

VARIABLES RELATED TO THE TREATMENT METHOD(S)
PREFERRED BY DALLAS COUNTY PHYSICIANS
FOR PREMENSTRUAL SYNDROME

A THESIS

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BY

GLINDA GAIL SHAFFER, A.A.S., B.S.

DENTON, TEXAS

MAY 1989

TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

December 1, 1988
Date

To the Dean for Graduate Studies and Research:

I am submitting herewith a thesis written by Glinda Gail Shaffer entitled "Variables Related To The Treatment Method(s) Preferred By Dallas County Physicians For Premenstrual Syndrome." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts in Community Health Education.

Leah E. Kaplan
Leah Kaplan, PhD, Major Professor

We have read this thesis and
recommend its acceptance:

Ruth E. Tandy
Sharon C. Underwood, Ph.D.
Judith A. Baker
Chair, Department of Health Education

Accepted

J. Amthaler
Dean, College of Health, Physical Education,
Recreation, and Dance

Accepted

Leslie M. Thompson
Dean, Graduate Studies and Research

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Texas Woman's University, Denton, Texas

A. Uhler
Institutional Representative

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Premenstrual symptomatology and treatment has been well defined in the literature. Few studies have examined variables related to physicians and their selection of treatments for Premenstrual Syndrome (PMS). Previous studies have implied that there is a need to assess the degree to which help is being offered to those who seek it. The purpose of this study was to determine if a difference existed among the methods preferred for the treatment of PMS by obstetricians/gynecologists practicing in Dallas County. In Dallas County, two hundred eighty five practicing physicians were surveyed. Analyses of the data from the 72 respondents indicate that there is significant variance in the treatment methods preferred by Dallas County Physicians who treat patients for PMS. In addition, there is a significant relationship between the treatment methods that the physicians preferred and their age and number of years in practice.

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CHAPTER 1

INTRODUCTION

Consumer oriented and professional literature suggest that greater numbers of women in the work force, and an overall increase in health education dissemination, have resulted in increasing media coverage of women's health issues (Brown & Zimmer, 1986a, 1986b; Levine, O'Connor, & Barton, 1985). Female consumers are being urged to take greater personal responsibility for their own health.

Premenstrual syndrome (PMS) recently has been attracting much attention, both in printed material and on television, which has increased public awareness of this problem and, at the same time, has highlighted the dilemma concerning the syndrome. Until recently, a woman suffering from PMS would be told by her physician that "it was all in her head." Today, given the increased health knowledge of the public and the current trend toward consumerism in health care, such a medical response probably would be challenged (Levine et al., 1985).

Women are demanding appropriate attention for PMS. Health educators and physicians alike need to improve their knowledge and understanding of this fairly common disorder and how it impacts on women's health (Levine et al., 1985). Women's knowledge about available treatment methods would motivate greater consumer input, would increase the possibility for treatment program effectiveness, and would enable

the woman seeking treatment for PMS to make an informed decision about complying with medically prescribed treatment programs.

Statement of the Problem

The problem of this study was to provide demographic and professional information concerning the characteristics of physicians in Dallas County who treat women for PMS and their preferred methods of treatment for this condition.

Purpose of the Study

The purpose of this study was to determine if a difference existed among the methods preferred for the treatment of PMS by obstetricians/gynecologists practicing in Dallas County.

Background and Significance

Throughout history, a variety of myths and misconceptions have surrounded menstruation. Primitive societies believed that menstrual flow was associated with disasters, ill fortune, and the supernatural. Misconceptions about the menstrual cycle are still prevalent, despite increased knowledge and the dramatic change in women's roles (Price, Dimarzio, & Gardner, 1986).

As with other illnesses of unknown etiology, therapy for PMS remains largely empirical. Although various treatments have been successful in some women, none has proved to be effective consistently

in all women. Keye (1985) divided treatment for PMS into three separate modalities:

1. Those that are designed to relieve symptoms without attempting to modify the underlying disease process.

2. Those that presumably correct an underlying pathophysiologic disorder that is, in the opinion of the clinician, the cause of PMS.

3. Those that alter the normal ovulatory menstrual cycle.

As a result of the complexity of the issue of premenstrual syndrome and the growing concern for women's health in general, there is a developing interest in the factors that influence the selection of treatment methods by physicians. Alexander, Taylor, and Fordyce (1986) studied attitudes of general practitioners towards premenstrual symptoms and those who suffer from them. One aspect of their descriptive study evaluated treatment method(s) preferred. Assessment also was made of the extent to which the studied physicians believed the treatments to be effective.

According to Brown and Zimmer (1986a), 87% of women in a recent study consulted a physician versus other providers of care for PMS symptomatology. Only 20% of those who consulted physicians felt that they were given useful information. Of these, 16% thought their symptoms improved as a result of the help that they received.

Research studies and articles concerning PMS have dealt with treatment methods, symptomatology, and etiological theories (Harrison, Sharpe, & Endicott, 1985; Havens, 1985; Keye, 1985; Logue & Moss, 1986).

There is a lack of general information, however, regarding physicians who treat PMS patients and the methods they prefer (Alexander et al., 1986). Because of the lack of research specific to physicians' preferred methods of treatment for PMS, there is a need to study the medical help which is being offered to those who seek it.

Hypothesis

The following hypothesis was tested at the .05 level of significance: Physicians who treat women for premenstrual syndrome will show no significant variance in their preferred methods of treating the syndrome.

Definitions of Terms

The following terms are defined for the purposes of this study:

1. Analgesic. A drug designed to relieve pain (Thomas, 1973).
2. Anti-Inflammatory drug. A drug that diminishes inflammation or its effects (Thomas, 1973).
3. Diuretic. A substance designed to eliminate body fluid by increasing the secretion of urine (Thomas, 1973).
4. Luteal Phase. The time period of the menstrual cycle following ovulation and preceding the actual onset of menses (Thomas, 1973).
5. Premenstrual Symptomatology. Symptoms which include, but are not limited to, anxiety, irritability, depression, emotional lability,

abdominal cramping, bloating, breast tenderness, edema, headache, and a craving for sweets and other high carbohydrate foods (Price et al., 1986).

6. Premenstrual Syndrome/(PMS)/Perimenstrual Syndrome. A constellation of affective and physical changes that occur repetitively in varying degrees during the luteal phase of a woman's menstrual cycle (Price et al., 1986).

7. Progesterone. A hormone that is responsible for changes in the uterine endometrium in the second half of the menstrual cycle (Thomas, 1973).

8. Psychotropic Drugs. Drugs which affect psychic function, behavior, or experience (Thomas, 1973).

9. Pyridoxine. A preparation of Vitamin B₆ (Thomas, 1973).

Delimitations

The study was delimited by the following:

1. The population included only physicians in Dallas County who were listed in the Dallas County Medical Society's 1986 Directory.

2. The population included practicing physicians in Dallas County who specialize in obstetrics and gynecology and treat women for PMS.

3. Only methods of treatment preferred by the physicians were evaluated; availability of the desired treatment, women's preferences, and adherence to treatment methods by women were not evaluated.

Assumptions

The assumptions inherent in this study were as follows:

1. The respondents have diagnosed and treated PMS appropriately.
2. Each physician's knowledge of PMS was sufficient to complete the questionnaire accurately.

CHAPTER 2

REVIEW OF LITERATURE

The review of literature presented in this chapter is concerned with premenstrual syndrome (PMS), its prevalence, the personal/job/family impact of PMS, and consumer practices by women seeking help for the syndrome. A study of general medical practitioners' attitudes toward PMS has been reviewed also.

Premenstrual Syndrome

According to Logue and Moos (1986), the term premenstrual syndrome was first used by Frank in 1931. Frank used the term to describe a condition that occurs seven to ten days prior to menstruation and is characterized by severe tension, weight gain, headaches, and edema. As reported by Reid and Yen (1981), Frank theorized that the syndrome is due to estrogen excess and progesterone deficiency, and he recommended cathartics to eliminate the excessive sex hormone through the bowel. Price et al. (1986) referred to PMS as a constellation of affective and physical changes that occur repetitively in varying degrees during the luteal phase of the menstrual cycle. The overall interest in defining PMS has been fueled by a renewed concern about women's health in general, and by a trend toward the scientific consideration of issues, such as PMS, which heretofore had been thought of as taboo (Logue &

Moos, 1986).

