A Study of the Knowledge and Understanding of Menstruation and Premenstrual Syndrome (PMS) Among Women In Manitoba

by

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A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of

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ABSTRACT

A study of the knowledge and understanding of menstruation and premenstrual syndrome (PMS) was conducted on a volunteer group of 43 women in Manitoba, Canada. All women were subject to intensive interviews of approximately 2 hours duration. Statements on menstruation and PMS were compiled from the interviews and these statements were utilized to generate consensus questionnaires. Consensus analysis, a technique used to explore the knowledge of individuals in a particular cultural domain, was conducted on the questionnaire data.

The results of the study indicated that a majority of women in the sample perceived menstruation slightly positively, although there was a relatively high percentage of women with extremely positive attitudes (10 women or 23.8 per cent). Of the 43 women, 32 (74.4 per cent) reported that they experienced PMS.

In terms of consensus analysis, women with PMS were found to be divided into two groups. The identification of two different groups reinforced the suggestion that PMS is framed quite differently among women who experience it. One of the criteria for division into two groups was the presence of emotional changes as opposed to physical changes with depression constituting a major component in the emotional group. While there was agreement within the PMS groups, a consensus was not found in terms of menstruation, in general, except among two subgroups: the extremely positive group and the emotional PMS group. These two groups differed in many areas, particularly the way in which they conceptualized the changes occurring around menstruation and the way in which they viewed womanhood in today's society.

ACKNOWLEDGEMENTS

This study would not have been possible without the participation of the 43 women who so willingly volunteered their time and who provided such interesting and important data. My sincere thanks go out to these women.

I would also like to express my gratitude to the members of my committee. To my advisor, Dr. Dwight Rokala, I extend my heartfelt thanks for all his guidance and support throughout all the different phases of the doctoral process, and for the countless hours he spent reading and revising the thesis. As well, I would like to thank Dr. David Stymeist and Dr. Dawne McCance for their helpful comments and support. The contribution of the external member of my committee, Dr. Gretchen Chesley Lang, is also greatly appreciated. Her comments, particularly in the area of narrative analysis, and her expertise, in the anthropology of illness, proved to be extremely valuable. Thanks are also extended to Dr. Linda Garro who was instrumental in developing my research proposal.

Last but not least, I would like to thank friends and family members who supported me throughout this lengthy process. I could not have completed this study without your patience and your constant encouragement.

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Chapter 1

Introduction

Menstruation is usually described as a recurrent process that most women experience during their lifetime; a common and expected part of life for a woman. It occurs, on average, every 28 days beginning in childhood (sometimes as early as eight years of age) and ceasing anywhere from the late 30s to the late 50s. It is a normal, natural process.

How do women perceive this normal, natural occurrence? Judging from the following excerpts from a group of women[1] who volunteered for a study on menstruation and premenstrual syndrome, attitudes vary dramatically.

Mary: "I love it. I just love it because I feel it's like a cleansing."

Shelby: "I hate it, I hate it. It's still embarrassing for me."

Jody: "Pain, cramps, premenstrual tension, anxiety and I can hardly wait for menopause (laughter)."

Holly: "Blood (laughter). Strength, health, women."

Jackie: "Pain, and sometimes relief. It means I'm not pregnant (laughter). Actually, creativity, vivid dreams as well."

Rosemarie: "It's very special to be able to have that cycle . . . it's all part of the fertility and what it means to be a woman."

These responses form part of a research project to examine the knowledge and understanding of menstruation and premenstrual syndrome (PMS) among women living in Manitoba. Forty-three women volunteered to be interviewed on varied aspects of the menstrual cycle and they provided a substantial amount of material on these topics.

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[1] All names used in reference to the participants in the study are pseudonyms.

There were two main objectives in the study: the primary goal was to collect as much information as possible on menstrual attitudes and experiences and to understand the meaning of premenstrual syndrome. The other main objective of the project was to determine through consensus analysis whether a cultural understanding of menstruation and PMS was shared among a group of women living in Manitoba. This research on women's health is oriented within the field of medical anthropology, exploring issues of health and illness from a combined cultural/biological perspective.

While the collection of data on menstruation was a primary focus, information on PMS, a label of relatively recent origin, was also central to the project. In popular discourse PMS tends to be regarded as a distinct entity used to describe distressing psychological and somatic symptoms (e.g. moodiness, irritability, depression, breast tenderness, fluid retention) which occur up to two weeks prior to the menstrual period.

Reference to this condition, described initially as Premenstrual Tension (PMT), first appeared in the biomedical literature in 1931 in a paper by Robert Frank. He stated that PMT occurred in women who "complain of a feeling of indescribable tension from 10 to seven days preceding menstruation, which, in most instances, continues until the time that the menstrual flow occurs. These patients complain of unrest, irritability, "like jumping out of their skin" and a desire to find relief by foolish and ill considered actions" (1931: 1054).

Looking at early research into PMT is a fascinating study in itself. One of the most revealing case histories is that provided by Israel (1938:1722) about a woman, aged 34, who was diagnosed with PMT of seven years duration. The discourse used to frame this woman's situation is noteworthy: Israel reported that normally the patient is "a quiet, industrious, mild

mannered woman" but 10 days prior to her period, she becomes "an irritable, restless, irascibly shrewish creature" with headache and insomnia. In addition, her history revealed that she was twice divorced, and that she had two abortions, one pregnancy and a vaginal plastic operation (not detailed). The woman was also referred to as a nymphomaniac. The diagnosis now seems curious given the multitude of problems this individual experienced.

Two medical practitioners, Raymond Greene and Katharina Dalton (1953:1008), renamed the group of symptoms "premenstrual syndrome" due to their observation that tension was only one of the many components of the syndrome. Their symptom list included both psychological and somatic symptoms such as headache, nausea, irritability, depression, lethargy, vertigo, rheumatism, rhinorrhoea (thin, watery discharge from the nose), asthma, epilepsy (petit mal and grand mal) and mastalgia (painful breasts). The authors commented that the reference to premenstrual syndrome was unsatisfactory since the constellation of symptoms occurred, in some cases, throughout the cycle. Despite this, PMS as a label specifying distressing premenstrual and menstrual symptoms has persisted and it is commonly used today in both the popular press and in research publications.

Two important questions were considered in relation to PMS in this study: Has PMS been accepted by a majority of women as a way to explain changes which occur one to two weeks prior to the period? Is the understanding of PMS framed in the same way among women? These questions were addressed not only from the perspective of women who experienced PMS, but also from women who did not place their changes within this particular label.

Results of the study indicate that PMS is not described in the same way by all women

and point to some of the difficulties associated with labelling these changes as a syndrome, a discrete medical entity. Clearly PMS represents a complex assortment of emotional and physical changes experienced in totally different ways by women. This variability suggests that PMS should not only be studied from a biomedical viewpoint, but more consideration should be given to the cultural component, e.g. the perception of changes associated with the menstrual cycle, which may interact with the experiential aspect and have an influence on the labelling of PMS as an illness.

There is little agreement on the precise definition to be applied in PMS research or upon the parameters necessary for a diagnosis of PMS. The enigmatic nature of PMS can be seen in the definitional guidelines agreed upon by delegates to an interdisciplinary conference in 1984:

> Premenstrual syndrome (PMS) can be defined as the occurrence of mildly-to-severely disruptive physical and/or psychological symptoms, recurrent in association with the premenstrual phase of the menstrual cycle. Further delineating features include: extent of functional disruption created by symptoms; degree of freedom from symptoms during the post-menstrual baseline period; and the degree of responsiveness to specific etiologically-inferred ameliorative measures.
>
> (Ginsburg and Carter, 1987: 3)

Specific symptoms are not referred to in the guidelines. In fact, over 150 symptoms, both somatic and psychological, have been recorded for PMS (Appendix A). In addition, the assessment of symptom severity varies across studies with criteria ranging from mild symptoms to those which cause functional disruption. A further complicating factor is timing which can encompass both the premenstrual and menstrual phases. As different

researchers use different definitional criteria, they are not directly comparable.

Further confusion is evident in the designation of severe PMS as a psychiatric disorder. Premenstrual Dysphoric Disorder (PMDD) is listed in the current edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994). The definition of PMDD centers on symptom clusters which are associated with dysphoria. Dysphoria, according to the definition in a psychiatric dictionary, has a number of meanings: dejection, disaffection, unhappiness and dissatisfaction with life or self. Mood or emotional states are emphasized and it is not necessary for an individual to report any physical symptoms for a diagnosis of PMDD. The DSM specifies that the common disorder PMS should be distinguished from PMDD. The requirements for PMDD (listed in Appendix B) are more stringent than for PMS in that five symptom clusters must have occurred over the year prior to diagnosis. In addition, the disturbance must seriously interfere with work, school or social activities. Diagnosis of the disorder must be confirmed by prospective ratings for at least two cycles. The designation of PMS and PMDD complicates the labelling issue. In general, if PMS is defined as a normal condition experienced by most women (prevalence figures range from 4 to 95 per cent), which is based on a combination of bodily and psychological symptoms, PMDD with its focus on dysphoria and altered states of the mind is termed abnormal.

To date, clinical and research results are inconclusive in the determination that PMDD constitutes a mental disorder. However, criteria for further research are located in the appendices of the DSM-IV under Criteria Sets and Axes provided For Further Study. PMDD is also listed in the main text as an example of a depressive disorder (Figert, 1996).

Some researchers comment on the controversial aspect of PMS as there is no consistent definition and a wide variety of symptoms leading to the conclusion that PMS should be dismantled (Bancroft et al. 1993). At a recent symposium of psychologists in Britain, the majority held the view that "the concept of PMS was no longer useful" (Bancroft, 1995: 786) and that problems in this area must be formulated differently in order to more effectively help women with severe premenstrual and menstrual complaints. To say that PMS should be dismantled is provocative and appealing, but it is not an easy task once the condition has become established as a common entity in sociocultural terms and in the biomedical literature.

The research documented within the pages of this dissertation represents one and a half years of study into the way in which a volunteer sample of women living in Manitoba view menstruation and premenstrual syndrome. Briefly, a majority of these women perceived menstruation slightly positively, although there was a relatively high percentage of women with extremely positive attitudes (23.8 per cent of the sample). This positive subset held definite views about what it meant to be a woman in today's society and they used various strategies to deal with changes prior to and during menstruation.

A majority of women in the study experienced PMS (74.4 per cent). Most of these women were self-diagnosed, either they had heard about PMS from friends or from the popular media. The high prevalence of this "diagnosis" supports the idea that, for these women, PMS is an acceptable way to characterize changes which occur prior to and during menstruation. However, the responses to questions concerning PMS varied considerably within this group.

The results presented herein will be utilized to highlight the conclusion that, even though menstruation is a common female physiological process with a varied experiential component, it is very much influenced by cultural perceptions and attitudes in society toward women themselves.

RESEARCH PROBLEM

This research project is based primarily on the way in which women perceive both their menstrual cycle and PMS. The goal of this research is to collect as much information as possible on the meaning of menstruation and the framing of PMS from the perspective of women themselves. If women are reporting that they experience severe and troublesome symptoms, there is no reason to question their experience, but it is necessary to examine their attitudes to menstruation and their perceptions of changes associated with the menstrual cycle. Some recent studies (e.g. Jarvis and McCabe, 1991; Woods et al. 1992; Hall, 1994; Cumming et al. 1994) have also stressed the importance of women's conceptualizations of menstruation and PMS.

Two questions will be addressed in this study:

(1) How do women conceptualize menstruation and PMS in Manitoba? What attitudes are prevalent in this cultural setting?

(2) Is there consensus among women in terms of their knowledge and understanding of premenstrual and menstrual changes?

Some research has been done on the way in which the cultural component affects the perception of menstruation (Ruble and Brooks-Gunn, 1979; Brooks-Gunn and Ruble 1980,

1987; Scambler and Scambler, 1985; Martin, 1987; Buckley and Gottlieb, 1988; Fitzgerald, 1990; Jarvis and McCabe, 1991; Woods et al. 1992). In terms of menstrual cycle conceptualization and designations of health and illness, literature is not as abundant (see Woods, 1986; Woods et al. 1992; Scambler and Scambler, 1993 for preliminary research), although some work has been done on the subject of menopause (Kaufert, 1982, 1986; Lock, 1993).

