing or social event						
Marion suggested something fun or interesting that we could do for the evening						
Marion refused to make a decision on a significant issue						
Marion refused to talk about a problem we share						
Marion brought up bad times from the past						
Marion dominated the subject						
Marion interrupted me						
Marion offered unsolicited advice						
Marion responded "I don't know" without considering the question ..						
Marion disagreed harshly with something I said						
Marion did not want to talk about her problem with me						
.....						
.....						

[illegible]

COUPLING ACTIVITIES

[illegible]

CHILD CARE AND PARENTING

We discussed the children					
We took the children on a family outing					
We cared for the child when sick					
We played with the children					
We disciplined the children					
Marion read a story to the children					
Marion played with the children					
Marion disciplined the children appropriately:					
Specify					
Marion answered child's question					
Marion took the children to school or elsewhere					

Marion taught the children something							
Marion comforted a baby, made him/her stop crying							
Marion watched the children while I did some work							
Marion helped feed the children							
Marion gave child a bath							
Marion got up in the night to take care of child							
Marion changed baby's diapers							
Marion helped put the children to bed							
Marion arranged for babysitting							
Marion cleaned out dirty diaper							
Marion criticized the way I handled the children in front of them ..							
Marion refused to help with the children							
Marion punished child too severely: Specify							
Marion refused to answer child's question							
Marion yelled at the children							
Marion was too permissive with the child: Specify							
Marion was too protective towards child: Specify							
Marion hit child							
Marion told child to leave her alone							
Marion conspired with children to break rules							
Marion contradicted me in front of child							
Marion favored one child over another							
Marion refused to help in babysitting arrangements							
.....							
.....							
.....							
Child Care and Parenting Total							

HOUSEHOLD MANAGEMENT

We ran some errands							
We went grocery shopping							
Marion helped with shopping							
We planned or prepared a meal together							
Marion prepared an interesting or good meal							
Marion carried groceries into the house							
Marion had dinner ready on time							
Marion helped with the cooking							
Marion set the table							
Marion cleared the table and put the food away							
Marion did the dishes							
Marion helped me do the dishes or other chores							
Marion straightened up the house							
Marion made needed complaints to the landlord, utility companies, garbage collector, etc.							
Marion appropriately handled a minor crisis without bothering me about it							
Marion did household repairs or arranged to have them done							
Marion put dirty clothes in the hamper							
Marion set alarm clock							

[illegible]

Marion paid attention to her appearance (shave, took bath, etc.)
 Marion dressed nicely
 Marion hung up her clothes in the closet
 Marion got a haircut or hairdo
 Marion left clothes hanging around
 Marion left dirty dishes around the house
 Marion made a mess and didn't clean it up
 Marion left personal belongings lying around the house
 Marion mumbled
 Marion spoke in a whining voice
 Marion slurped liquid or made other unpleasant noises while eating
 Marion used poor table manners
 Marion talked with mouth full of food
 Marion belched
 Marion was late picking me up
 Marion exceeded the speed limit or drove carelessly
 Marion made us late for an appointment by not being ready on time
 Marion hogged the covers
 Marion wore curlers when I was at home
 Marion violated her diet
 Marion wore sloppy clothes
 Marion neglected her appearance (did not shave, bathe, etc.)
 Marion used my toilet articles (razor, toothbrush, etc.)
 Marion left hairs in the sink
 Marion monopolized the bathroom
 Marion did not flush the toilet after using it
 Marion left her toilet articles out in the bathroom
 Marion used up all of the toilet paper without getting a new roll
 Marion left the top off the toothpaste

[illegible]

Marion did not clean the tub after using it						
Marion left the bathroom in a mess						
Marion used up all the hot water						

Personal Habits and Appearance Total | | | | | | |

SPOUSE AND SELF INDEPENDENCE

We scheduled independent activities and responsibilities						
We both engaged in independent activity						
We went to different shows that we each wanted to see						
Marion agreed that we would spend a period of time by ourselves ...						
Marion responded favorably to my desire for a night out without him						
Marion went to a lecture (show, film, etc.) alone						
Marion read a book						
Marion is doing a physical activity alone (jogging, biking, etc.) .						
Marion had lunch (dinner) with a friend						
Marion is taking a night class						
Marion went to a party alone						
Marion complained when I wanted to spend time with a friend						
Marion complained when I wanted time to myself						
Marion refused to let me have free time for a hobby						
Marion left me behind to watch the children or work, while she						
went out for fun						
Marion spoke positively about an experience from which I was						
excluded						
Marion excluded me from an activity I would have liked to						
participate in						
Marion opened my mail or went through my personal papers						

Spouse and Self Independence Total | | | | | | |

MENSTRUAL DISTRESS QUESTIONNAIRE
Form TW

Name _____

Week Number _____

On the next two pages is a list of symptoms which women sometimes experience. For each symptom choose the descriptive category listed below which best describes your wife's experience of that symptom today. Enter the number in the box next to that symptom as it describes her experience of that symptom today. Even if none of the categories is exactly correct, choose the one that best describes your knowledge of her experience. Please be sure to enter one number for each symptom. Please also remember to put your name and date in the appropriate spaces.