In their 1986 study, Logue and Moos considered the relationship of premenstrual symptoms to sociodemographic factors, cycle characteristics, and contraceptive techniques. They used the term perimenstrual symptoms or syndromes to indicate symptoms linked to the premenstrual and/or menstrual phases of the menstrual cycle, and to recognize the likely existence of several syndromes with different biopsychosocial etiologies. According to Logue and Moos (1986), the word syndrome typically refers to a group of symptoms that occur together and characterize a medical or abnormal condition. The term syndrome also is used in a more general sense to refer to an interrelated set of experiences that form an identifiable pattern.

Levine, O'Connor, and Barton (1985) stated that PMS is best described as a psychoneuroendocrine dysfunction characterized by a constellation of symptoms that cyclically recur prior to the onset of menses. In their 1985 study, Levine et al. theorized that part of the difficulty in arriving at a universally accepted definition of PMS is the fact that, as yet, there are no objective physical signs or laboratory tests that can definitely distinguish the PMS sufferer from the non-PMS sufferer.

In a baseline study conducted by Brown and Zimmer (1986b), 83 women and 32 men completed questionnaires on coping strategies, personal and family impact, and alterations in family functioning attributed to PMS. Brown and Zimmer summarized that, given the large number of

potentially disabled women, premenstrual symptomatology is considered a major health problem. Brown and Zimmer also reported, "While debate about the precise meaning of the term premenstrual syndrome has taken place, the consensus is that physical and emotional symptoms occur in many women on a cyclic basis and, for some, may be disabling" (1986b, p. 31).

In a 1985 study, Havens reviewed physicians' understanding of PMS. Her study represented a straightforward approach to diagnosis and described a variety of interventions for PMS. Havens defined PMS as occurring in the same phase of each menstrual cycle, and as being followed by a symptom-free phase of at least one week after menses.

Prevalence of PMS

In 1981, Reid and Yen reviewed developments in biochemical and psychosocial elements of PMS in an effort to redefine the pathophysiology of PMS. They theorized that efforts to compare epidemiologic data on PMS are likely to be misleading because of variable interpretations of the clinical manifestations and the obvious difficulties encountered in quantifying the severity of symptoms. Reid and Yen suggested that some bias in these analyses may result from the fact that women who suffer from premenstrual symptoms are more likely to be motivated to enter studies or to answer questionnaires. The researchers reported that the limitations of self-report studies are inherent and have been emphasized in previously existing controlled

studies. They stated that there is an increased tendency to report physical symptoms by women who were misled to believe they were premenstrual. According to Reid and Yen, 70% to 90% of the female population will admit to recurrent premenstrual symptoms, and 20% to 40% report some degree of temporary mental or physical incapacitation as a result of these symptoms.

Kramer (1983) reported that 54% of all women experience moderate to severe PMS symptoms. Of these, 80% have anxiety-related symptoms. PMS is more common among women with menstrual irregularity, married women, women with mothers who have PMS, and following tubal ligation.

In a descriptive study, Canty (1984) stated that most women will not suffer all of the symptoms of PMS, but they often will suffer from more than one symptom. Since only a small percentage of women are affected severely, most women learn to cope with the occurrence of these symptoms in their daily lives. Canty reported that approximately 40% to 90% of women have been estimated to be affected by PMS, with 2% to 4% believed to be severely affected.

In a 1986 study, Logue and Moos provided a critical overview of information on the prevalence of perimenstrual symptoms. In particular, they examined how prevalence estimates vary according to the type of symptom measured and the severity criteria used. They considered such methodologic issues as the time interval on which symptom reports are based and whether they reflect a woman's past menstrual cycles or her current one. Risk factors and correlates of perimenstrual symptoms are

also examined.

Logue and Moos (1986) studied prevalence estimates of perimenstrual symptoms as measured by retrospective and prospective assessment. Also included were cross-cultural studies of symptoms' prevalence. A retrospective study asks women to describe symptoms from one or more past menstrual cycles. In prospective studies, women rate perimenstrual symptoms concurrently as they are experienced during at least one menstrual cycle. Logue and Moos reported that many past studies have assessed the prevalence of perimenstrual symptoms retrospectively. Retrospective data seems to provide a reasonably accurate reflection of many women's overall premenstrual symptoms, though they probably overestimate symptom prevalence in comparison to prospective data.

Logue and Moos (1986) found that many previous prevalence studies have used the Menstrual Distress Questionnaire (MDQ) to obtain a woman's report about her last menstrual cycle. The MDQ is a 47-item questionnaire that measures physical and psychologic symptoms during three cycle phases (premenstrual, menstrual, and intermenstrual). The MDQ has two forms--a retrospective form that measures symptoms in the most recent cycle, and a prospective or "today" form that is used for daily assessment. On both forms, women rate each symptom on a 5-point scale. From a sample of 839 women used to develop the MDQ, Logue and Moos estimated the prevalence of physical (pain, autonomic reactions, and water retention) and psychological (negative affect, impaired

concentration, and behavior change) symptoms. All of these factor scales showed cyclical variation with the highest percentage of women reporting symptoms during either the premenstrual or menstrual phase.

According to Logue and Moos (1986), the World Health Organization has conducted a cross-cultural study on the perception of menstruation among more than 5,000 various women from 14 cultural groups. Women from all the studied cultures said they experienced physical discomfort (55% - 70%) and negative mood changes (23% - 70%) with menstruation. Information was obtained on the frequency and severity of premenstrual symptomatology from Greek, Japanese, Turkish, Nigerian, Apache Indian, and White American women. There were several variations in symptoms reported, such as a low rate of breast complaints (enlargement and soreness) among Japanese women, and a high frequency of headaches experienced by Nigerian women. Turkish women had the highest premenstrual symptom scores, and Japanese women had the lowest.

The MDQ, or adaptations of it, has been used in several non-English speaking European, Middle Eastern, and African countries. According to Logue and Moos (1986), these studies confirm that women from a variety of cultures experience common, cyclical perimenstrual symptoms.

Logue and Moos (1986) concluded that at least 40% of all women experience some mild cyclical perimenstrual symptoms that are not necessarily associated with significant changes in daily living. Physical symptoms are reported more frequently during the menstrual

phase. Psychological symptoms are more common premenstrually. A fairly consistent proportion of 2% to 10% of women report severe premenstrual symptoms. For this minority of women, premenstrual symptoms are thought to be associated with significant impairment of daily living activities.

Personal/Job/Family Impact

According to Reid and Yen (1981), it has been known for many years that when women become irritable, tense, or depressed in their premenstrual weeks, temporary deterioration in their interpersonal relationships frequently develops. Such a change has been observed in marital discord, baby battering, and criminal behavior. With women playing an increasing role in industry, attention has been focused on the impact of PMS on absenteeism and work inefficiency. It has been observed that 36% of 1,500 women in one plant sought sedation in the premenstrual week, and estimates suggest that absenteeism due to PMS caused a loss of 5 billion dollars in 1969 alone. Reid and Yen further reported that, although the association between the PMS and intellectual impairment has not been clearly established, there are increased numbers of psychiatric admissions, accidents, and suicide attempts in women during the premenstrual phase. The legal implications of PMS, and the manner in which PMS-like temporary insanity may alter the legal assessment of mental competence and criminal responsibility, have been the topic of recent reviews. Although crime, accident, and suicide rates are higher in women during the premenstrual phase, it is

noteworthy that these rates are still lower than those seen in the noncycling male subject (Reid and Yen, 1981).

Kramer (1983) estimated that at least 30 billion dollars, or 8% of all wages has been lost to U.S. industry because of PMS. According to Kramer, the Center for Safety Education has found that during the 48 hours prior to a woman's period, she and her fellow workers are at the greatest risk for physical injury and accidents. The results of a Texas Instruments study (cited in Kramer, 1983) found that, during the premenstrual phase, women were able to put together 75 components per hour. During the rest of the month, productivity increased to 100 components per hour. Prior to and during a menstrual period, women simply slow down.