The information generated in this project will add to the work which has been done previously on menstruation. Research has been conducted on the knowledge and understanding of women in different cultures (Gottlieb, 1988, the Ivory Coast; Delaney, 1988, Turkey; Lawrence, 1988, Portugal; Appell, 1988, Borneo; Fitzgerald, 1990, Samoa; Snowdon and Christian, 1983, WHO study) and some studies have focused on Canadian and American women specifically (Ruble and Brooks-Gunn, 1979; Brooks-Gunn and Ruble, 1980; Woods, Dery and Most, 1982a, 1982b; Martin, 1987; Erickson, 1987; Woods et al. 1992; Jurgens and Powers, 1991; Kaufert, 1986; Kaufert, Gilbert and Tate, 1992; Lock, 1993). Some research has also been done on menstrual attitudes of teenage girls in Canada (Morse and Kieren, 1993) and the United States (Koff, Rierdan and Sheingold, 1982); on menstrual attitudes portrayed in advertising (Berg and Block Coutts, 1994; Block Coutts and Berg, 1993); and on recollections of menarche (Woods, Dery and Most, 1982b; Pillemer et al. 1987; Chrisler and Zittel, 1997).

Chapter 2

Review of the Literature

The menstrual cycle has been the subject of considerable study, although analysis varies significantly depending on the research perspective. In addition, premenstrual syndrome has been the topic of extensive investigation, much of the research stemming initially from a biomedical viewpoint. Sociocultural analyses of PMS are a more recent occurrence and both approaches will be addressed in this section.

This review is organized in the following way: the labelling issue, dealing with the many and varied definitions of PMS, will be addressed first. Secondly, a summary of the menstrual cycle will be presented to familiarize readers with the underlying physiology as part of the biomedical overview. The final two sections will incorporate information on biomedical research of PMS as well as the socio-cultural component of research on the menstrual cycle and on premenstrual syndrome.

Labelling Issues

Premenstrual syndrome has been defined in many different ways and one of the major problems in PMS research is the comparison of studies which utilize different definitions. Given this ambiguity it is not surprising that there is a proliferation of labels. Table 2.1 presents some of the labels appearing in the literature since 1980.

TABLE 2.1: LABELS AND DEFINITIONS

LABEL	DEFINING CHARACTERISTICS	SOURCE
Premenstrual syndrome PMS	continuous process with a variety of manifestations; reflects one pathophysiologic process	Jorgensen, Rossignol and Bonnlander, 1993
Premenstrual syndrome (s) PMS	not symptom-specific disorder; mood state facilitated not caused by menstrually related biologic changes	Rubinow and Schmidt, 1989
Premenstrual syndrome PMS	reflects the operation of a biologic trigger in the context of susceptibility to the destabilization of mood state	Rubinow, 1992
Perimenstrual symptoms referred to as PMS or PS	symptoms in either the premenstrual or menstrual phases	Woods et al. 1992
Premenstrual symptoms	changes which occur during the menstrual cycle -- mild to moderate	Brooks-Gunn, 1986
Premenstrual syndrome PMS	severe symptoms which disrupt daily life	Brooks-Gunn, 1986
Premenstrual aggravation	symptoms always present; aggravated premenstrually	Backstrom and Hammarback, 1991
Pure PMS	symptoms only during premenstruum; absence during follicular phase	Backstrom and Hammarback, 1991
Premenstrual tension syndrome PMTS	moderate to severe psychological and physical symptoms occurring during premenstruum	Steiner, Haskett and Carroll, 1980
Premenstrual changes PMC	any recurring symptom occurring one to seven days prior to period; timing is main criterion	Halbreich, Holtz and Paul, 1988
Premenstrual disorder PMD	criteria listed above with the addition of symptoms of such severity as to disrupt daily life	Halbreich, Holtz and Paul, 1988
Premenstrual tension	symptoms appearing in premenstruum divided into subgroups:	Abraham, 1981
PMT-A	anxiety, irritability, nervous tension	
PMT-H	weight gain, water retention, breast pain	
PMT-C	increased appetite, craving for sweets	
PMT-D	depression, withdrawal. lethargy, confusion	
Late luteal phase dysphoric disorder LLPDD	strict criteria for dysphoric states; can include somatic symptoms	DSM-IIIR (1987)
Premenstrual dysphoric disorder PMDD	same as above	DSM-IV(1994)

An examination of this table illustrates the lack of consensus evident in the literature. The first three labels referring to PMS reflect the designation of the disorder as disease-oriented. The first definition (Jorgensen, Rossignol and Bonnlander, 1993) characterizes PMS as a continuous process with a wide variety of manifestations based on one underlying pathophysiologic process. According to this criterion, the potential for PMS exists in all women with some individuals suffering from the disease more than others. The disease focus is evident in the next two definitions in that a biologic trigger (Rubinow, 1992) and menstrually related biologic changes (Rubinow and Schmidt, 1989) imply an underlying biological problem, although mood state is emphasized in both these descriptions.

At this point definitions increase in complexity and labels begin to change. The term perimenstrual symptoms (Woods et al. 1992) refers to symptoms which occur, not only during the premenstrual phase but throughout the cycle. Brooks-Gunn (1986) uses premenstrual symptoms to designate mild changes occurring throughout the cycle in contrast to premenstrual syndrome which refers only to severe symptoms which cause disruption in daily life.

Backstrom and Hammarback (1991) agree basically with the suggestion that symptoms occur throughout the cycle, however, they use the term premenstrual aggravation to refer to symptoms which become more severe during the premenstrual period. "Pure PMS" indicates symptoms which occur only during the premenstruum, but which disappear at the time of menstruation (also noted by Steiner, Haskett and Carroll, 1980; Abraham, 1981). The presence of symptoms throughout the cycle or only during the premenstrual phase is a confusing issue.

Attempts to incorporate severity add another layer of complexity. Halbreich, Holtz and Paul (1988) refer to premenstrual change as any symptom which recurs cyclically one to seven days prior to menstruation and which disappears at the beginning of the cycle. Changes may not be problematic in all cases and the term premenstrual disorder (PMD) refers only to those changes severe enough to disrupt daily life, although these changes must occur prior to menstruation. Premenstrual change is used to define a normal condition (similar to the use of premenstrual symptoms by Brooks-Gunn) while PMD is designated as an abnormal one.

The final two definitions in Table 2.1 attempt to define severe somatic and psychological symptoms which represent a psychiatric disorder, initially labelled as Late Luteal Phase Dysphoric Disorder (LLPDD) in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IIIR, 1987) and currently known as Premenstrual Dysphoric Disorder (PMDD) in the DSM-IV (1994). In placing PMDD in the DSM, researchers are making a distinction between PMS which includes both somatic and emotional symptoms and PMDD, basically considered an affective disorder and defined as a mental illness. As noted in Appendix B, the requirements for PMDD are more stringent than for PMS. The inclusion of PMDD in the DSM has created considerable controversy in that mood change is linked to the reproductive cycle which establishes the disorder as gender-specific (Gallant and Hamilton, 1988; Stoppard, 1992; Caplan, McCurdy-Myers and Gans, 1992; Caplan and Caplan, 1994; Figert, 1996).

The problem of labelling is exacerbated further by the different perspectives employed by researchers in this area. A major division occurs between those interested in

the biomedical foundation of the disorder and those who are more concerned with cultural and social influences on the perception of premenstrual and menstrual change.

A Summary of Menstrual Cycle Physiology

Since much of the biomedical research on PMS centers on its categorization as a discrete medical disease it is important to focus on the hormonal influences of the hypothalamic-pituitary-ovarian system. In order to understand the rationale relating to this perspective, a description of female reproductive physiology will be presented. A brief summary of this process may help to simplify the discussion of change in relation to normal menstrual cycle variation (sources include Demarest, Crowley and McGuire, 1989; Yen, 1991; Boston Women's Health Book Collective, 1992; Seeley, Stephens and Tate, 1992).

The menstrual cycle consists of a 28 day cycle on average with a range from 20 to 36 days. The cycle reflects the operation of the hypothalamic-pituitary-ovarian system in which the hypothalamus, the part of the brain which controls involuntary processes, signals the pituitary, a gland situated below the brain, which then signals the ovaries. Feedback occurs from the ovaries to both the hypothalamus and the pituitary. These chemical messages are carried by sex hormones (estrogens (estradiol and estrone), progestins, androgens and inhibins) which circulate in the blood. Changes occur in target tissues, in particular, the ovaries, the uterus and the breasts (see Table 2.2 on page 14).

The cycle consists of four phases: follicular, ovulatory, luteal and menstrual. The first day of bleeding is day 1 of the cycle, the beginning of the menstrual phase; the follicular phase occurs on days 5 to 13; ovulation day 14; the luteal phase, days 15 to 28 (all days

TABLE 2.2: MENSTRUAL CYCLE HORMONES

HORMONE	SOURCE	TARGET	RESPONSE
GnRH	hypothalamus	pituitary	promotes secretion of FSH and LH
FSH	pituitary	ovary	follicle development
LH	pituitary	ovary	promotes ovulation
estrogen	ovary	uterus	growth of endometrial cells
		breasts	development of duct systems in mammary glands
		pituitary	decrease in FSH and LH secretion
		hypothalamus	decrease in GnRH
		body tissues	secondary sex characteristics
progesterone	ovary	uterus	secretion of fluid for nourishment of embryo
		breasts	development of mammary glands
		pituitary	decrease in LH and FSH secretion
		hypothalamus	decrease in GnRH
		body tissues	secondary sex characteristics
inhibin	ovary	pituitary	decrease in FSH

are approximate, for example, ovulation can occur within the range of days 13 to 15). The levels of circulating gonadotropins (sex steroids) differ during these phases with the lowest levels present during the early follicular phase.

The gonadotropins, FSH (follicle-stimulating hormone) and LH (lutineizing hormone), are secreted by the pituitary in the follicular phase. These hormones are important for follicle growth. Levels of ovarian estrogen and inhibin rise due to the release of FSH and as these levels rise, they inhibit the secretion of FSH and promote LH secretion which is essential for ovulation. Prior to ovulation, FSH levels fall, LH levels rise. An LH surge occurs at ovulation, estrogen peaks the day before this surge and plasma levels of progesterone and androgens rise.

At ovulation, the follicle releases the egg and becomes a corpus luteum. Under the influence of LH, the corpus luteum secretes decreasing amounts of estrogens and increasing amounts of progestins. LH declines as the levels of progestins increase. If fertilization occurs, levels of estrogens and progestins are maintained throughout pregnancy to allow nourishment for the uterine lining (estrogen causes the lining to grow and progesterone is necessary for secretion of substances to nourish the embryo). If the egg is not fertilized, the corpus luteum changes to a corpus albicans. During the luteal phase, estrogens and progestins decline and inhibin is released which suppresses FSH secretion. This decline causes the arteries and veins in the uterus to close. Prostaglandins (hormone-like acidic lipids) build up during the luteal period. Some of these substances are responsible for uterine contractions which govern the shedding of the endometrium. The menstrual flow occurs, inhibin ceases and FSH levels begin to rise. (see Figure 2.1 on page 17 for a diagram

of the hypothalamic-pituitary-ovarian system).

Changes in the menstrual cycle occur in response to the levels of sex steroids within the body. The level of estrogens is an important factor in the production of other hormones, particularly release of GnRH (gonadotropin releasing hormone). Information on the role of GnRH is relatively recent, much of it derived from nonhuman primate studies. It is thought that when estrogen falls to a low level, negative feedback to the brain occurs and the hypothalamus secretes GnRH. This hormone regulates the pituitary secretions of FSH, LH and prolactin (a hormone necessary for milk secretion in the breasts). The pulsatile nature of FSH, LH and GnRH has recently been emphasized as these hormones are not released continually, but in bursts. As the GnRH pulse increases, hormonal secretions of FSH and LH also increase. Recent research has concentrated on the effect of ovarian steroids and neurotransmitters on GnRH release, much of the evidence deriving from animal studies.

Physiological changes occur throughout the menstrual cycle as a result of differing hormonal levels. Due to this variation, estrogen and progesterone have been implicated in PMS causality. However, hormone levels in the blood vary among women with values ranging in the luteal phase from 19.0-45.0 nmol/L for progesterone to 699-1250 pmol/L for estradiol (O'Malley and Strott, 1991). In some women, pain and water retention may be symptomatic of premenstrual changes due to the action of prostaglandins and prolactin respectively, although much of this is speculative. It is not clear whether psychological symptoms, such as depression, anxiety, mood swings and other emotional states are related to variations in ovarian hormonal levels during the menstrual cycle.