Descriptive Categories

0. None 1. Present mild 2. Present, moderate 3. Present, strong 4. Present severe

	Date						
1. Muscle stiffness	1.						
2. Weight gain	2.						
3. Dizziness or faintness	3.						
4. Loneliness	4.						
5. Headache	5.						
6. Skin blemish or disorder	6.						
7. Cold sweats	7.						
8. Anxiety	8.						
9. Mood swings	9.						
10. Cramps	10.						
11. Painful or tender breasts	11.						
12. Nausea or vomiting	12.						
13. Craving	13.						
14. Backache	14.						
15. Swelling(breasts, abdomen)	15.						
16. Hot flashes	16.						
17. Irritability	17.						
18. Tension	18.						
19. Fatigue	19.						
20. Feeling sad or blue	20.						
21. General aches and pains	21.						

22. Restlessness
23. Insomnia
24. Poor work or school performance
25. Affectionate
26. Feelings of suffocation
27. Forgetfulness
28. Take naps or stay in bed
29. Orderliness
30. Chest pains
31. Confusion
32. Poor judgment
33. Stay at home
34. Excitement
35. Ringing in ears
36. Difficulty in concentration
37. Avoiding social activity
38. Feelings of well-being
39. Heart pounding
40. Distractable
41. Decreased efficiency
42. Bursts of energy, activity
43. Numbness, tingling
44. Minor accidents
45. Blind spots or fuzzy vision
46. Poor motor coordination
47. Increased appetite

22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						
31.						
32.						
33.						
34.						
35.						
36.						
37.						
38.						
39.						
40.						
41.						
42.						
43.						
44.						
45.						
46.						
47.						

MENSTRUAL DISTRESS QUESTIONNAIRE
Form

Name _____

Week Number _____

On the next two pages is a list of symptoms which women sometimes experience. For each symptom choose the descriptive category listed below which best describes your experience of that symptom today. Enter the number in the box next to that symptom as it describes your experience of that symptom today. Even if none of the categories is exactly correct, choose the one that best describes your experience. Please be sure to enter one number for each symptom. Please also remember to put your name and date in the appropriate spaces.

Descriptive Categories

0. None 1. Present mild 2. Present, moderate 3. Present, strong 4. Present severe

	Date						
1. Muscle stiffness	1.						
2. Weight gain	2.						
3. Dizziness, faintness	3.						
4. Loneliness	4.						
5. Headache	5.						
6. Skin blemish or disorder	6.						
7. Cold sweats	7.						
8. Anxiety	8.						
9. Mood swings	9.						
10. Cramps	10.						
11. Painful or tender breasts	11.						
12. Nausea or vomiting	12.						
13. Crying	13.						
14. Backache	14.						
15. Swelling(breasts, abdomen)	15.						
16. Hot flashes	16.						
17. Irritability	17.						
18. Tension	18.						
19. Fatigue	19.						
20. Feeling sad or blue	20.						
21. General aches and pains	21.						

22. Restlessness
 23. Insomnia
 24. Poor work or school performance
 25. Affectionate
 26. Feelings of suffocation
 27. Forgetfulness
 28. Take naps or stay in bed
 29. Orderliness
 30. Chest pains
 31. Confusion
 32. Poor judgment
 33. Stay at home
 34. Excitement
 35. Ringing in ears
 36. Difficulty in concentration
 37. Avoiding social activity
 38. Feelings of well-being
 39. Heart pounding
 40. Distractable
 41. Decreased efficiency
 42. Bursts of energy, activity
 43. Numbness, tingling
 44. Minor accidents
 45. Blind spots or fuzzy vision
 46. Poor motor coordination
 47. Increased appetite
 48. Do you have your period today

22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						
31.						
32.						
33.						
34.						
35.						
36.						
37.						
38.						
39.						
40.						
41.						
42.						
43.						
44.						
45.						
46.						
47.						
48.						

**The two page vita has been
removed from the scanned
document. Page 1 of 2**

**The two page vita has been
removed from the scanned
document. Page 2 of 2**

PREMENSTRUAL SYNDROME AND MARITAL SATISFACTION

by

Mary Linda Sara

Committee Chairperson: Linda Thompson
Family and Child Development

(ABSTRACT)

Clinical interest in PMS has existed for more than one and a half centuries. There is still no consensus about its frequency, seriousness, etiology or treatment. Its impact on marital relationships has not been an area of research interest, even though one woman in twenty, or even one every ten, may be so afflicted that her life is disrupted premenstrually month after month.

This study was designed to explore this research area through the use of prospective self-reporting measuring instruments completed on a daily basis by both husband and wife in six couples over a time period of one complete menstrual cycle.

The husband's perception of his wife's negative affect was one independent variable. The wife's perception of her own negative affect was the other.

Six dependent variables were measured: The husband's and wife's self rating of own marital satisfaction; the husband's and the wife's perceptions of the spouse's displeasing behaviors; and the husband's and the wife's perceptions of the spouse's pleasing behaviors.

A case study approach was used and, in addition to time series analysis of the daily ratings, a semi-structured exit interview was conducted with each couple so that anecdotal material could be compared and evaluated along with the quantifiable data.

Because of the nature of the study, self-definition and diagnosis of PMS was chosen as the admission criterion. In addition, the wife could not be using oral contraceptives, nor could she be taking over-the-counter or prescribed medication for her PMS.

Decreases in the husband's marital satisfaction were found to be associated with increases in the his perception of his wife's negative affect in five of the six cases. In four of the six cases, the husband perceived an increase in displeasing behaviors by his wife when he perceived an increase in her symptoms.