Havens (1985) reviewed literature concerning PMS, and reported that the number of psychiatric admissions, accidents, and suicide attempts increases among women during the premenstrual phase. PMS has been used as a mitigating factor in criminal trials in the United States and in Europe: Although no woman has been declared not guilty by reason of PMS, it has been used as a mitigating factor in sentencing. Some women have received lighter sentences for crimes such as child or spouse abuse if they have begun and have continued treatment for PMS.

According to Long (1985), 10 to 11% of those suffering from PMS will be affected to a degree that seriously disrupts their lives and the lives of their families. Studies of women with severe PMS have shown that this disorder can lower the quality of life significantly for these

women and their families. Women severely affected by PMS cannot hold jobs or maintain relationships, and they almost unanimously fear that they are insane because they see their efforts interrupted monthly and their goals unrealized. Long further noted that severe PMS sufferers usually have high guilt levels in relation to their families, with whom they are explosive, critical, unreasonable, and unpredictable. They blame themselves for damaged relationships, and fear that they are hurting their children. Severe PMS sufferers often have difficulty trusting others, and lack the confidence to build lasting relationships. Some women with severe symptoms experience savage reactions to everything; they experience both self-dislike and remorse about their behavior. Rather than make matters worse, severe PMS sufferers tend to withdraw from others. Long (1985) concluded that there are no simple or quick solutions to living with PMS, and suggested that family counseling may aid the severe PMS sufferer and her family. If children are old enough to understand, PMS should be explained to them in simple terms. During their symptom-free days, severe PMS sufferers and their families must decide on a crisis-coping strategy that can be put into effect during the premenstrual period. Without intervention, the PMS sufferer's family can be doomed to a chronic cycle of monthly disequilibrium and disintegration.

Price et al. (1986) referred to the depression associated with PMS as a core symptom of the syndrome, which can be serious enough to warrant hospitalization. Price and his associates described the

biopsychosocial effects of premenstrual syndrome, in which the four days preceding and the first four days of menstruation have been associated with an increase in medical, surgical, and psychiatric hospitalizations, and a rise in both the number and the severity of suicide attempts. Hospital admissions for depressed women increase significantly on the day preceding the first day of menstrual flow. Manic and schizophrenic patients are known to have relapses regularly during the premenstrual period. Some bulimic patients practice binge-eating only during the 7 to 10 days prior to menses.

According to Price et al. (1986), irritability during the premenstrual phase can lead to frequent arguments with loved ones or, more dramatically, to increased child abuse and traffic accidents. Since a woman may experience over 300 menstrual cycles during her reproductive lifetime, PMS potentially is a problem of immense proportions.

Brown and Zimmer (1986b) noted that most studies of premenstrual symptomatology focus on the possible etiology of symptoms, descriptions and classifications of symptoms, correlates of symptoms, and therapeutic interventions. They stated that scientific studies virtually have ignored the impact that premenstrual symptomatology has on the woman's personal life and family functioning.

Brown and Zimmer (1986b) distributed a questionnaire to their audience before an evening lecture on premenstrual syndrome. Their objective was to describe male and female experiences of the personal

and family impact of premenstrual symptomatology. The exploratory study aimed at (a) describing the type of symptomatology experienced by women, (b) describing and comparing men's and women's perceptions of symptoms' frequency, (c) determining the extent of personal disruption and altered family functioning attributed to perimenstrual symptoms, and (d) describing the coping strategies used by men in response to their partners' premenstrual symptoms. From the returns by 83 women and 32 men, content analysis revealed several recurrent themes: (a) increased conflict and disrupted communication among family members, including children, (b) decreased family participation in enjoyable family and social activities, (c) decreased performance of household tasks by the females, and (d) withdrawal and decreased contact among family members. A striking amount of severe life disruptions reportedly occurred among at least half of the female subjects during or prior to their menstrual periods. These reports were supported by their male partners.

Brown and Zimmer (1986b) also explored the impact of PMS symptomatology as it relates to the mother's role. They noted that because of the pivotal role of the mother, family cohesion is disrupted significantly when she suffers from PMS. Of particular concern was the group of women who reported symptoms of loss of control, child battering, self-injury, and increased accidents. These behaviors have implications for individual and family health as well as for the well-being of society. The presence of these behaviors raises questions regarding clinical interventions that may contribute to these women's

efforts to cope more constructively with premenstrual symptoms. Brown and Zimmer (1986b) concluded that a need exists for more in-depth and careful documentation of the impact of the premenstrual phenomenon.

Consumer Practices Related to PMS

Ginsburg and Carter (1984) provided information about a consumer organization's perspective on the treatment of PMS: PMS Action is a non-profit organization whose mission is to educate laypersons and professionals about PMS. According to Ginsburg and Carter, PMS Action has provided information to 90,000 laypersons and 10,000 physicians and other health care professionals. Necessitated by the lack of recognition of PMS by laypersons and professionals, and lack of effective treatment within the medical community, PMS Action is said to have provided counseling services to more than 2,000 women, and has been instrumental in the development of a list of physicians nationwide who are familiar with and willing to treat PMS. Ginsburg and Carter (1984) concluded that research on PMS clearly is needed; but, in the interim, women must assume a great deal of responsibility for their own health care, and medical professionals have a responsibility to treat women with PMS.

In a pilot study conducted to explore the experiences of women seeking help for PMS, Brown and Zimmer (1986a) suggested that literature directly and indirectly implies that the health care system, and in particular physicians, offer little acknowledgement, understanding, or

assistance to women seeking care for perimenstrual distress. According to Brown and Zimmer (1986a), the literature does not document or evaluate provider responses to cyclical premenstrual problems. They further reported that women in the reproductive age group utilize considerably more physician service (exclusive of utilization due to pregnancy) than men. Reportedly, women also experience greater morbidity, days of illness, and disability than men. Women are reported to be more frequent users of health care than men, and have more interest in health-related issues and information.

Brown and Zimmer (1986a) conducted a pilot study of 83 women who attended a lecture on premenstrual symptoms. The purpose of this study was to describe women's experiences with health care providers when seeking assistance with premenstrual symptoms. The study was designed to determine specific areas appropriate for more in-depth exploration of the interface between women's perimenstrual needs and the response of the health care delivery system. Women were questioned about their experiences when consulting others for assistance with their premenstrual symptoms, and they were asked to rate the services provided by (a) nurses, (b) nurse practitioners, (c) friends, (d) nutritionists, (e) clergy, (f) psychologists/counselors, (g) doctors of osteopathy, (h) chiropractors, (i) psychiatrists, and/or (j) physicians. The women studied were asked to evaluate whether these consultations were positive or negative. Brown and Zimmer (1986a) concluded that nurse practitioners were most frequently positively rated, while physicians

were evaluated most negatively. The majority of the sample felt they were treated disrespectfully and were not taken seriously. Only one-third of women currently in treatment were satisfied with the assistance they were receiving. The researchers further concluded that these data supported the prevalent informal descriptions of widespread dissatisfaction with current health care provider responses to women seeking assistance with premenstrual symptoms.

Frank (1986) reviewed the roles of nurses and nurse practitioners in helping women with PMS. This review described nurses as playing the key role in the management of patients with PMS by participating on interdisciplinary teams for PMS treatment and by providing individual counseling and treatment in solo practice settings. In addition, Frank described the nurse as a provider of information regarding self-help treatment for women with PMS.

Gise (1988) described the availability of treatment for PMS in specialized clinics, and reported that some doctors are confused about therapy approaches to PMS. Specialist PMS clinics have been established with the goals of providing a comprehensive approach to the health care of women with premenstrual complaints. Gise (1988) described the benefits of the establishment of PMS clinics as follows: the name of the clinic allows identification of the facility to potential patients and referral sources; centralization enables all medical and paramedical specialists involved to work together as a coordinated

multi-disciplinary team; and such clinics are said to provide total assessment of each woman complaining of PMS.

In a 1986 study, Alexander et al. evaluated attitudes of health-care providers towards premenstrual symptoms and women who suffer from PMS. The study, conducted in the Grampain Region of Scotland, surveyed 277 general practitioners. One component of the study evaluated the extent to which physicians thought that selected preparations were appropriate methods of treating premenstrual symptoms. In another aspect of the study physicians were asked how successful they felt they were in treating PMS. Alexander et al. (1986) found that the most appropriate methods of treating PMS were thought to be medicines containing progesterone analogues, pyridoxine, and diuretics. Analgesics and psychotropic drugs were considered by more than half of the practitioners to be the least appropriate methods. The majority of the surveyed physicians favored a psychological approach to treatment involving the provision of information and reassurance as their first line of management.