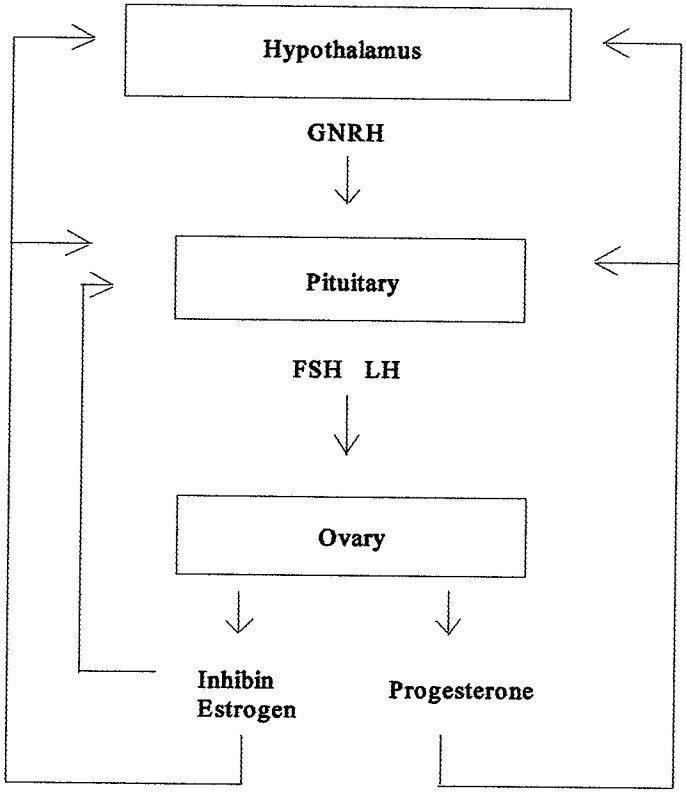

Figure 2.1: Hypothalamic-Pituitary-Ovarian System

The gonadotropins, FSH and LH, are the link between the hypothalamus and the ovary.
Estrogen rises in response to FSH and feeds back to the pituitary to inhibit FSH secretion and promote LH production in the follicular phase.
Progesterone rises in response to LH and feeds back to the pituitary to inhibit LH secretion in the early luteal phase.
Inhibin has a feedback effect on FSH in the luteal phase.
Levels of estrogen and progesterone fall in the late luteal and feed back to stimulate GnRH production in the hypothalamus. This promotes FSH production in the pituitary.

Hormonal influence on the menstrual cycle is evident from the above description. The biomedical emphasis to define premenstrual problems as an imbalance or a malfunction in the hormonal system is understandable within this context. Indeed, this line of inquiry was the initial one pursued in early biomedical research and it continues to be an area of considerable debate.

Biomedical Research

In the biomedical literature, PMS is commonly referred to as a disease (e.g. Dalton, 1984). The underlying medical model which specifies that changes related to female biological processes result in both somatic and psychological symptoms, is based on the inference that female hormones are the causal link to PMS. However, simple monitoring of basal hormonal levels does not provide evidence with which to diagnose the disorder.

Diagnosis relies, for the most part, on self-reporting of symptoms which occur prior to the period. However, at a 1983 National Institute of Mental Health Conference, guidelines were adopted which specified that symptom intensity should change by at least 30 per cent in the premenstrual period (6 days prior to menses) compared to the intermenstrual period (5 to 10 days of the cycle) for two consecutive months (Blume, 1983). The determination of a 30 per cent increase still relies on a symptom rating from the patient plus an evaluation by the researcher. This method of diagnosis tends to be used in the study of PMDD, not the more common disorder of PMS and is not used by all researchers.

PMS research has focused on "gonadal steroid dysequilibrium" (Rubinow et al., 1988: 5) with emphasis on an excess of estrogen (Frank, 1931; Backstrom et al. 1976), a

deficiency of progesterone (Israel, 1938; Backstrom et al. 1976) or a problem with the estrogen/progesterone ratio (Greene and Dalton, 1953; Dalton, 1984). Results are contradictory. Normal levels of estrogen have been found in PMS sufferers (Andersch et al. 1979; Rubinow et al. 1988) as well as normal levels of progesterone (Andersch et al. 1979; Rubinow et al. 1988). Backstrom et al. (1983) found no difference in the levels of progesterone and estrogen in women who experienced both high and low degrees of mood change premenstrually.

In terms of an imbalance in the ratio of estrogen and progesterone, Dalton (1984) relates it specifically to the way in which estrogen binds to proteins in plasma. She has focused on SHBG (sex hormone binding globulin) which binds not only estrogen (estradiol), but testosterone. Dalton suggests that low SHBG levels are responsible for PMS. Less binding occurs which allows higher levels of unbound estrogen to circulate in plasma, leading to lower progesterone production and more estrogen in the luteal phase of the cycle. Unbound estrogen is assumed to be the most biologically active part (Backstrom et al. 1976).

Significantly lower SHBG levels in PMS patients were reported in a study done by M. Dalton in 1981. However, a previous study done in 1976 (Backstrom et al.) found no difference in SHBG levels (they referred to this binding globulin as TeBG, testosterone-estradiol binding globulin). While their study reported an increase in plasma estrogen levels in the PMS group, they did not relate this to the binding capacity of TeBG. Rubinow et al. (1988) also studied levels of TeBG and, while they noted a phase-related variation in TeBG levels, they did not find increased levels of estrogen in the PMS subjects.

Results are sparse and inconclusive.

Dalton prescribes progesterone treatment for patients in her PMS clinics in Britain based on her belief that the administration of progesterone raises the low SHBG levels. This treatment relieves symptoms in many of her patients. The apparent improvement may be due to the effect progesterone has as an analgesic/sedative (O'Brien, 1987; Rubinow et al. 1988; Lewis, 1992) and not to a correction of the estrogen/progesterone ratio. Clinical trials which have been done using progesterone and placebo indicate that progesterone is no better than placebo in relieving symptoms associated with PMS (Sampson, 1979; Andersch and Hahn, 1985; Maddocks et al. 1986), although a study by Dennerstein et al. (1985) reported that symptoms such as anxiety, depression, stress, swelling and hot flushes (only five out of 22 symptoms) improved with progesterone.

Research focusing on the suppression of sex steroids has also been conducted. Muse et al. (1984) used a GnRH agonist, leuprolide acetate, to induce a medical ovariectomy in patients with severe PMS. The study found that the symptoms diminished in intensity, although there were other risk factors involved, particularly the occurrence of osteoporosis. Suppression of gonadal steroids is considered a radical treatment for PMS.

In a more recent study, Schmidt et al. (1998) used the same GnRH agonist to suppress gonadal steroids in a group of 20 women with severe PMS and 15 women who did not experience it. In 10 of the PMS sufferers, symptoms went into remission during ovarian suppression. The 10 PMS women plus the control subjects then took part in a double blind crossover study in which estradiol and progesterone were administered in addition to continued leuprolide treatment. The PMS sufferers had a reoccurrence of symptoms while

there was no change among the women without PMS. The authors concluded that "normal plasma concentrations of gonadal steroids can trigger an abnormal response - deterioration of mood state - in susceptible women" (p. 216). Symptoms that reoccurred were sadness, anxiety, bloating, impaired function and irritability. However, the researchers could only state that changes in gonadal steroids early in the cycle appeared to be correlated with premenstrual symptoms only for some women who experienced severe PMS.

In an editorial in the New England Journal of Medicine, Mortola (1998) supported the research of Schmidt et al. (1998) and noted that PMS is probably the result of a complex interaction between ovarian steroids and central neurotransmitters, although the exact mechanism has not been identified.

Prolactin, a hormone secreted by the pituitary, has also come under scrutiny in PMS as it is a substance which targets the breasts, specifically in terms of milk production during pregnancy. Breast tenderness and enlargement have been cited as symptoms of PMS. Rubinow et al. (1988) found no difference in prolactin levels between PMS sufferers and control subjects. Bromocriptine, a dopamine agonist which suppresses prolactin release, has been used to treat PMS. It appears to be effective only in symptoms associated with the breasts (Reid and Yen, 1981; O'Brien, 1987; Severino and Moline, 1989). Estrogen may also affect breast tenderness and enlargement (Reid, 1989).

Prostaglandins, hormone-like substances which stimulate the muscles of the uterus to produce contractions, have been implicated in PMS as high levels are found in the luteal phase and decline during menses. Abdominal pain is reported by PMS sufferers, however, cramping is a symptom which is most often associated with dysmenorrhea. Prostaglandin

inhibitors (e.g. mefenamic acid) have been used to treat dysmenorrhea as they reduce uterine contractions (Tucker and Whalen, 1991). There is no evidence to suggest that these drugs are effective in reducing PMS symptoms (Reid, 1989).

Neurotransmitters have also been the focus of research as it is thought that ovarian hormones influence endogenous opiate activity within the brain. Endogenous opiates (e.g. beta endorphin) affect hypothalamic function (Reid, 1989) and have a morphine-like action on the brain. It is thought that ovarian hormones exert feedback effects on GnRH via endorphins. Due to a decline in ovarian steroids there could be a withdrawal effect as high levels of endogenous opiates may lead to a form of temporary addiction. Premenstrual symptoms such as irritability and aggression may originate from withdrawal (Facchinetti et al. 1994). It has also been suggested that endogenous opiate activity may result in increased appetite (Severino and Moline, 1989; Reid, 1989).

Serotonin is another neurotransmitter which has been implicated in PMS. Serotonin increases due to the ingestion of carbohydrates (Fernstrom and Wurtman, 1971). Abnormal serotonin metabolism has been linked to depressive states (Rapkin, 1992) and carbohydrate craving (Fernstrom and Wurtman, 1971; Wurtman, 1993). In a study on menstrual symptoms and vulnerability factors, Bancroft et al. (1993) studied 366 women with different complaints (menorrhagia, PMS and dysmenorrhea) in comparison to a control group. Depression, neuroticism, food craving and clumsiness were found to be more common and severe symptoms in the PMS group. There was a strong association between depression and neuroticism, while clumsiness was associated with depressed mood. Food craving appeared independent of mood. Bancroft et al. maintain that food craving is related to serotonin

activity in the brain, specifically the lack of serotonin during the premenstrual phase (Bancroft, Cook and Williamson, 1988).

To support the serotonin connection, Steiner et al. (1995) completed a clinical trial involving fluoxetine (Prozac) and severe PMS, Premenstrual Dysphoric Disorder. Prozac is a drug used in serotonin dysregulation and it is referred to as a selective serotonin reuptake inhibitor (Barondes, 1994). It has been used as an effective treatment of women with LLPDD, Late Luteal Phase Dysphoric Disorder (Pearlstein and Stone, 1994). In a randomized clinical trial of 313 women, 180 who completed the protocol (Steiner et al. 1995), it was found that Prozac at a dose of 20 mg. per day reduced symptoms, in particular, tension, irritability and dysphoria. Serotonin has not been directly associated with PMS causality, other than through similarity of PMS symptoms to endogenous depression (Rapkin, 1992). Also, the exact role of Prozac in serotonin regulation is not known as there are 14 different serotonin receptors in the brain (Barondes, 1994). It should be remembered that the women treated with Prozac were diagnosed with severe PMS, the entity listed as a psychiatric disorder.

Some research has been done on the differentiation of endogenous depression and menstrually related mood disorders. Mortola et al. (1989) reported that the presence of biochemical markers and the use of prospective psychometric evaluations suggested that depression in PMS was distinct from endogenous depression. Roy-Byrne et al. (1987: 393) thought that the two disorders might "share an underlying pathophysiologic substrate", but that the exact relationship was unclear. The authors of both articles emphasized the need for more research on depression and PMS.

Social, Psychological and Cultural Orientations

Although cross/cultural research has been done on menstruation, the majority of PMS studies have been conducted within North America and England. It seems more relevant, at this point, to emphasize studies within a western context in view of the fact that my research is oriented to an examination of the link between menstruation and PMS within a Canadian setting (there will, however, be a brief discussion of some PMS studies with a cross/cultural focus).

Menstrual Cycle Research

The Menstrual Attitude Questionnaire (the MAQ) was developed in 1980 by Brooks-Gunn and Ruble in response to suggestions in the medical literature that negative fluctuations, physical and psychological, were associated with the menstrual cycle. Prior to this, Parlee (1974) had made the comment that negative stereotypic beliefs concerning menstruation were responsible for much of the reporting of Premenstrual Syndrome. Brooks-Gunn and Ruble (1980) constructed the MAQ from original research conducted on American college students who responded to a questionnaire concerning attitudes in four areas: "beliefs about physiological concomitants of menstruation; styles of dealing with menstruation; menstrual-related effects on performance; and general evaluations of menstruation" (1980: 504). The results were factor analyzed and five dimensions identified: menstruation as debilitating; menstruation as bothersome; menstruation as natural; anticipation and prediction of menstruation; and denial of menstrual effects.