Alexander et al. (1986) reported that how physicians perceive women who complain of premenstrual symptoms is an important matter because it dictates much of what happens to these women. The study revealed that 81% of the physicians believed that they usually were successful in treating PMS patients; generally unsuccessful treatment was reported by 10% of those surveyed; and 9% claimed that they did not have enough experience to judge their success rate (Alexander et al.,

1986).

A thorough review of the literature revealed that studies specific to the providers of care for PMS were almost non-existent. Due to the widespread prevalence of this disorder, further study is needed to determine the extent to which help is being offered to those who seek it. Analysis of demographic characteristics of practitioners is needed to determine if a correlation exists between these factors and the treatment methods that they prefer.

CHAPTER 3

METHODOLOGY

This study examined variables related to the treatment methods preferred by Dallas County physicians for premenstrual syndrome. Discussion in this chapter concerns the following aspects of the study: population and sample, instrumentation, data collection, and treatment of the data.

Population and Sample

The population studied consisted of the 285 practicing obstetricians/gynecologists in Dallas County who were listed in the Dallas County Medical Society's Official 1988 Directory. Physicians were listed in the directory categorically according to specialty. All names listed under "Obstetricians/ Gynecologists" (Dallas County Medical Society, 1988, pp 283-285) were included in the study.

Instrumentation

The instrument used for data collection was the Premenstrual Syndrome Questionnaire, which consists of 11 sections (see Appendix A). The instrument was developed by Alexander et al. (1986), and was used with approved modifications (see Appendix B). Approximate completion time for the instrument was fifteen minutes.

Section 1 of the instrument asked physicians to rate the degree to which they agree/disagree that the physical and psychological changes of PMS result from hormonal variations. Section 2 asked the respondents to choose from a list of symptoms those that they felt to be directly associated with PMS. In section 3, physicians were asked to select the three most commonly reported symptoms of PMS from a provided list of 19 symptoms. Section 4 asked physicians to indicate their opinions concerning the appropriateness of fourteen pharmacologic and nonpharmacologic treatments for PMS. Section 5 requested the physicians to indicate their first, second, and third preferred forms of treatment from among 14 that are specified.

Sections 6 through 10 provided data related to physicians' knowledge, experience, and perceived effectiveness concerning the treatment of PMS. Section 11 provided data related to the following demographic variables: sex, age, and number of years in practice.

Responses were indicated on Likert-type scales. Content validity of the instrument was determined by a previous study (Alexander et al., 1986).

Data Collection

A copy of the Premenstrual Syndrome Questionnaire was mailed to every member of the population. An introductory letter (see Appendix C), in which the importance of the study and protection of confidentiality and anonymity were explained, accompanied each copy of

the instrument. A postage-paid self-addressed envelope for return of the completed instrument was provided for the convenience of each respondent. Also provided with the questionnaire was a printed, pre-addressed postcard (see Appendix D). Respondents could indicate interest in receiving a copy of the results of this study by writing their names and addresses on the cards, and by mailing them separately from the completed questionnaires. A response time of three weeks was allotted, after which follow-up postcards were sent to the entire population (see Appendix E). Completed instruments received by the researcher on or before October 5, 1988 were included in the sample.

Treatment of the Data

The demographic and professional characteristics of physicians who participated in the study were described and tabulated using frequencies and percentages. The chi square test of independence was used to determine whether variances existed between physicians' preferred methods of treatment, as indicated by responses to the questionnaire. Kendall's coefficient of concordance (W) was used to determine whether agreement existed among physicians surveyed in regard to preferred treatments for PMS. Frequencies and percentages were used to provide information about physicians' personal and professional characteristics and their preferred methods of treatment for PMS. Statistical Packages for the Social Sciences (SPSSX) were used in conjunction with the DEC-20/10 computer. Statistical analysis was tested at an alpha of .05

indicating a significant level of probability. Appropriate figures and/or tables were utilized.

CHAPTER 4

ANALYSIS OF DATA

A non-experimental, descriptive study was conducted to examine personal and professional variables among obstetricians/gynecologists practicing in Dallas County who treat women for PMS. The study also examined the treatment methods these physicians preferred to use for their patients who have been diagnosed as having PMS. The Premenstrual Syndrome Questionnaire was used for data collection.

Description of the Sample

Of the 285 obstetricians and gynecologists in the study population, 72 returned questionnaires. These 72 questionnaires were utilized in compiling this data. The entire data collection period lasted from August 29, 1988 to October 5, 1988.

All the respondents were physicians listed in the 1988 Dallas County Medical Society's directory of services under the subheading "Obstetricians/Gynecologists." As indicated in Table 1, 67 of the respondents were male, 3 were female, and 2 chose not to identify their sex. The greatest percentage (46%) of the respondents were found in the age range from 31 to 40 years. The least percentage (1%) of the respondents ranged in age from 20 to 30 years.

The number of years that the subjects had been practicing medicine

Table 1

Respondents' Demographic Characteristics

Variable	<u>n</u>	<u>%</u>
<u>Ages in Years</u>		
20 - 30	1	1.0
31 - 40	33	46.0
41 - 50	13	18.0
51 - 60	20	28.0
61 or over	<u>5</u>	<u>7.0</u>
Total	72	100.0
<u>Sex</u>		
Male	67	93.0
Female	3	4.2
Unknown	<u>2</u>	<u>2.8</u>
Total	72	100.0
<u>Years in Practice</u>		
Fewer than 5	12	17.0
5 - 10	24	33.0
11 - 20	14	19.0
Over 20	<u>22</u>	<u>31.0</u>
Total	72	100.0

varied from fewer than 5 to over 20 years. The greatest percentage (33%) of respondents were found to range in years in practice from 5 to 10 years.

Findings

Questions 1 to 3 of the questionnaire examined etiology and symptomatology of PMS as perceived by the practicing physicians. Question 1 asked the subjects to indicate how strongly they agreed or disagreed that the physical and psychological changes associated with PMS result from hormonal variations. The subjects indicated their responses by placing a check by the appropriate answer. Responses were expressed on Table 2 in frequencies and percentages.

Theories about the association of physical and psychological changes due to PMS, and their relationship to hormonal variations, varied greatly among respondents. Sixty-two (87%) of the respondents agreed that the physical changes associated with PMS result from hormonal variations; 2 (2%) respondents disagreed. Of the respondents, 58 (85%) agreed that the psychological changes result from hormonal variations; 3 (4%) disagreed.

Question 2 asked respondents to indicate all symptoms from a given list that they felt to be directly associated with premenstrual syndrome. Responses to this question are presented in Table 3. Ninety percent or more of the respondents indicated that they believed the following symptoms are directly associated with PMS: abdominal bloating,

Table 2

Respondents' Levels of Agreement that Physical and Psychological
Changes Among Premenstrual Women Result from Hormonal Variations

Variable	<u>n</u>	<u>%</u>
<u>Physical Changes</u>		
Strongly Agree	20	28
Agree	42	59
Neutral	7	10
Disagree	1	1
Strongly Disagree	<u>1</u>	<u>1</u>
Total	71	99
<u>Psychological Changes</u>		
Strongly Agree	21	31
Agree	37	54
Neutral	7	10
Disagree	2	3
Strongly Disagree	<u>1</u>	<u>1</u>
Total	68	99

Note: Responses do not total 72 (100%) because all respondents did not answer question 1.

Table 3

Symptoms Believed by Respondents to be Directly Associated with
Premenstrual Syndrome

Symptom	<u>n</u>	<u>%</u>
Breast Discomfort	63	90
Clumsiness	21	30
Difficulty Concentrating	43	61
Sleep Disturbance	50	71
Generally Out-of-Sorts	57	81
Indecision/Inefficiency	31	44
Moodiness/Irritability	31	44
Painful or Heavy Legs	30	43
Back Pain	34	49
Skin Problems	35	50
Sleepiness/Lethargy	36	51
Stomachache/Cramps	36	51
Constipation	30	43
Tearfulness/Depression	64	91
Tenseness/Uneasiness	57	81
Generalized Lethargy	34	49
Weight Gain/Puffiness	64	91
Abdominal Bloating	66	94
Food Cravings	44	63

Note. Responses do not total 72 (100%) because most respondents indicated more than one symptom.

tearfulness, breast discomfort, and weight gain.