Their results indicated that while some women perceived menstruation as negative,

others regarded it as natural. However, menstruation was still considered bothersome (60 per cent perceived it as slightly bothersome). One-third of the women sampled felt menstruation was debilitating and some women denied that there were any effects of menstruation.

Scambler and Scambler (1985) studied attitudes toward menstruation in a sample of 79 women aged 16-44. They placed the subjects in three categories: acceptance (25 per cent), fatalism (27 per cent) and antipathy (48 per cent). In the acceptance category, menstruation was regarded as normal, thought to be healthy or feminine, while in the antipathy category, there was a major dislike of menstruation and very negative feelings were expressed. In this group there was a higher proportion who experienced menstrual distress. Sixty-three per cent of their sample had not consulted a doctor for over one year and among this group 50 per cent conceptualized menstruation as either an existing health problem or a potential health problem.

The results from the research above contrast with a study by Woods et al. (1992) who found that only 14 per cent felt that they were sick or ill when experiencing menstrual symptoms. Positive effects were also noted: affirmation of fertility (38 per cent), cleansing effects (21 per cent), affirmation of normalcy (20 per cent), affirmation of femininity (8 per cent), affirmation of health (7 per cent), enhanced self awareness (5 per cent), symptom relief (4 per cent), increased energy (2 per cent), and improved sex life (1 per cent).

In a major study of menstruation involving extensive interviews of 165 American women, Emily Martin (1987) noted that the menstrual experience was no longer private, in effect, there was a clash between the public and private worlds. A general cultural model,

that menstruation was inextricable from life, both public and private, was evident. It was perceived to be a hassle, messy and dirty, although, in a more positive context, it defined them as women. Martin examined this cultural model of menstruation in relation to the model employed by the medical establishment, that of menstruation as a failure in terms of reproduction. Martin's intent was to assess how working and middle-class women incorporated the medical model in their explanation of menstruation. She noted that middle-class women relied more on the medical model than did the working class women who explained it more as a life experience: how they felt about it and, in general, how they accepted it.

One of the most interesting aspects of this study revolves around the idea of the body and the self. Martin was struck by the focus on bodily processes as experiences which happen to oneself. Women felt that they had little or no control over these processes, for example, uterine contractions. In this connection, Martin makes an interesting comment in terms of the influence of culture:

> The realization that statements about uterine contractions being involuntary are not brute, final, unquestionable facts but rather cultural organizations of experience came to me as a sudden and complete change of perspective (p. 10).

This prompted Martin to explore women's statements in a more complex way and to focus on the underlying cultural assumptions about the menstrual process. Nevertheless, she argues that culture should not be thought of as predominant and researchers should strive for an understanding of how culture and biology interact in order to assess these experiences.

Jarvis and McCabe (1991) argue a similar point, that biology is only one part of the

picture when examining menstruation. Women do not experience their menstrual cycle in a passive way; they try to make sense of this process. This relates to the way menstruation is viewed within a cultural setting and the way it is experienced within this setting by women. What shapes this experience? Jarvis and McCabe noted in their study of 71 women between the ages of 18 to 28, external events and physical condition influenced the experience of negative moods. If weight gain occurs due to water retention, for example, a woman may be irritable and anxious especially if she is overly concerned about appearance. To Jarvis and McCabe, this perception arises from the way females are depicted in society. The emphasis on physical attractiveness must preclude any sign of the menstrual experience itself. A complex interaction between culture and biology is evident in this type of experience and the authors state that: "the menstrual experience culminates from the psychological interpretation of body events, made within a cultural context which has specific messages about women's place within society" (1991: 659).

Two main beliefs appear to be associated with menstruation in American studies: the idea that it is essential for femininity or womanhood and that it is unclean or dirty (Erickson, 1987; Martin, 1987; Jurgens and Powers, 1991). Ruble and Brooks-Gunn (1979) proposed the idea that because bleeding itself has a negative connotation (the result of either injury or illness), the blood loss associated with menstruation is also viewed in this way. Cultural beliefs also influence the perception that psychological fluctuations are tied to hormonal patterns and they point to the way in which information is processed as playing a large part in the assessment of underlying negativity especially in terms of mood (Ruble and Brooks-Gunn, 1979). Since menstruation is marked by bleeding and activities which involve

increased hygiene, the occurrence of other events or experiences at the same time may be linked in one's mind. They assert that the belief in negative symptomatology is biased by association with the cycle.

The Tampax Report (Research and Forecasts Inc.) released in 1981 was an extensive study of women's attitudes and beliefs. One thousand and thirty-four women between the ages of 14 to 65+ were surveyed by telephone. Eighty-seven per cent thought that women were more emotional when menstruating; 25 per cent felt that menstruation affects a women's ability to think; 30 per cent reported that women should restrict their activities while menstruating (a small sample of the results recorded). Menstruation was not considered to be a topic which should be discussed openly.

This negativity and emphasis on restriction was also evident in a more recent study on menstrual knowledge done in 1991 by Jurgens and Powers. They interviewed 13 head start mothers in the United States and recorded a number of prohibitions which were in place to determine women's behaviour. For example, women avoided exercise, cooking, gardening, socializing and sexual intercourse. Menstruation was thought to function in terms of pregnancy and it existed to cleanse the body of impurities. The results of the study were extremely interesting as unusual things were noted: e.g. a woman avoided walking on cold, hardwood floors in bare feet. Numerous euphemisms were used for menstruation, including "the curse", "the problem", "red flag days" and "my friend". The research was exploratory and the authors stated that not enough study on menstrual attitudes had been done on women in the United States.

Many different terms have been compiled for menstruation: some negative ones

include "the plague", "weeping womb", "I fell off the roof" and "I've got the misery" (Golub, 1992). Positive expressions have also been noted: some of these being "celebrating", "safe again", "I've got my flowers" and "woman's friend" (Golub, 1992). "Safe again" is an interesting reference and reflects the ambiguity inherent in attitudes towards the menstrual cycle (Miles, 1991). The occurrence of menstruation itself signifies that pregnancy has not occurred which can be perceived as both a relief and a disappointment (e. g. "weeping womb").

PMS Research

In 1968, the Menstrual Distress Questionnaire (MDQ) was compiled which assessed menstrual complaints and delineated premenstrual symptoms specifically (Moos, 1968). The questionnaire was given to a group of women (839 women, the wives of graduate students) who responded to questions about menstrual cycle complaints. The original derivation of the symptoms provided to the women came via previous literature and from a menopausal index. The questionnaire was scored retrospectively and women were asked to recall their symptoms at three different times: premenstrually, menstrually and intermenstrually. From this study, Moos listed 47 symptoms and grouped these within eight clusters: 1) pain; 2) concentration; 3) behavioural change; 4) autonomic reactions; 5) water retention; 6) negative affect; 7) arousal; 8) control.

Moos stated that approximately 30 to 50 per cent of young married women experienced premenstrual and menstrual symptoms. In terms of differentiating between the premenstrual and menstrual phases, Moos found significant differences in terms of age in

his sample. Older women experienced more premenstrual symptoms, particularly in the areas of concentration and behavioural change, although only five per cent of the women in the sample were over 35 years of age. Younger women reported more menstrual symptoms in each of the eight symptom clusters. Premenstrual correlations were also noted between longer menstrual flow and symptom intensity on the pain, concentration, water retention and negative affect scales and between symptom intensity and irregular cycles on the pain, water retention and negative affect scales.

The MDQ was an important step in the establishment of menstrual cycle disorders as it codified an entity known as PMS. However, the sample was selective (young, married women, wives of graduate students) and the instrument was retrospective (Parlee, 1974). The MDQ is used by some researchers, others use different measurement instruments, for example, the Premenstrual Assessment Form (Halbreicht et al. 1982) and the Premenstrual Tension Syndrome Rating Scales (Steiner, Haskett and Carroll, 1980). Nevertheless, the symptom lists used by researchers are based on the symptoms derived, in part, from the MDQ.

Prior to the establishment of the MDQ, studies had been done on PMS. For example, in 1957, a study by Pennington was conducted in the United States. It cast a very wide symptom net for PMS and reported a prevalence figure of 95 per cent. Individuals were assessed with PMS if they reported suffering from one or more symptoms, symptoms which included dysmenorrhea, acne and general aches. The criteria for PMS were dependent on the self-reporting of as little as one symptom. In addition, the symptom list was broad and symptoms overlapped those of other disorders (dysmenorrhea, for example). Severity was

not recorded so there was no recognition that individual tolerance levels might vary as well.

Some researchers have attempted to be more rigorous in determining prevalence figures. In a more recent study by Rivera-Tovar and Franks (1990), the criteria for PMDD (at that time, it was known as the Late Luteal Phase Dysphoric Disorder) was used to assess 217 young university women. They found that 4.6 per cent could be categorized as suffering from LLPDD. The more stringent criteria provide a lower prevalence figure, however, LLPDD or PMDD is classified as a psychiatric disorder and is considered to be a much more severe form of PMS.

Current research on PMS in Canada, the United States and Britain has concentrated on identifying emotional complaints in conjunction with physical symptoms. Corney and Stanton (1991) surveyed 658 women in England, all PMS sufferers who responded to an ad requesting volunteers for a study. Sixty per cent of the sample fit the category of chronic sufferers and 48 per cent had visited a doctor within the past year specifically for PMS. The five most common symptoms were irritability, tension, painful breasts, tiredness and depression. Psychological symptoms were considered to be the most distressing. Sixty per cent reported negative feelings toward menstruation and 55 per cent of the sample stated that PMS had a major effect on their relationship with their spouse. Since the sample was selected and retrospective, it provides information about PMS sufferers, although how many would conform to strict definitional guidelines is impossible to determine.

Woods et al. (1992) conducted a community based random sample of 656 American women (514 completed the study), and found that 55 per cent experienced one or more symptoms which they termed moderately or extremely distressing, although this was based

on retrospective reporting. Of these, 43 per cent most frequently reported a symptom cluster referred to as turmoil and this included hostility, tension, anger, anxiety, mood swings, irritability, guilt feelings, impatience, depression, feeling out of control and tearfulness. Fifty-three per cent used an explanatory model of problematic hormones to account for the distress. Since nearly half of the women surveyed reported either no symptoms or ones which were mildly distressing, the authors concluded that "being distressed by symptoms is not a universal experience" (1992: 431).

In a Canadian study, Hall (1994) employed intensive interviews in her examination of 16 PMS sufferers. Her goal was to understand PMS from the perspective of women's perceptions of the PMS experience, viewing it as an objective reality. Her study focused on women's beliefs, explanations and knowledge sources. Information sources which were noted as important ranged from the popular media (magazines, T.V. programs) to trusted individuals (friends and relatives). Hormones were thought to be a factor in terms of causality in addition to stress and worry. Most women believed that ability, social activities and motivation were affected negatively in the premenstrual period.

Cumming et al. (1994), in another Canadian study, used textual analysis to explore women's responses to an open-ended question on premenstrual change, part of the Premenstrual Assessment Form (PAF). An analysis of the 261 responses indicated that distinctions were made by women in terms of their description of changes and their description of responses to the changes. The authors concluded that it was the responses to the changes which were crucial to understand as women commonly described their experience as "a liminal state in which the self is observed, objectified and reacted to; a

paradoxical "identification with" and "disassociation from" the body as self" (p. 40). They also acknowledged that questionnaires could be modified to better investigate the relationship between cultural constructs and the premenstrual phase.

In studies involving selected samples of PMS sufferers in Britain, correlations were noted between negative mood and the premenstrual phase. Sanders et al. (1983) found a correlation between symptoms and premenstrual phase in a comparison of PMS sufferers and a control group: the PMS group experienced feelings of depression, tension, fatigue, irritability, breast tenderness and swelling, but the non PMS group, while experiencing significant change physically, did not experience mood changes. In a large volunteer sample (5,457 women), Warner and Bancroft (1990) noted a high correlation between those who felt they were PMS sufferers and their reporting of mood symptoms, the most common being irritability, anger, tension and mood swings.