Question 3 asked respondents to identify from a given list the three major symptoms most commonly reported to them by their patients who have PMS. As indicated in Table 4, collectively the respondents indicated that moodiness/irritability, tearfulness/depression, and weight gain/puffiness are the three major symptoms.

Question 4 asked respondents to indicate levels of appropriateness for drugs/treatments for PMS. Frequencies of responses to appropriate uses of the treatment methods are presented in Table 5 on a Likert-type scale, ranging from least appropriate value = (1) to most appropriate value = (5). Diuretics (score = 248), non-steroidal anti-inflammatory agents (score = 247), dietary modification (score = 239), oral contraceptives (score = 225), and natural progesterone (score = 218), received the highest scores (Likert value x frequency = score), indicating that these were considered by the respondents to be the most appropriate treatments for PMS. Bromocriptine (score = 124) and magnesium (score = 134) were considered to be the least appropriate.

Question 5 asked physicians to prioritize preferred methods of treatment for PMS by indicating 1st choice (value = 3), 2nd choice (value = 2), and 3rd choice (value = 1) from a given list. As indicated by the scores (value x frequency = score) on Table 6, diuretics (score = 74) were most frequently chosen as the treatment of choice. Oral Contraceptives (score = 57), pyridoxine (score = 53), non-steroidal

Table 4

Symptoms Most Commonly Reported to Respondents By Patients Who Complain
of Premenstrual Syndrome

Symptom	<u>n</u>	<u>%</u>
Breast Discomfort	17	24
Clumsiness	-	-
Difficulty Concentrating	3	4
Sleep Disturbance	4	6
Generally Out-of-Sorts	16	20
Indecision/Inefficiency	2	3
Moodiness/Irritability	68	43
Painful or Heavy Legs	-	-
Back Pain	-	-
Skin Problems	-	-
Sleepiness/Lethargy	-	-
Stomachache/Cramps	6	8
Constipation	1	1
Tearfulness/Depression	36	50
Tenseness/Uneasiness	9	13
Generalized Lethargy	-	-
Weight Gain/Puffiness	34	47
Abdominal Bloating	18	25
Food Cravings	3	4

Note. Responses do not total 72 (100%) because most respondents indicated more than one symptom.

Table 5

Responses to Appropriateness of Drugs/Treatments for Premenstrual Syndrome

Treatment	Level of Appropriateness					Score
	Least	Neutral			Most	
	1	2	3	4	5	
Analgesics	14	13	20	14	9	201
Bromocriptine	28	23	14	2	-	124
Diuretics	5	5	25	27	10	248
Natural Progesterone	13	8	22	22	7	218
Non-Steroidal						
Anti-Inflammatory Agents	8	9	16	22	17	247
Psychotropics	20	25	13	9	2	155
Pyridoxine	13	13	20	13	12	211
Oral Contraceptives	9	12	18	22	10	225
Multi-vitamins	13	14	22	16	6	201
Anti-Depressants	21	20	16	9	4	165
Group/Individual						
Psychotherapy	13	20	22	10	5	184
Magnesium	27	24	13	5	-	134
Vitamin E	26	17	16	9	2	154
Dietary Modification	9	12	17	15	19	239

Note. Responses do not total 72 (100%) because most respondents indicated more than one treatment.

Table 6

Respondents' Preferred Methods of Treatment for Premenstrual SyndromeSymptoms

Treatment	<u>1st Choice</u>		<u>2nd Choice</u>		<u>3rd Choice</u>		Score
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Analgesics	2	3	3	4	2	3	8
Bromocriptine	-	-	1	1	-	-	2
Diuretics	10	14	13	19	18	26	74
Natural Progesterone	5	7	10	14	14	20	49
Non-Steroidal							
Anti-Inflammatory Agents	12	17	6	9	4	6	52
Psychotropics	-	-	3	4	2	3	8
Pyridoxine	9	13	11	16	4	6	53
Oral Contraceptives	10	14	11	16	5	7	57
Multi-Vitamins	5	7	1	1	1	1	18
Anti-Depressants	3	4	1	1	6	9	17
Group/Individual							
Psychotherapy	1	1	2	3	7	10	14
Magnesium	-	-	-	-	-	-	0
Vitamin E	1	1	1	1	2	3	7
Dietary Modification	11	16	7	10	4	6	51

Note. Responses do not total 72 (100%) because most respondents indicated more than one treatment.

anti-inflammatory agents (score = 52), and dietary modification (score = 51) also were indicated frequently as treatments of choice by the respondents. Magnesium was not chosen at all as a treatment method; and bromocriptine was the second choice of only one physician.

Question 6 asked physicians to indicate the approximate number of patients that they have treated for PMS in the last 12 months. Results are presented in frequencies and percentages on Table 7. Most of the respondents (48, or 67%) had treated more than 20 patients for PMS in the last 12 months.

Question 7 asked the respondents to indicate to which specialty they would refer their patients with PMS. Thirty-eight respondents (53%) indicated they would refer their patients to a specialist in psychiatry, and 28 (39%) indicated they would refer their patients to a specialist in endocrinology (see Table 8).

Question 8 asked physicians if they felt that they generally have been successful in helping those women diagnosed with PMS. Fifty-eight respondents (81%) indicated that they feel they have been successful; 14 respondents (19%) indicated that they do not.

Question 9 inquired if physicians had attended any professional meeting in the past 3 years at which PMS was a topic. Fifty-five respondents (76%) indicated that they had; 17 respondents (24%) indicated that they had not.

Question 10 asked if the physicians had read any books or scientific research articles about PMS within the past 12 months.

Table 7

Number of Patients Treated by Respondents for Premenstrual Syndrome
in the Past 12 Months

Number	<u>n</u>	%
Fewer than 10	9	13
11 to 20	14	20
More than 20	<u>48</u>	<u>67</u>
Total	71	100

Note. Total does not equal 72 (100%) because one respondent did not respond to question 6.

Table 8

Preferred Specialty to Which Respondents Would Refer Patients with
Premenstrual Syndrome

Specialty	<u>n</u>	%
Neurology	0	0
Orthopedics	0	0
Family Practice	2	3
Psychiatry	38	53
Internal Medicine	5	7
Endocrinology	28	39

Note. Responses do not total 72 (100%) because some respondents indicated more than one referral.

Sixty-nine respondents (96%) indicated that they had; 3 respondents (4%) indicated that they had not.

Kendall's coefficient of concordance (W) was used to determine if agreement existed among physicians surveyed in regard to preferred treatments for PMS. As indicated on Table 9, analysis of the data ($\chi^2 = 179.689$, $p < .001$) indicated that highly significant differences exist among the respondents preferred treatments; therefore, Hypothesis 1 was rejected.

Frequencies were used to analyze the demographic characteristics of age and years in practice in relation to the treatment methods preferred by the respondents. Frequencies of responses to appropriate uses of treatment methods by physicians aged 20 to 40 years are presented in Table 10 on a Likert-type scale ranging from least appropriate (value = 1) to most appropriate (value = 5). Non-steroidal anti-inflammatory agents (score = 140), diuretics (score = 125), and dietary modification (score = 121) received the highest scores in this age group.

Frequencies of responses to appropriate uses of treatment methods by physicians aged 41 and 50 years are presented in Table 11 on a Likert-type scale ranging from least appropriate (value = 1) to most appropriate (value = 5). Dietary modification (score = 45), natural progesterone (score = 42), and multivitamins (score = 40) received the highest scores (Likert value x frequency = score).

Table 9

Kendall's Coefficient of Concordance Showing Extent of Agreement
Among Physicians Surveyed Regarding Their Preferred Methods
of Treatment for Premenstrual Syndrome

Treatment	Mean Rank	<u>n</u>	W*	X ²	df	<u>p</u>
		64	.2160	179.689	13	.001
Analgesics	7.98					
Bromocriptine	4.65					
Diuretics	9.80					
Natural Progesterone	8.83					
Non-Steroidal Anti-Inflammatory Agents	9.66					
Psychotropics	5.66					
Pyridoxine	8.32					
Oral Contraceptives	9.00					
Multi-Vitamins	7.96					
Anti-Depressants	6.11					
Group/Individual Psychotherapy	7.27					
Magnesium	4.88					
Vitamin E	5.48					
Dietary Modification	9.40					

Table 10

Responses to Appropriateness of Drugs/Treatments for Premenstrual
Syndrome by Physicians Aged 20 - 40 Years

Treatment	<u>Level of Appropriateness</u>					Score
	Least		Neutral		Most	
	1	2	3	4	5	
Analgesics	5	4	7	11	6	108
Bromocriptine	8	14	8	2	-	68
Diuretics	-	2	17	9	6	125
Natural Progesterone	5	1	14	11	3	108
Non-Steroidal Anti-Inflammatory Agents	1	2	4	16	11	140
Psychotropics	12	13	4	3	-	62
Pyridoxine	2	3	10	10	8	118
Oral Contraceptives	3	5	4	15	6	115
Multi-Vitamins	3	7	12	9	3	104
Anti-Depressants	11	10	10	3	-	73
Group/Individual Psychotherapy	7	6	12	6	2	89
Magnesium	8	14	7	3	-	69
Vitamin E	8	10	7	5	2	79
Dietary Modification	2	5	9	8	10	121

Note. Responses do not total 72 (100%) because most respondents indicated more than one treatment.

Table 11

Responses to Appropriateness of Drugs/Treatments for Premenstrual
Syndrome by Physicians Aged 41 - 50 Years

Treatment	Level of Appropriateness					Score
	Least	Neutral			Most	
	1	2	3	4	5	
Analgesics	5	1	4	2	1	32
Bromocriptine	8	2	3	-	-	21
Diuretics	4	2	2	3	2	36
Natural Progesterone	2	2	3	3	3	42
Non-Steroidal Anti-Inflammatory Agents	2	3	4	2	2	38
Psychotropics	3	4	3	2	1	33
Pyridoxine	3	5	3	2	-	30
Oral Contraceptives	3	4	3	1	2	34
Multi-Vitamins	3	1	3	4	2	40
Anti-Depressants	4	4	3	2	-	29
Group/Individual Psychotherapy	1	5	3	2	2	38
Magnesium	6	4	3	-	-	23
Vitamin E	6	2	4	1	-	26
Dietary Modification	2	-	5	2	4	45

Note. Responses do not total 72 (100%) because most respondents indicated more than one treatment.

Frequencies of responses to appropriate uses of treatment methods by physicians aged 51 years and over are presented in Table 12 on a Likert-type scale ranging from least appropriate (value = 1) to most appropriate (value = 5). Diuretics (score = 94), oral contraceptives (score = 76), dietary modification (score = 73), and non-steroidal anti-inflammatory agents (score = 73) received the highest scores.

Frequencies of responses to appropriate uses of treatment methods by physicians with 0 to 10 years in practice are presented in Table 13 on a Likert-type scale ranging from least appropriate (value = 1) to most appropriate (value = 5). Non-steroidal anti-inflammatory agents (score = 142), diuretics (score = 132), and dietary modification (score = 125) received the highest scores (Likert value x frequency = score).

Frequencies of responses to appropriate uses of treatment methods by physicians with 11 years or more in practice are presented in Table 14 on a Likert-type scale ranging from least appropriate (value = 1) to most appropriate (value = 5). Diuretics (score = 120), dietary modification (score = 114), and non-steroidal anti-inflammatory agents (score = 105) received the highest scores (Likert value x frequency = score).

Summary of Findings

To summarize, this non-experimental, descriptive study was conducted to examine personal and professional variables among

Table 12

Responses to Appropriateness of Drugs/Treatments for Premenstrual
Syndrome by Physicians Aged 51 Years and Over

Treatment	Level of Appropriateness					Score
	Least		Neutral		Most	
	1	2	3	4	5	
Analgesics	4	8	9	1	2	61
Bromocriptine	12	7	3	-	-	35
Diuretics	1	1	6	15	2	94
Natural Progesterone	6	5	5	8	1	68
Non-Steroidal Anti-Inflammatory Agents	5	4	8	4	4	73
Psychotropics	5	8	6	4	1	60
Pyridoxine	8	5	7	3	2	61
Oral Contraceptives	3	3	11	6	2	76
Multi-Vitamins	7	6	7	3	1	57
Anti-Depressants	6	6	6	3	2	58
Group/Individual Psychotherapy	5	9	7	2	1	57
Magnesium	13	6	3	2	-	42
Vitamin E	12	5	5	3	-	49
Dietary Modification	5	7	3	5	5	73

Note. Responses do not total 72 (100%) because most respondents indicated more than one treatment.

Table 13

Responses to Appropriateness of Drugs/Treatments for Premenstrual
Syndrome by Physicians with 0 - 10 Years in Practice

Treatment	Level of Appropriateness					Score
	Least	Neutral			Most	
	1	2	3	4	5	
Analgesics	6	4	8	11	6	112
Bromocriptine	9	14	9	2	-	72
Diuretics	-	2	18	10	6	132
Natural Progesterone	5	1	15	12	3	115
Non-Steroidal Anti-Inflammatory Agents	1	2	6	16	11	142
Psychotropics	12	13	5	4	-	69
Pyridoxine	2	5	10	10	8	122
Oral Contraceptives	3	6	4	16	6	121
Multi-Vitamins	4	7	13	9	3	108
Anti-Depressants	11	10	10	4	1	82
Group/Individual Psychotherapy	7	7	12	6	3	96
Magnesium	9	15	7	3	-	72
Vitamin E	9	11	7	5	2	82
Dietary Modification	3	5	10	8	10	125

Note. Responses do not total 72 (100%) because most respondents indicated more than one treatment.

Table 14

Responses to Appropriateness of Drugs/Treatments for Premenstrual
Syndrome by Physicians with 11 or More Years in Practice

Treatment	Level of Appropriateness					Score
	Least		Neutral		Most	
	1	2	3	4	5	
Analgesics	8	9	12	3	3	89
Bromocriptine	19	9	5	-	-	52
Diuretics	5	3	7	17	4	120
Natural Progesterone	8	7	7	10	4	103
Non-Steroidal Anti-Inflammatory Agents	7	7	10	6	6	105
Psychotropics	8	12	8	5	2	86
Pyridoxine	11	8	10	3	4	89
Oral Contraceptives	6	6	14	6	4	104
Multi-Vitamins	9	7	9	7	3	93
Anti-Depressants	10	10	6	5	3	83
Group/Individual Psychotherapy	6	13	10	4	2	88
Magnesium	18	9	6	2	-	62
Vitamin E	17	6	9	4	-	72
Dietary Modification	6	7	7	7	9	114

Note. Responses do not total 72 (100%) because most respondents indicated more than one treatment.

obstetricians/gynecologists in Dallas County who treat women for PMS. Their preferred methods of treating the condition also have been analyzed. Data obtained from the Premenstrual Syndrome Questionnaire have been analyzed and presented.

According to this investigation, collectively, responding physicians believed all symptoms from a given list to be directly related to PMS. Non-steroidal anti-inflammatory agents, dietary modification and pyridoxine emerged as the treatment methods most frequently felt to be appropriate; however, the physicians' preferred methods of treating PMS varied significantly.

Information about age and years in practice revealed that physicians aged 20 to 40 years believed non-steroidal anti-inflammatory agents, diuretics and dietary modification to be the most appropriate treatment methods; while physicians aged 41 to 50 years believed the most appropriate treatment methods were dietary modification, natural progesterone and multivitamins. Physicians aged 51 years and over more frequently felt diuretics, oral contraceptives, and dietary modification to be the most appropriate treatment methods for treating women with PMS. Physicians who had been in practice from 0 to 10 years believed that non-steroidal anti-inflammatory agents, diuretics, and dietary modification were the most appropriate methods of treating PMS. While those who had been in practice for 11 or more years agreed that these treatments were the most appropriate, they indicated that diuretics and dietary modification were more appropriate than non-steroidal

anti-inflammatory agents.