Belief in the classic menstrual mood shift (pleasant affect in the ovulatory phase; negative affect in the premenstrual and menstrual phase) persists despite significant argument to the contrary (Clare, 1985; Fausto-Sterling, 1985; Martin, 1987; Delaney, Lupton and Toth, 1988; Caplan and Caplan, 1994; Nicolson, 1995). In research by Slade (1984), 118 British women were studied to ascertain if negative emotions changed either premenstrually or menstrually. She found that there was no difference in negative affect, although physical symptoms peaked premenstrually and menstrually. The study was eight weeks in duration and the subjects were not aware that the research topic was PMS. In an earlier study involving a sample of 30 volunteers in England, May (1976) stated that 50 per cent experienced increased depression yet 40 per cent had their happiest moods just prior to

menstruation.

McFarlane, Martin and Williams (1988) found that Canadian women (two groups of 15) recalled mood swings yet did not experience this difference when filling out daily reports. Ainscough (1990) noted similar results in a study of 51 women in England who filled out daily records. When asked to report retrospectively, 70 per cent stated that they experienced premenstrual tension, while data from the daily records indicated that 7.8 percent experienced negative affect. Ainscough suggested that there is a "widespread cultural belief that premenstrual negative affect is part of a women's normal experience" (p. 43). Van den Akker et al. (1995) studied 121 American women divided into three groups: PMS complainers, a possible PMS group and a non PMS group. Their data revealed that the PMS groups, while they reported premenstrual changes retrospectively, did not substantiate it in their daily ratings. The PMS groups were found to have similar symptoms to the non PMS group.

Lahmeyer, Miller and Deleon-Jones (1982) found no evidence of mood patterns, although water retention was significant (noted previously by Wilcoxon, Shrader and Sherif, 1976). McFarlane, Martin and Williams (1988) reported no difference in negative mood fluctuations between two groups of women (one using oral contraceptives and one normally cycling) in comparison to a group of males, however, positive mood fluctuated for the normally cycling women in the follicular and menstrual phase. However, sample size was small in these three studies: 11; 3 groups of 11; 3 groups of 15, respectively.

Studies have also examined PMS and its relationship to social stress. Beck, Gevirtz and Mortola (1990) looked at 25 PMS sufferers over a three month period and concluded

that stress did not predict symptom severity. Seventy-eight women were studied by Fontana and Palfai (1994) to assess the effect of stressors, appraisal and coping. Fontana and Palfai concluded that factors such as the way in which women perceived stress and how they coped with it were more important than an increase in stress itself. Their study supported the idea that perception of stressful life events is thought to be experienced differently in some women due to menstrual cycle physiology.

In terms of the cultural and biomedical literature, it is evident that a variety of opinions on the nature of PMS exist. Studies which have been conducted on PMS, however, are difficult to compare. Clinical samples are used in some studies while others rely on participants who are self-diagnosed. The studies are not consistent in definition or terminology. A major issue is the use of retrospective versus prospective questionnaires to measure symptomatology and to assess an individual's response to these changes.

Studies have reported that when individuals are asked to recall premenstrual and menstrual experiences (experiences which have also been recorded prospectively), the recalled experiences are more distressing than the daily recordings indicate (Englander-Golden et al. 1986; McFarlane, Martin, and Williams, 1988; McFarland, Ross and DeCourville, 1989; Ainscough, 1990; Van den Akker, 1995). Problems have also been noted in recall of menopausal symptoms (Kaufert, Gilbert and Hassard, 1988). Recall discrepancy has been considered a major issue in PMS studies (McFarlane, Martin and Williams, 1988), particularly if the goal of the research is to compile frequency data on the most common symptomatology and to assess the prevalence of the disorder among women.

Closely related to the recall problem are the expectations of women who participate

in PMS studies. It has been shown that women who believed they were premenstrual reported more symptoms, for example, more physical symptoms (Ruble, 1977), more emotional and physical complaints (Brooks, Ruble and Clark, 1977; AuBuchon and Calhoun, 1985; Klebanov and Jemmott, 1992) and more negative moods (Olasov and Jackson, 1987). In addition, the emphasis on cycle phase has the potential to set up a study demand which is fulfilled by the subjects (Ruble, 1977).

Cross/cultural studies have also been conducted on PMS. One of the earliest studies was done by Janiger, Riffenburgh and Kersh (1972) comparing six cultural groups: American, Japanese, Nigerian, Apache, Turkish and Greek. The most common symptoms were lower abdominal pain, irritability and fatigue and they concluded that premenstrual distress was a universal phenomenon. However, the groups were not comparable in size or in selection, retrospective recording was utilized and there were some translation difficulties. The symptom list was based on western studies and it is not clear how these were interpreted by the different cultural groups.

In a study on Nigerian women, Adenaike and Abidoye (1987) reported that 68.4 per cent experienced true PMS. They relied on subjects self-reporting of cyclicity and severity was not taken into account. The most common complaints were swelling of the breasts, painful breasts and irritability.

The link between tea consumption and PMS was assessed in a study on women in China (Rossignol et al. 1989). The authors concluded that 52 per cent of the study population suffered from PMS. They noted the association with tea consumption and prevalence, but only for those who consumed 4 to 8 drinks a day. They stated, however, that

this could be related to fluid retention. Two different groups of women were studied, nursing students and factory workers. It is difficult to know which symptoms were the most important as only the three most common symptoms were listed for the nursing students: breast swelling and tenderness, tiredness and anxiety.

In contrast to the cross/cultural research, Johnson (1987) has commented that PMS is a culture bound syndrome specific to western culture and is associated with the changing status of women and role conflicts.

> PMS provides a basis for a structural realignment in sex roles by encapsulating the cultural stereotype of women, defining women as potentially irresponsible only some of the time, providing a legitimate label for a previously deviant status and asserting that irrational thoughts and incapacitating physical symptoms relate to a medically treatable entity. By defining women as potentially "in control" of heretofore devalued constitutional characteristics, PMS "negotiates" access to power in a way which indirectly legitimates the changing status of women without directly threatening or destroying the structural status quo. (p. 350)

Rather than focusing on the biological base of PMS, Johnson's analysis highlights the social and cultural context of PMS. It is a way women negotiate their changing status as both family care-givers and career women within western cultural settings.

The use of the PMS label as a cultural and/or social construct has also been suggested in the literature (Martin, 1987; Fitzgerald, 1990; Rodin, 1992). The association of particular states or feelings (e.g. moodiness, anxiety) with normal female physiological processes may contribute to a construction of PMS as part of what it means to "be a woman". Part of "being a woman" in this construction is to have less control over emotional

states. Acceptance of PMS may be linked to the way in which women are viewed within society both in terms of their role and in relation to the medical system.

Emily Martin (1987) has examined descriptions of female biology in current medical discourse through an analysis of textbooks used in university and hospital settings. Martin suggests that the dominant biomedical view is one which depicts menstruation as failed reproduction. This negative image is dispersed throughout the medical establishment and it is this message which is passed on to female patients.

Within a social and cultural context, premenstrual syndrome has been explained in various ways. Socialization has been implicated in PMS in that premenstrual and menstrual discomfort is thought to be a learned phenomenon associated with social expectancies of menstrual distress (Aubuchon and Calhoun, 1985). The impact of socialization may be connected to the idea that age is important in the acceptance of PMS. It has been thought to be more prevalent among women in their 30s and 40s (Moos, 1968; Golub and Harrington, 1981; Dalton, 1984; Golub, 1992), although Woods, Dery and Most (1982a) found that women aged 31 to 35 years reported fewer symptoms than women 18 to 25 years of age.

PMS has also been designated as a more socially acceptable illness than depression (Corney and Stanton, 1991), particularly if the explanation of PMS is hormonally-based. This linkage provides a reasonable justification for symptoms which violate social norms (Hall, 1994). Culpepper (1992) refers to PMS as a survival strategy in that it is a socially condoned time to relieve stress. The suggestion has also been made that women who experience family and interpersonal problems may perceive more distressing premenstrual and menstrual symptoms (Slade, 1984).

The presence of PMS has also been related to the existence of structural inequalities within society (Martin, 1987). For example, anger expressed in the context of premenstrual distress is a legitimate response to situations women face, both in the workplace and at home. Since this violates the normal conception of femininity, anger is acceptable if placed within PMS. Related to this, is the suggestion by Johnson (1987) that PMS is a culture-specific illness.

It has also been linked to the presence of negative attitudes to menstruation (Scambler and Scambler, 1985; Corney and Stanton, 1991). Brooks-Gunn and Ruble (1980) found that in women who filled out the Menstrual Attitude Questionnaire, the debilitation and prediction scales related to the presence of both premenstrual and menstrual symptoms.

PMS has also been given a political dimension (Laws, 1985; Fausto-Sterling, 1985; Stoppard, 1992; Sherwin, 1992), in that it functions as a way in which to restrict the activity of women in the public sphere, in other words, to discriminate against women. Kendall (1992) notes that the establishment of PMS as a medical construct may benefit some individuals, but once labelled, PMS can be used in a negative, political way; it can be invoked to explain and justify women's unequal status (Fausto-Sterling, 1985; Zita, 1988; Sherwin, 1992; Stoppard, 1992). PMS has even been used as a legal defense in the courts. In England, the diagnosis of severe PMS has been invoked in three different murder cases to account for deviant female behaviour. Sentences have been reduced as the court ruled that the women charged in these cases exhibited diminished responsibility due to PMS (Chait, 1986; Kendall, 1992).

A number of issues raised in the review are of particular importance to this research

project:

1) A problem in PMS research is the proliferation of different definitions indicating that PMS means different things to different people, both researchers and laypersons. This confusion over the exact meaning of PMS has led to a myriad of labels being used to denote the varied parameters of this condition. By focusing on the discourse of women, both those who experience PMS and those who do not, it may be possible to gain some insight into ways this problem could be addressed.

2) Research within the biomedical viewpoint focusing on hormonal causation tends to take precedence over an examination of cultural factors which may influence the perception of changes associated with menstruation. Both are important considerations in research on PMS. However recent biomedical analyses indicate that only a small group of women experience severe change which is based on hormonal problems. The widespread use of PMS to include mild to moderate changes, not only severe changes, needs to be investigated within the perspective that cultural influences on the perception of menstrual change may have an impact on the view that these changes are negative and distressing.

3) Much of the research, both biomedical and cultural, has focused on women's recall of symptoms and this self-reporting has been used as a basis for study into PMS. Since there are major problems in the diagnosis of PMS, recall and self-reporting are important to this research. However, a qualitative approach utilizing intensive open-ended interview questions may be a more optimum way to understand how women frame their premenstrual and menstrual experiences. Studies relating to female physiology and health and illness considerations associated with this biological component need to be conducted according

to the needs and concerns of women themselves in order to more fully comprehend the meaning of menstruation and PMS from a female perspective. More exploratory work into menstrual attitudes may help to understand the placement of menstrual changes within an illness designation.

Chapter 3

Theoretical Perspective

Within the field of medical anthropology, considerable analysis has been done on the way individuals explain problematic states (disease and illness) and the way in which they perceive their symptoms. This rests on an understanding quite different from the biomedical view of disease. In biomedical terms, a disease reflects the malfunctioning of an organ or system within the body (Engel, 1977; Eisenberg, 1977). A symptom is viewed as an indicator of this malfunctioning (Chrisman, 1977; Good and Good, 1980). There is a correspondence between symptom and disease and the symptom is a marker for translation into a disease category for both the sufferer and the medical practitioner.

A more comprehensive model has been proposed, the biopsychosocial model of disease (Engel, 1977) as the association between symptom and disease is more complex (Kleinman, 1988). In this reformulation, disease is viewed from the perspective of the patient, the patient's social context and the health system (Engel, 1977). This is an improvement, but Walker (1995) notes that while the model recognizes the impact of social factors, symptom recognition is the baseline from which perception, labelling and treatment arises.

Illness conceptualizations are another way of analyzing disorders and these take into account the patients' explanation of symptoms and the experience of disease (Kleinman, 1978; Kleinman, Eisenberg and Good, 1978). Various frameworks have been proposed: the Explanatory Model (Kleinman, 1978) which includes explanations of etiology, onset of symptoms, pathophysiology, course of sickness and treatment; and the Semantic Illness

Network (Good, 1978; 1994), a more culture-centred approach, in which the interconnections of experience, words, feelings and actions are analyzed from the perspective of the individual in relation to core medical symbols. Emphasis is placed on the meaning of the symptoms or disorder from the individual's perspective in both these formulations. The impetus for the delineation of disease and illness definitions arose from the knowledge that disordered states were viewed differently by practitioners and patients (Kleinman, Eisenberg and Good, 1978). While the social context of the patient was deemed important, social factors in general were not the specific focus.