Most of the physicians studied indicated that they had treated more than 20 women with PMS in the past 12 months. The physicians indicated having read books or scientific articles about PMS in the past year, and they generally felt themselves to be successful in treating this disorder.

CHAPTER 5

SUMMARY, FINDINGS, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

Summary

A non-experimental descriptive study was conducted to evaluate variables related to the treatment methods preferred by Dallas County physicians for premenstrual syndrome. Public awareness of the existence and complexity of PMS has increased greatly over the past decade. It is important that women be informed about the treatment methods available to them, as well as the extent to which health care services are available. Premenstrual symptomatology affects a significant proportion of women during their reproductive years. Growing media publicity has increased women's demands for effective treatment for PMS. As the number of women in the work force increases, so does the search for effective treatment methods. The purpose of this study was to determine if a difference existed among the methods preferred for the treatment of PMS by obstetricians/gynecologists practicing in Dallas County.

Of the 285 obstetricians and gynecologists in the study population, 72 returned questionnaires. These 72 questionnaires were utilized in compiling these data. All of the respondents were physicians listed in the Dallas County Medical Society's Official 1988 Directory under the subheading, "Obstetricians/Gynecologists." The instrument used for data collection was an 11-section questionnaire

developed by Alexander et al. (1986). The instrument was designed to evaluate physicians' perceptions of PMS symptomatology, their preferred methods of treatment, and certain demographic characteristics.

Descriptive statistics were used to analyze the data. Physicians' preferred method(s) of treatment as categorized by specific demographic characteristics were presented in frequencies and percentages.

Kendall's coefficient of concordance (W) was used to analyze the degree of agreement among physicians regarding their preferred methods of treatment for PMS. Frequencies and percentages of physicians' perceptions of symptomatology, preferred methods of treatment, and demographic characteristics were discussed and tabulated.

Findings

Analysis of the data indicates that 93% of the respondents were male. The largest proportion (46%) of the respondents ranged in age from 31 to 40 years. The largest proportion (33%) of the physicians had practiced medicine between five and ten years.

The etiology and symptomatology of PMS were evaluated by asking physicians their perceptions of physical and psychological changes associated with PMS with regard to hormonal variations. The greatest percentage (87%) of physicians felt that the physical changes associated with PMS result from hormonal changes. A similar percentage (85%) agreed that the psychological changes associated with PMS result from hormonal changes.

Findings in this study indicated that 90% or more of the respondents believed abdominal bloating, tearfulness, breast discomfort, and weight gain to be symptoms directly associated with PMS. The physicians indicated moodiness/irritability, tearfulness/depression, and weight gain to be the three major symptoms of PMS.

This study revealed that physicians in the sample believed diuretics, non-steroidal anti-inflammatory agents, dietary modification, and oral contraceptives to be the most appropriate treatments for the symptoms associated with PMS. However, the physicians indicated that they most often choose diuretics, oral contraceptives, pyridoxine, and non-steroidal anti-inflammatory agents when treating PMS.

Analysis of the data from this study revealed that 68% of the respondents have treated more than twenty patients for PMS in the past 12 months. Physicians indicated that referrals to other specialties would include primarily psychiatry and endocrinology.

Additional findings of this study indicated that 81% of the respondents felt themselves to be successful in treating PMS patients. The respondents indicated interest in increasing their knowledge of PMS in that 76% had attended a professional meeting in which PMS was a topic, and (96%) of them had read books or scientific research on PMS in the past 12 months.

The demographic characteristics of age and years in practice were analyzed in relation to the treatment methods believed by the respondents to be most appropriate for treating PMS. Physicians aged 20

to 40 years indicated non-steroidal anti-inflammatory agents, diuretics, and dietary modification to be the most appropriate for treating PMS; those aged 41 to 50 years indicated dietary modification, natural progesterone, and multivitamins; and those aged 51 years and over indicated diuretics, oral contraceptives, dietary modification, and non-steroidal anti-inflammatory agents. Physicians who had been in practice for 0 to 10 years believed the most appropriate treatments for PMS were non-steroidal anti-inflammatory agents, diuretics, and dietary modification. While those who had been in practice for 11 or more years indicated the same treatments, they believed diuretics, and dietary modification to be more appropriate than non-steroidal anti-inflammatory agents for treating PMS.

Discussion

Hormonal variations have been explored by previous research studies as a possible etiology for premenstrual symptomatology (Levine et al., 1985; Price et al., 1986; Reid and Yen, 1981). Inferences made from the findings of this study indicate that the physicians surveyed agreed that both the physical and psychological changes associated with PMS result from hormonal variations. While the etiology of PMS remains largely empiric, the symptoms associated with this syndrome are varied and numerous (Keye, 1985).

Respondents to this study indicated that they most frequently believe abdominal bloating, tearfulness, breast discomfort, and weight

gain to be directly associated with PMS. However, the symptoms most commonly reported to the physicians by their patients who complain of PMS were moodiness, tearfulness, and weight gain. It is interesting to note that differences exist between what physicians perceive to be symptoms of PMS and their patients' most frequent complaints.

The following treatments were recommended most frequently as the first choice of physicians who treat women for PMS: diuretics, non-steroidal anti-inflammatory agents, oral contraceptives, and dietary modification. The large number of women who receive these treatments is indicated by the fact that (67%) of the respondents had treated more than 20 patients for PMS in the past 12 months.

Analysis of the data in this study indicated that the physicians actively had participated in continuing their education about PMS by attending professional meetings in which PMS was a topic, and by reading scientific articles/books about PMS. While variances exist in the preferred methods of treating PMS, the physicians in this study generally felt themselves to be successful in treating the syndrome.

Further analysis of data revealed that the levels of appropriateness for specified treatment methods varied among physicians aged 20 to 40 years, 41 - 50 years, and those aged 51 years and older. The treatment method thought to be most appropriate by physicians with 0 to 10 years in practice varied from that indicated by physicians with 11 or more years in practice.

The treatment methods that respondents preferred varied, and there was little agreement among the physicians as to which treatment methods were most appropriate. However, analysis of responses indicated that they still felt themselves to be generally successful in treating premenstrual syndrome.

Conclusion

The following was concluded as a result of testing the hypothesis at the .05 level of significance: Physicians who treat women for premenstrual syndrome will show no significant variance in their preferred methods of treating the syndrome. Hypothesis 1 is rejected.

Recommendations

As a result of this study, the following are recommended:

1. The information generated by this study may be used as a baseline for health needs assessments and health planning by health educators.
2. The information generated by this study should be used by health educators in consumer health education concerning the practices and preferences of physicians when treating women for PMS.
3. This study should be replicated using a larger sample and a larger geographical area.
4. This study should be replicated using the nonresponding female physicians in order to compare data from them with that of responding

male physicians.

5. This study should be replicated to determine physicians' attitudes towards health/wellness practices versus medicinal treatments for PMS.

6. This study should be replicated to compare the treatment methods preferred by obstetricians/gynecologists to those preferred by other physicians in related medical specialties.

7. This study should be replicated to assess preferred methods of treating PMS among other health care professionals in comparison to those preferred by physicians.

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APPENDIX A

THE PREMENSTRUAL SYNDROME QUESTIONNAIRE

PREMENSTRUAL SYNDROME QUESTIONNAIRE

PLEASE INDICATE YOUR REPLY TO EACH QUESTION BY PLACING A CHECK (✓) IN THE APPROPRIATE SPACE OR BY FOLLOWING ANY OTHER SPECIFIC INSTRUCTIONS GIVEN FOR THAT QUESTION.

1. Many women report a variety of premenstrual physical and/or psychological changes. Given that the exact etiology of these changes remains uncertain, please indicate how strongly you agree/disagree that these changes result from hormonal variations. Please check () only **one** response for each change.