Definitions of sickness have also been a focus of study in medical anthropology and this concept is associated more with unravelling social and cultural constructs. Sickness has been defined in a number of ways: Frankenberg (1980) states: "If . . . we restrict illness to the making individual of disease by bringing it into consciousness we can use sickness to apply to the total social process in which disease is inserted" (p. 199). According to Young (1982): "Sickness is . . . the process through which worrisome behavioural and biological signs, particularly ones originating in disease, are given socially, recognizable meanings" (p. 270). Kleinman (1988: 6) refers to sickness as the understanding of a disorder in terms of the economic, political and institutional forces, the macrosocial.

A more recent definition is from Hahn (1995):

> . . . sicknesses are unwanted conditions of self, or substantial threats of unwanted conditions of self. . . . Unwantedness comes in degrees, and individuals may have different thresholds regarding just how seriously unwanted a condition must be in order to qualify as sickness. (p. 22)

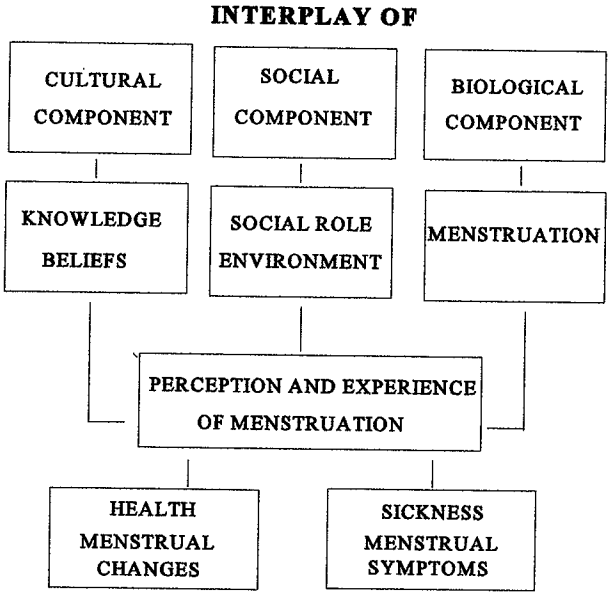

Figure 3.1: Menstrual Cycle Interactions

Due to different perceptions, menstrual variations may be interpreted as changes or as symptoms. This difference in terminology is an important point to consider (Halbreich, Holtz and Paul, 1988 also note this problem in terms of PMS definition, also see Woods, 1986), as this may indicate that a completely different conceptualization has been formulated. Symptoms have been defined as deviations from the norm (Chrisman, 1977) and as indications of an "underlying biological reality" (Good and Good, 1980: 165) in keeping with the disease classification noted previously. This usage, deriving from the clinical perspective, presents some problems as symptoms may also be regarded as "meaningful realities" (Good and Good, 1980: 192), not only as indicators of disease.

In terms of the diagram above, the clinical definition of symptom is evident in the

labelling of premenstrual syndrome. In contrast, menstrual change is used to signify the perception of variations as part of normal experience (signs to indicate change). What might account for the understanding that menstrual changes correspond to problematic symptoms, indicative of sickness? Using Hahn's formulation, if sickness is any unwanted state, there must be a different degree of unwantedness to qualify it as a sickness.

Martin (1987) suggests that American women consider menstruation to be a hassle, yet they also view it as an essential part of womanhood. Woods et al. (1992) state that some women feel menstruation to be an affirmation of femininity. Womanhood and femininity: these concepts may have radically different meanings for women. Berg and Block Coutts (1994) assert that menstruation is associated with the concept of tainted femininity meaning that the process is seen as a "femininity-detracting event" due to the understanding of menstruation as "an uncontrollable, untamable, natural function" (p. 20). This implies that the way in which the female body is perceived and conceptualized is an important issue in the designation of distressing symptoms.

The relationship between the perception of changes indicative of sickness and the perception of menstruation as a normal or abnormal process is a complex one. If menstruation is thought to define a woman through its importance in reproduction, then the absence of menstruation would be considered to be a normal state; the presence of the menstrual flow would represent abnormality. In this situation, menstruation could be perceived as an unwanted state. However, if reproduction was not an important issue, menstruation could be considered as a normal process. To further complicate the issue, what happens if PMS is categorized as part of a woman's normal experience? Not only would the

absence of problematic symptomatology be seen as abnormal, but the presence of severe symptoms indicative of psychiatric illness could also be viewed in this way. The disjuncture between what is considered to be normal and abnormal illustrates the complex way menstruation and PMS are embedded within culture.

The labelling of PMS may be seen in relation to the medicalization of female biology. Female processes (menstruation, childbirth and menopause) have become subject, in recent years, to an increased level of medical intervention. This medicalization of reproductive physiology portrays these normal experiences and processes as medical problems (Reissman, 1983; Sherwin, 1992; Martin, 1987; Miles, 1991; Stoppard, 1992). Within this perspective, women are encouraged to obtain the advice of medical practitioners in order to deal with any type of female physiological change. At issue is the degree to which women perceive menstruation as a normal experience within their control or one which requires the intervention of specialists whose treatments can make these processes bearable. Taking this one step further, the classification of PMS as a psychiatric illness provides clear evidence that it is framed not only within a context of abnormality, but also as a disorder beyond an individual's control. As a consequence of medicalization, PMS is more readily acceptable as a label for complaints associated with the female cycle.

The way in which women frame their understanding of PMS may be quite different from the way medical practitioners view the condition. For example, in a study by Woods et al. (1992) on American women, they found that menstrual symptoms were not always considered indicative of illness, even though women placed these symptoms within the PMS label. Whether menstrual changes are understood to be a part of normal experience or

whether they are viewed as illness is a complex issue.

It has been suggested that the perception of distressing symptoms is due, in part, to the presence of cultural stereotypes that perpetuate the idea that psychological and somatic problems are linked to hormonal fluctuations during the menstrual cycle (Parlee, 1974; Ruble, 1977; Ruble and Brooks-Gunn, 1979; Woods, Dery and Most, 1982b). Scambler and Scambler (1993: 91) refer to the understanding of menstruation as part of a "dominant cultural pattern" within which there is a predisposition " to associate menstrual change with physical or psychological distress, social handicap and even illness". These ideas do not in any way negate the presence of menstrual changes experienced by women, but they do suggest that these experiences may be perceived differently due to their understanding of menstrual cycle variation. This raises questions about the positioning of menstruation and PMS solely within biological parameters and it highlights the idea that the understanding of physiological processes and disease and illness labelling are embedded within culture. Do cultural and social factors, for example the influence of the biomedical community, knowledge of the process itself, attitudes to menstruation, socialization of women, social role, or portrayal of women in the media, have important consequences in the labelling and acceptance of PMS? The interaction between the cultural and the biological is an important issue in the area of female physiology.

As described in the literature review, research on PMS has been predominantly conducted from two major perspectives: (1) the determination of a biomedical cause for the disorder which has led to an emphasis on hormonal causation without any decisive biomedical evidence; and (2) the compilation of an extremely large and unwieldy inventory

of PMS symptoms based specifically on the recalled experiences of women with self-reported PMS, women who possess a wide variety of experiential viewpoints. The overriding emphasis in the perspectives outlined above has largely ignored the cultural and social influences in the construction of PMS and this biomedical focus has not been conducive to a study of the meaning of PMS from the perspective of women themselves.

I firmly believe that only by engaging women in in-depth and intensive discussions of their attitudes and feelings toward menstruation can we hope to uncover the way in which these women frame their PMS experiences. The utilization of a qualitative methodology based on intensive interviews has the potential to contribute a significant quantity of original, exploratory data, data which can be used to examine agreement on women's attitudes and experiences of menstruation and the way in which they describe PMS. The use of intensive interviews in conjunction with consensus analysis, a method of evaluating cultural knowledge in terms of the extent of agreement within a group, provides a complementary methodology which permits a more robust inquiry into the cultural, social and biological influences on menstruation and PMS.

Chapter 4

Methodology

My research on menstruation and premenstrual syndrome was conducted in two stages. The first stage explored women's experiences through intensive open-ended interviews. Stage Two of the project involved compiling a consensus questionnaire from the responses to the interview and administering the questionnaire to the original sample.

Stage One

The interview questions (Appendix C) were constructed initially from previous research on PMS and on menstruation in general (e.g. Hall, 1994; Woods et al. 1992; Martin, 1987). Prior to formal data collection, a pre-test interview on eight women was conducted to evaluate the order and wording of the open-ended questionnaire and to check the capability of the recording equipment. This preliminary test was useful in providing feedback on the type of information to be derived from the questionnaire and a number of questions were revised.

Data on menstrual and premenstrual knowledge were collected from a volunteer sample of women living in Manitoba. Notices requesting volunteers (Appendix D) willing to discuss menstrual and premenstrual experiences were placed in womens' resource centers, the Klinic Community Health Centre, the Women's Health Clinic, a physiotherapy clinic, a yoga centre and in selected areas of the University of Manitoba (the Frank Kennedy locker room and on the bulletin board in Women's Studies). Volunteers were also solicited in selected university classes. In addition, snowball sampling (Biernacki and Waldorf, 1981)

was a method used to recruit women.

The number of individuals formally interviewed consisted of 43 women. Although an equal number of women (those who experienced PMS and those who did not) was desired, women with self-diagnosed PMS were clearly in the majority.

A series of questions was posed concerning the experience of PMS. Women who did not experience PMS were given the same set of questions on menstruation with a different series oriented to their understanding of PMS. The interviews were conducted at the woman's home or in my office at the university whichever was more comfortable for the individual. The sessions lasted, on average, about two hours. Interviews were audiotaped in all of the sessions except in one case where the subject was not comfortable being recorded. All of the tapes were transcribed by the interviewer and this resulted in approximately 800 pages of text. The participants were provided with pseudonyms and they were required to sign a consent form outlining the implications of the research and the accountability of the researcher (Appendix E).

The sessions began with the same question each time, but after the initial question was asked, each interview proceeded according to the responses of the women. While most of the questions were answered in a similar order, the interviews varied slightly. This approach permitted the interview to be conducted in a more natural manner. In some cases, if the interviews exceeded two hours, all questions could not be posed to the women.

Interview Data:

The interview questions on menstruation and PMS provided information in the

following areas:

(a) health aspects

(b) recollections of the initial menstrual experience in terms of reaction, attitudes, prior knowledge, preparation and age of occurrence

(c) feelings about menstruation now and the positive and negative aspects; explanations of menstruation and knowledge sources

(d) ideas concerning the body and the self (this information was elicited in questions concerning the meaning of womanhood, femininity and feminism)

(e) PMS data on symptoms or changes, its impact on life, treatment, labelling and explanation

(f) ideas about the meaning of PMS from the perspective of women who did not experience it

Attitudes were also rated using a scale of 1 to 10: in terms of menstrual attitudes, 1 was negative and 10 was positive. In terms of rating the severity of menstrual change, 1 was mild and 10 was severe. Since these rating scales are not objective measures, the numbers obtained were always analyzed in conjunction with a description provided by the individual.

The Menstrual Attitude Questionnaire Data:

The Menstrual Attitude Questionnaire (Brooks-Gunn and Ruble, 1980), referred to as the MAQ, was also administered to the women who completed the interviews. The MAQ was initially constructed using a sample of American university women. Five attitudinal

factors were identified: menstruation as debilitating; menstruation as bothersome; menstruation as natural; anticipation and prediction of onset; and denial of menstrual effects (MAQ form in Appendix F). The questionnaire consists of 33 questions scored on a 7 point Likert scale. The results of the MAQ were compared to the attitudinal rating from the interviews and also to the original data collected by Brooks-Gunn and Ruble (1980).

Personal Profile Data:

Data were also collected on variables such as age, ethnicity, education, occupation, marital status, number of children and so on (see Appendix C for all questions listed). Specific questions were posed dealing with an individual's reproductive history, for example, questions on birth control and on medications used by the individual.

Analysis:

The personal profile data were coded and entered into the SPSS Analysis Program 8.0 and variable frequencies were calculated to provide descriptive demographic statistics. Also, the MAQ data were entered in SPSS and the scores of the five attitudinal factors were tabulated for the group.

In terms of the interview material, the main objective in this stage of the research was to identify themes and patterns existing in the data, but it was also important to identify differences between women in the sample. It was equally important to consider not only the views of women with PMS, but also those who did not experience it.

One way in which the data were analyzed was the identification of terms or phrases

belonging to a specific cultural domain (for example, positive and negative menstrual change). A cultural domain consists of a set of interrelated items which informants group together (Borgatti, 1994). A number of questions on the interview schedule were oriented to the collection of items comprising a cultural domain. This information was analyzed by compiling a free list and counting the frequency of the specific terms or phrases. The Anthropac Computer Program (Borgatti, 1996) was used for this analysis. The frequency of certain words or phrases used to answer other questions was also a way to assess patterns in the data. From these responses, concepts and categories represented in the data were constructed. Componential analysis which is described as the systematic search for attributes associated with cultural categories (Spradley, 1980; Bernard, 1994) was a primary method of assessing cultural domains and divisions within particular categories.

Stage Two

The responses from the open-ended interviews provided the data for an analysis of consensus. A series of statements were compiled from the data collected and a questionnaire was constructed which assessed the amount of agreement among the subjects.

Consensus Theory:

An important objective of this study was to assess the applicability of consensus theory and analysis in relation to menstrual knowledge. Consensus theory has not been used previously in menstrual studies. Some applications of this analysis include: differences in illness knowledge between curers and noncurers in Mexico (Garro, 1986); variation in

knowledge of chronic illness (Garro, 1988, 1996); differences in knowledge of manioc plants (Boster, 1986); the analysis of environmental values in American culture (Kempton, Boster and Hartley, 1995) and in research on diabetes among the Ojibway-Cree in Northern Ontario (Gittelsohn et al. 1996).

Consensus analysis is a technique derived from cognitive anthropology to assess the knowledge of individuals in a particular cultural domain. Consensus theory was originally formulated as "a way of describing and measuring the amount and distribution of cultural knowledge among a group of informants in an objective way" (Romney, Weller and Batchelder, 1986: 313). The theory is based on the premise that the pattern of agreement among informants can be used to make inferences about their knowledge from the way they respond to statements on a questionnaire (Weller and Romney, 1988). In other words, if there is considerable agreement among individuals on statements which reflect a specific cultural domain, this implies that these individuals are knowledgeable in this domain and thus share a common culture. Variation will be the result of individual differences in knowledge rather than a reflection of a subcultural difference (Romney, Weller and Batchelder, 1986).

The use of small samples is a component of consensus theory (Romney, Weller and Batchelder, 1986). According to Romney et al. (1986), the higher the average consensus score (they refer to it as a competence level) the fewer the number of informants needed. For example, if average competence was .9 (very high), confidence level was .99 and the proportion of statements classified correctly was .95, the number of informants needed would be four (based on their sample size requirement table, Appendix G). This means that

four informants with an average competence of .9, would have a .95 probability of correctly classifying each question on a true/false questionnaire with a confidence level of .99. In terms of my study, if the average level of competence required was .6, with a .99 confidence level and a .95 probability, 14 informants would be needed. If this was lowered to a .5 competence level, the requirement would be 23 informants. Since the average consensus score can not be predicted in advance, a minimum of 23 individuals will be required for the analysis. Romney et al. (1986) emphasize that their sample size requirement table lists the minimum numbers needed and that it is only meant to be used as a rough guide.

Consensus Questionnaire Development:

The initial step in the derivation of the statements, involved summarizing all of the interview transcripts. This task was approached in the following way:

1.) A list of key statements was compiled from each transcript involving general knowledge of menstruation and PMS, health aspects, attitudes and beliefs, societal views, labelling issues and ideas of womanhood.

2.) A general summary of the transcript was completed which included information on the following topics:

   a) attitude and feelings towards menarche

   b) present attitude

   c) restrictions concerning menstruation

   d) tampon use

   e) euphemisms

f) womanhood issues

g) changes experienced before and during menstruation

h) PMS experience and discussion of labelling

i) causal connections

When these two sources were compiled, key statements were recorded on a master list and compared to the transcript summary.

In order to be categorized as a key statement, the following issues were taken into account: the importance to the individual; similarities with other women; and major differences or elements which were highlighted as key to the individual.

A list of 147 statements were derived. The next step was to consult the individual statement lists, transcript summaries and even the complete transcripts themselves to determine the importance of the ideas expressed. Once this cross-check was completed, the list of statements was reduced to 61. The key statements used were a combination of frequent ideas and diversity of knowledge and understanding. This list was considered to be the primary consensus questionnaire and would be administered to all women in the sample after testing and revision was completed.

While the list was being formulated, a problem was noted with some of the statements on PMS. A woman would have to experience PMS and use it as a label in order to agree or disagree with some of the statements. This criterion did not apply to conceptualizations of PMS which could be incorporated in the main questionnaire, but it did involve a number of specific statements. A decision was made while the list was being derived to compile a second consensus questionnaire only for women with PMS. This

solution made sense as a majority of the sample experienced PMS, a total of 32 women or 74.4 per cent of the sample. This reevaluation led to a questionnaire with 31 statements listed.

In order to answer the PMS section, the respondent was required to provide a yes answer to this question: "Do you experience premenstrual syndrome (PMS)?" A response of no or don't know would not be a valid requirement.

Before administering the statements to a pre-test group a preliminary determination was made on the classification of responses in terms of agreement or disagreement. This task was difficult in that the responses to these statements on menstrual knowledge and understanding did not fall within known designations of true or false so it was hard to determine how individuals would respond to the statements. However, using myself as a test case as well as some women in the sample who fell within a more positive or negative categorization, it was possible to arrive at an approximately equal number of statements on which subjects agreed and disagreed. This exercise was completed with both questionnaires.

The consensus questionnaires were administered to the pre-test subjects. The women selected were those who had agreed to be interviewed in the pre-testing of the interview schedule, although one woman volunteered to answer the questionnaire without this prior experience. A total of seven questionnaires were answered and returned; most of these were done in my presence so feedback was possible as the individual was responding to the statements.

This was extremely valuable as complex wording, ambiguity and comprehension aspects were critiqued by a range of different individuals. This stage of analysis resulted in

a list of 65 statements on the main questionnaire and 36 statements on the PMS portion. One of the primary changes was the division of statements which incorporated more than one concept so that there would be no ambiguity in the statements. The hope was that women would respond fairly easily to most of the statements, although given the nature of the variation noted in the sample this might not always be the case.

The next step was to obtain a critique from my advisor before administering the consensus questionnaire to the sample. The result was a list of 66 statements on the general questionnaire while 38 statements were used on the PMS form (Appendix H).

Analysis:

Consensus analysis was conducted on the same group of women who volunteered for the open-ended interviews. The analysis was used to ascertain whether knowledge and understanding of menstruation and PMS was shared among members of this group. The degree of concordance (whether it was high or low) was hard to determine in the sample prior to the consensus analysis. Clearly there appeared to be substantial agreement in certain areas, but the sample was diverse especially in terms of individuals' attitudes and experiences and menstruation is a very large domain. Some of the women were extremely positive while others were extremely negative and their PMS experience also was variable.

Since the determination of consensus occurred after the original data were analyzed, it was important to inform the subjects at the time of the interview that they would be contacted at a later date to complete a questionnaire. They were informed that this was likely to occur from four to six months after the initial interviews, although it took much longer

than that, from six months to almost a year.

Due to the extended time element, the subjects were contacted after the six month period and were told that the study was taking longer than expected. This communication was useful in that all women were contacted within the six-month period. In the course of conversation with women information about their future whereabouts was determined and it was possible to obtain addresses where they could be contacted in a further six month period. Because of the follow-up all women were contacted at a later date and all participated in the completion of the consensus form.

It was not always possible to meet with the subject in person and some of the consensus forms were completed via email and regular mail. These women were advised that they could place any comments they wished on the forms, and in many cases, they responded with interesting comments.

An agree/disagree format was used to assess whether there was consensus within the group of 43 women. Analysis of consensus was conducted using the Anthropac computer program (Borgatti, 1996). This program analyzes the data in the following way: the responses to the statements are matched for similar answers which involves the number of matches between informants, the proportion of matches and the proportion of matches corrected for guessing. Factor analysis (the minimum residual method) is conducted on the correlation matrix of corrected matches. This information can be used to compute a score for each person (a score which reflects consensus) only if the first eigenvalue is at least several times as large as the second value and if all the other factors are relatively small (Romney, Weller and Batchelder, 1986). An eigenvalue at least three times as large is

preferable. A high score indicates that these informants are the most knowledgeable in the cultural domain represented. Low scores would reflect those individuals who differ in terms of this shared knowledge.

There was a possibility that agreement would not be found in the statements presented to the group. At the beginning of the study, a tacit assumption was made that if consensus was not obtained on the questionnaire, the difference would probably exist between those women with PMS and those who did not subscribe to this label. As will be evident in the results section, this was not the case and consensus was found in two separate groups of PMS women as well as among a subset of the entire group who possessed an extremely positive attitude.

Multidimensional Scaling (MDS) was a technique useful in isolating the differences within the group. MDS is a visual representation of underlying relationships in a set of similarity data (Bernard, 1994; Borgatti, 1994) and represents a graphic depiction of interinformant similarities (analyzed through the Anthropac Program). MDS illustrated a situation in which there was more than one system for organizing menstrual knowledge, in fact, there were two viable systems within the PMS group and two clusters were indicated rather loosely. Both clusters achieved consensus when analyzed separately. In addition, MDS was useful in pointing to an individual who was an outlier in terms of the responses of the entire group to the general questionnaire. Based on this depiction, differences between this individual and the main group were identified.

Through a comparison of the statements between the groups, an assessment of variation was possible. An exploratory analysis of the general questionnaire was also

undertaken and this procedure provided rich data on the similarities and differences within the entire group.

Limitations of the Methodology

A volunteer sample was used for the open-ended interviews and the consensus questionnaire. It is important to note that this was not a probability sample in which individuals were randomly selected. Probability samples are commonly used in survey research in which structured questionnaires are administered to large numbers of respondents, in order to obtain views representing the larger population. A volunteer sample of women in Manitoba cannot be thought to be representative of Canadian (or Manitoba) women in general.

However, it is important to consider the goals of this research: it was exploratory in that information on knowledge and understanding of the menstrual cycle and PMS was collected from women in Manitoba; it applied consensus analysis to the study of shared knowledge of menstruation and PMS; and it focused on intracultural variation.

Chapter 5

Results

Sample Profile

The interviews began in March of 1997. Forty-three women had been interviewed by February of 1998. The consensus forms were completed by May of 1998.

Data on variables, such as age, marital status, education, occupation, childbearing, country of birth, PMS experience, birth control and medical conditions were collected from each participant. Biographical information is listed in Appendix I.

Age:

The women ranged in age from 19 to 55 with the mean age being 34.4 years.

TABLE 5.1: AGE DISTRIBUTION

AGE GROUPS	FREQ	PER CENT
19 TO 30	14	32.6
31 TO 40	18	41.9
41 TO 55	11	25.6
TOTAL	43	100.0
MEAN AGE	34.4	
MEDIAN AGE	34	
MODAL AGE	30	

Marital Status:

Single women in the sample represented the highest frequency (21 women, 48.8 per cent).

TABLE 5.2: MARITAL STATUS

MARITAL STATUS	FREQ	PER CENT
SINGLE	21	48.8
MARRIED	12	27.9
SEPARATED	2	4.7
DIVORCED	4	9.3
LIVING W/PARTNER	4	9.3
TOTAL	43	100.0

Education:

The women were highly educated. Of the 27 university educated women, six possessed a graduate degree while 21 had completed an undergraduate program. Nineteen women were currently in attendance at university or community college.

TABLE 5.3: EDUCATION

EDUCATION	FREQ	PER CENT
HIGH SCHOOL	10	23.3
UNIVERSITY	27	62.8
COM. COLLEGE	4	9.3
BUS. COLLEGE OR CERTIFICATE	2	4.7
TOTAL	43	100.0

Occupation:

Four women were members of the nursing profession. Other occupations reported were assessor (2), teacher, massage therapist, secretary, administrator, public relations, advertising, social worker, full-time mother, full-time volunteer, market analyst, market consultant, self-employed (business not mentioned), child development counsellor, accountant, administrative assistant, education specialist, hair stylist and art conservator. One woman was retired and one, unemployed at the time the study was conducted, did not

specify a specific occupation.