Physical Changes

___ Strongly agree
___ Agree
___ Neutral
___ Disagree
___ Strongly disagree

Psychological Changes

___ Strongly agree
___ Agree
___ Neutral
___ Disagree
___ Strongly disagree

2. Place a check () by **all** symptoms listed below that you feel to be directly associated with premenstrual syndrome.

___ Breast discomfort
___ Clumsiness or proneness to
 accidents
___ Difficulty in concentrating
 or remembering things
___ Sleep disturbances
___ General "out of sorts"
 feelings
___ Indecision or inefficiency
___ Moodiness/irritability/
 aggressiveness
___ Painful or heavy legs

___ Back pain
___ Skin problems
___ Sleepiness or lethargy
___ Stomach ache
 or cramps
___ Constipation
___ Tearfulness or
 depression
___ Tenseness or general
 uneasiness
___ Generalized lethargy
___ Weight gain or
 puffiness
___ Abdominal bloating
___ Food cravings

3. In your experience, what are the **three** major symptoms most commonly reported by those who complain of premenstrual syndrome. Check only 3 symptoms.

<input type="checkbox"/> Breast discomfort	<input type="checkbox"/> Back pain
<input type="checkbox"/> Clumsiness or proneness to accidents	<input type="checkbox"/> Skin problems
<input type="checkbox"/> Difficulty in concentrating or remembering things	<input type="checkbox"/> Sleepiness or lethargy
<input type="checkbox"/> Sleep disturbances	<input type="checkbox"/> Stomach ache or cramps
<input type="checkbox"/> General "out of sorts" feelings	<input type="checkbox"/> Constipation
<input type="checkbox"/> Indecision or inefficiency	<input type="checkbox"/> Tearfulness or depression
<input type="checkbox"/> Moodiness/irritability/aggressiveness	<input type="checkbox"/> Tenseness or general uneasiness
<input type="checkbox"/> Painful or heavy legs	<input type="checkbox"/> Generalized lethargy
	<input type="checkbox"/> Weight gain or puffiness
	<input type="checkbox"/> Abdominal bloating
	<input type="checkbox"/> Food cravings

4. The following types of drugs/treatments have been recommended for treatment of PMS symptoms. Whether or not you prescribe them, please indicate how appropriate you think they are for treatment. Please indicate your response by **circling** the number which represents the degree of appropriateness you ascribe to each treatment.

<u>Treatment</u>	Least Appropriate			Most Appropriate	
Analgesics	1	2	3	4	5
Bromocriptine	1	2	3	4	5
Diuretics	1	2	3	4	5
Natural Progesterone	1	2	3	4	5
Non-Steroidal Anti-Inflammatory Agents	1	2	3	4	5
Psychotropics	1	2	3	4	5
Pyridoxine	1	2	3	4	5
Oral Contraceptives	1	2	3	4	5
Multi-Vitamin/Mineral Supplements	1	2	3	4	5
Anti-Depressants	1	2	3	4	5
Group/Individual Psychotherapy	1	2	3	4	5
Magnesium	1	2	3	4	5
Vitamin E	1	2	3	4	5
Dietary Modification	1	2	3	4	5

5. From the list below, please write the NUMBER of the **three** forms of treatment or combinations that you prefer in the space indicating your first, second, and third choices.

- | | |
|--|---|
| <input type="checkbox"/> FIRST CHOICE | 1. Analgesics |
| <input type="checkbox"/> SECOND CHOICE | 2. Bromocriptine |
| <input type="checkbox"/> THIRD CHOICE | 3. Diuretics |
| | 4. Natural Progesterone |
| | 5. Non-Steroidal
Anti-Inflammatory
Agents |
| | 6. Psychotropics |
| | 7. Pyridoxine |
| | 8. Oral Contraceptives |
| | 9. Multi-Vitamin/Mineral
Supplements |
| | 10. Anti-Depressants |
| | 11. Group/Individual
Psychotherapy |
| | 12. Magnesium |
| | 13. Vitamin E |
| | 14. Dietary Modification |

6. Approximately how many patients have you treated for PMS in the past 12 months?

- ☐ Fewer than 10
☐ 11 to 20
☐ More than 20

7. Generally speaking, if you refer women with PMS to a practitioner of another specialty, which specialty would you prefer. (Please check all applicable responses.)

- | | |
|--|--|
| <input type="checkbox"/> Neurology | <input type="checkbox"/> Psychiatry |
| <input type="checkbox"/> Orthopedics | <input type="checkbox"/> Internal Medicine |
| <input type="checkbox"/> Family Practice | <input type="checkbox"/> Endocrinology |

8. Do you feel that you are generally successful in helping those women diagnosed with PMS?

- ☐ Yes
☐ No

9. During the past **3 years**, have you attended any professional meeting(s) at which PMS was a topic?

___ Yes
___ No

10. Within the past **12 months**, have you read any book or scientific/research article(s) about PMS?

___ Yes
___ No

DEMOGRAPHICS

Please place a **check** () by your responses to each of the following:

Your sex:

___ Male
___ Female

Your age:

___ 20 to 30
___ 31 to 40
___ 41 to 50
___ 51 to 60
___ 61 or over

Number of years in practice:

___ Fewer than 5
___ 5 to 10
___ 11 to 20
___ Over 20

I am extremely grateful for your help. All responses to this questionnaire will be kept confidential. Please place your completed questionnaire in the stamped envelope. If you would like a summary of the results of this study, please fill in your name and address on the attached 3 x 5 card and return it separately from the questionnaire so that the anonymity of your responses will be maintained. The summary will be sent to you this fall.

APPENDIX B

APPROVAL LETTER

UNIVERSITY OF ABERDEEN

Tel No 681818 extn
S.T.D. Code 0224

52479



DEPARTMENT OF MENTAL HEALTH
UNIVERSITY MEDICAL BUILDINGS
FORESTERHILL, ABERDEEN AB9 2ZD

DAA/SCW

18 January 1988

Mrs L Shaffer
5117 Stanley Drive
The Colony
Texas 750056

Dear Mrs Shaffer

I am enclosing a copy of our questionnaire, which I hope you will find helpful in your own project.

Thank you for explaining so clearly your needs and for agreeing to give us full credit for this document. Also, we will welcome receiving your own results when they become available. They might make the basis of a very interesting comparison with those which we obtained here in Scotland.

Good luck with your work.

Yours sincerely

A handwritten signature in black ink, appearing to be 'D.A. Alexander', written over the typed name.

Dr D A Alexander
Senior Lecturer in Mental Health

cc Dr R Taylor
Miss I D Forsyth

APPENDIX C

INTRODUCTORY LETTER

5117 Stanley Drive
The Colony, Texas 75056
August 29, 1988

Dear Physician:

Under the direction of Dr. Leah Kaplan, Dr. Ruth Tandy, and Dr. Sharon Underwood of the department of Health Education at Texas Woman's University, I am conducting masters research concerning variables related to the treatment methods preferred by Dallas County physicians for premenstrual syndrome. A similar study has been conducted by Dr. D. A. Alexander at the University of Aberdeen, Foresterhill, Aberdeen, Scotland.

Your knowledge and experience in the management of premenstrual syndrome is needed in completing this research. This study was designed to examine personal and professional variables among obstetricians/gynecologists practicing in Dallas County who treat women for PMS. In addition, to determine which treatment methods are preferred for patients diagnosed as having PMS.

This questionnaire will be mailed to obstetricians and gynecologists whose names are listed in the Dallas County Medical Society's 1988 Directory. I hope that you will participate in the study by placing a check mark by the letter that indicates your response to each question. Please respond to all questions. The questionnaire has been designed to require about fifteen minutes of your time.

Please return the questionnaire by September 15th in the postage-paid return envelope which has been provided for your convenience. Responses are strictly confidential.

Thank you for your prompt attention and professional contribution.

Sincerely,



Glinda Shaffer

GS/mah

Enclosures

APPENDIX D

POST CARD

Yes, I am interested in receiving a copy of the results of this study.
Please mail the results to:

(please print)

APPENDIX E

FOLLOW-UP POST CARD

On August 29, 1988, a questionnaire was mailed to you concerning the treatment methods preferred by Dallas County Physicians for premenstrual syndrome.

If you have not completed the questionnaire, please do so and return it in the postage-paid envelope provided; or return it to the addressee on the reverse of this card by October 5, 1988.

Your professional opinion is important to the success of this endeavor.

If you no longer have the questionnaire, please notify me and another will be sent to you.

Thank you for your time and assistance.

Glinda Shaffer
Graduate Student