Childbearing:

The majority of the sample was composed of nulliparous women. Thirteen women had children, the number ranging from one to five, 28 children in total. One woman was pregnant at the time of the interview.

TABLE 5.4: NUMBER OF CHILDREN

CHILDREN	FREQ	PER CENT
YES	13	30.2
NO	30	69.8
TOTAL	43	100.0

Country of birth:

Canada was the country of birth for 81.4 per cent of the sample. Other countries of origin were England (2), Switzerland, Holland, Brazil, Scotland, Finland and Dominica.

TABLE 5.5: COUNTRY OF BIRTH

COUNTRY OF BIRTH	FREQ	PER CENT
CANADA	35	81.4
OTHER	8	18.6
TOTAL	43	100.0

In the case of nine women, both parents were born in another country. There were a number of cases where one of the parents was born in another country: the female parent (14 women or 32.6 per cent); the male parent (16 men or 37.2 per cent).

PMS Experience:

There were 32 women who reported experiencing PMS.

TABLE 5.6: PMS

PMS	FREQ	PER CENT
YES	32	74.4
NO	11	25.6
TOTAL	43	100.0

Crosstabulations:

Self-reported PMS status was crosstabulated with age groups, marital status and childbearing to provide a more detailed description of group demographics. When the sample was divided based on median age, an equal number of women in each age group had PMS. Eleven of the 12 married women experienced PMS, although more women in total (15) were single. Ten out of a total of 13 women had children. The results are presented in Tables 5.7, 5.8 and 5.9.

TABLE 5.7: PMS BY MEDIAN AGE

	PMS		
	YES	NO	
AGE GROUPS			TOTAL
19 TO 34	16	6	22
35 TO 55	16	5	21
TOTAL	32	11	43

TABLE 5.8: PMS BY MARITAL STATUS

	PMS		
	YES	NO	
MARITAL STATUS			TOTAL
SINGLE	15	6	21
MARRIED	11	1	12
SEPARATED	0	2	2
DIVORCED	3	1	4
LIVING W/PARTNER	3	1	4
TOTAL	32	11	43

TABLE 5.9: PMS BY CHILDBEARING

	PMS		
	YES	NO	
CHILDREN			TOTAL
YES	10	3	13
NO	22	8	30
TOTAL	32	11	43

Birth Control:

Eleven women were taking the birth control pill, eight reported using condoms (one woman used the female condom) and another woman used spermicides and sponges. Four women had undergone a tubal ligation, and one had a hysterectomy although she still had ovarian function. One woman was pregnant at the time of the interview.

Medical Conditions:

One woman had multiple sclerosis. Another woman was subject to chemical sensitivity. Six women reported using antidepressants.

The Interviews

Research Question #1:

> **How do women conceptualize menstruation and premenstrual syndrome in Manitoba? What attitudes are prevalent in this cultural setting?**

The information derived from the interview sessions provided a substantial base of data with which to answer this question (see Appendix J for categories derived from the initial question on the interview schedule with a listing of the terms and phrases mentioned

by study participants).

For presentation, the data are organized under the following headings:

1) Recollections of Menarche

2) Attitudes Toward Menstruation

3) Premenstrual Syndrome

1) Recollections of Menarche

Age:

The individuals ranged in age from 8 to 18 with a mean age of 12.8 years.

TABLE 5.10: AGE AT MENARCHE

	N = 43
MEAN	12.8
MEDIAN	13.0
MODE	13

Feelings:

Free listing was used to determine the frequency of feelings that women recalled about their first menstrual experience. Embarrassment was most frequently mentioned (35 per cent), although feeling excited was also reported (26 per cent).

There are 17 categories listed in Table 5.11 some of which include terms with similar meanings: embarrassed (humiliated, secretive, self-conscious); excited (fascinated, elated, ecstatic, curious); scared (fearful, horrified, terrified, traumatic); worried (anxious); uncomfortable (nuisance, what a drag); unhappy (upset, didn't want it, hated it, dismayed); happy (pleased, good, glad, neat); surprised (shocked); calm (no big deal); proud

(meaningful, mature); disbelief (denial, detached, kinda weird).

TABLE 5.11: FEELINGS ABOUT MENARCHE

FEELING	FREQ	PER CENT
EMBARRASSED	15	35
EXCITED	11	26
SCARED	10	23
WORRIED	9	21
CONFUSED	9	21
UNCOMFORTABLE	8	19
UNHAPPY	7	16
HAPPY	7	16
SURPRISED	5	12
CALM	5	12
RELIEVED	4	9
NORMAL	4	9
PROUD	4	9
DISBELIEF	3	7
GUILTY	1	2
HELPLESS	1	2
ANGRY	1	2

Rating of feelings:

Women were asked to place their feelings about their first menstruation on a scale of 1 to 10 (1 = negative; 10 = positive). It was a difficult task for many as it was hard to remember vividly what they felt and this recall was also influenced by their present feelings. However, they all made the attempt to answer this question. The average rating was 5.6 with scores ranging from 1 to 9.

Preparation:

Only four women related that they were not prepared for their initial menstrual

experience while 39 stated they received adequate preparation. Seventeen were told of menstruation by their mother, one by her father and one by her sister while 26 received their information from their school. For eight women, friends were the source of the information, 11 learned through books and one was told by her family doctor.

2) Attitudes Toward Menstruation

There were two specific questions which provided data for an analysis of general attitudes:

1) How do you feel about menstruation now?

2) On a scale of 1 to 10 (1 = negative; 10 = positive), which number best represents your feelings about menstruation at this point in your life?

The answers to both questions were used to assign a woman's responses to an overall attitudinal category. Five categories were constructed relating to varying degrees of positivity and negativity and these are listed in Table 5.12.

TABLE 5.12: ATTITUDINAL CATEGORIES

ATTITUDE	FREQ	PER CENT
EXTREMELY POSITIVE	10	23.8
SLIGHTLY POSITIVE	14	33.3
AMBIVALENT	3	7.1
SLIGHTLY NEGATIVE	9	21.5
EXTREMELY NEGATIVE	6	14.3
TOTAL	42	100.0

One woman was excluded from the attitude classification as she did not experience bleeding (she had a hysterectomy, although she still had ovarian function). She was included in the PMS sample due to the symptoms she experienced.

Rating:

On a scale of 1 to 10 the average rating was 6.5 with scores ranging from 1 to 10. This corresponds with the qualitative designation of slightly positive, the category with the highest percentage (33.3) of women.

Positive feelings about menstruation were reported by 57.1 per cent of the sample with 23.8 per cent expressing an extremely positive attitude. The extremely positive designation was made by evaluating women's responses and taking into account a very high rating of feelings (average for this group is 9.6). Only women who rated their feelings nine and over were placed in this category.

The extremely negative rating was based on a very low numerical rating in most cases. However, two women rated their feelings as 4 and 3.5. Based on their extremely negative discourse they were placed within the extremely negative category. Negative feelings of some degree were reported by 15 women, 35.8 per cent of the sample.

Positive and Negative Attributes:

Women were asked to list the positive and negative attributes of menstruation. Free listing analysis was used to assess frequencies in terms of these attributes.

Positives:

The most frequent attribute mentioned was the potential for procreation (62 per cent). Thirty per cent referred to menstruation as a sign of womanhood - it was part of being a woman - while 26 per cent thought that it was a sign of health. Menstruation also meant

that a woman was not pregnant (19 per cent) so both pregnancy and not being pregnant were considered positive elements. Positives mentioned by two or more women are listed below in Table 5.13.

TABLE 5.13: POSITIVE ATTRIBUTES

POSITIVE	FREQ	PER CENT
PREGNANCY	26	62
WOMANHOOD	13	31
SIGN OF HEALTH	11	26
NOT PREGNANT	8	19
CYCLIC CONNECTION	7	17
CLEANSING	6	14
FEMALE BONDS	5	12
NORMAL	5	12
IN TOUCH WITH BODY	5	12
TIME FOR SELF-CARE	3	7
RENEWAL	3	7
CREATIVITY	3	7
MATURITY	2	5
BODY CHANGES	2	5
FEELING OF STRENGTH	2	5
BLOOD	2	5
FEMININITY	2	5

Negatives:

Inconvenience was the most frequently expressed negative response (65 per cent). Other negatives mentioned included pain (35 per cent), emotional and physical symptoms (28 and 30 per cent respectively) and the expense (21 per cent) associated with the purchase of napkins and tampons. Table 5.14 lists negatives mentioned by two or more women.

TABLE 5.14: NEGATIVE ATTRIBUTES

NEGATIVE	FREQ	PER CENT
INCONVENIENCE	28	65
PAIN	15	35
PHYSICAL SYMPTOMS	13	30
EMOTIONAL SYMPTOMS	12	28
EXPENSE	9	21
DISCOMFORT	7	16
MESSY	6	14
PADS	5	12
PMS	3	7
WORRY	2	5
SOCIETAL ATTITUDE	2	5
APPEARANCE	2	5
ODOUR	2	5
HEAVY FLOW	2	5
ADVERTISING	2	5

Are there any restrictions associated with menstruation?

Some things they avoided were:

SEXUAL INTERCOURSE	LIGHT-COLOURED CLOTHING
ORAL SEX	TIGHT CLOTHING
BEING TOUCHED	SALT
BATHS	SUGAR
SWIMMING	ALCOHOL
PHYSICAL ACTIVITIES	CAFFEINE
STEAMBATHS	DRIVING
SOCIALIZING	SWEAT LODGE CEREMONIES

This question was asked in order to see if women changed their habits while they were menstruating. The activities and items women avoid also provided information on

attitude indirectly by focusing on various strategies used by women while they were menstruating. Swimming was a problem for those women who did not use tampons. Some women mentioned that they increased hygienic practices at this time.

What terms do you use to refer to menstruation?

This question was posed to get an idea of the euphemisms used for menstruation and to find out if there was an negativity surrounding the use of the term menstruation itself. The most common term used in place of menstruation was period and all of the women used this term when talking about menstruation in the interviews. Some thought that menstruation was a clinical word and for this reason they didn't want to use it. Others felt that it was old-fashioned and dated. One woman didn't like because it had the word 'men' in it.

The following terms were mentioned:

PERIOD	THAT TIME OF THE MONTH
ON MY TIME	FRIEND
VISIT FROM AUNTY FLO	MOONTIME
MONTHLY FRIEND	MENSES
MONTHLY VISIT	BLEEDING
PMS	CHICKEY-CHICKS
CYCLE	

Some terms used when they were younger were 'the curse' and 'on the rag'.

Menstrual Attitude questionnaire (MAQ) Data:

The MAQ has 33 questions divided into five factors:

Factor 1 - Menstruation as a Debilitating Event;

Factor 2 - Menstruation as a Bothersome Event;

Factor 3 - Menstruation as a Natural Event;

Factor 4 - Anticipation and Prediction of the Onset of Menstruation;

Factor 5 - Denial of any Effect of Menstruation.

The results are listed in Table 5.15. Despite experiencing some negative feelings about menstruation, women in this sample did not find menstruation to be debilitating; they did not find it to be bothersome; it was a natural event; they viewed it as somewhat predictable; and they did not deny its effects.

TABLE 5.15: MAQ FACTOR RESULTS

FACTOR N = 43	MEAN	S.D.
DEBILITATION	3.80	0.92
BOTHERSOME	3.77	0.85
NATURAL	5.15	0.46
PREDICTABLE	4.69	1.55
DENIAL	2.41	1.27

The MAQ data correspond with ratings from the attitudinal scale derived from the open-ended interview questions if we consider that the majority of women in the sample do not find menstruation to be bothersome or debilitating. This result could be associated with the slightly positive rating of 33.3 per cent of the sample, the largest contingent. However, there is no dimension that deals with a positive attitudinal rating.

3) Premenstrual Syndrome:

A total of 32 women (74.4 per cent) experienced premenstrual syndrome, while 11 women stated that they either did not experience it or that they didn't know.

The women ranged in age from 21 to 55 years with a mean age of 35.3.

Rating:

Women were asked to rate the severity of their PMS changes on a scale of 1 to 10 (1 = mild; 10 = severe) in terms of the impact the changes had on their lives. Scores ranged from 2 to 10 with an average of 5.29, a rating of moderate severity.

On a scale of 1 to 10, the average attitudinal rating from the women with PMS was 6.5. Scores ranged from 1.5 to 10. Within the PMS sample, there were some women who felt that menstrual change in general was positive.

PMS Changes:

Women were asked to list the changes they experienced during PMS. The aggregate list was difficult to construct in the sense that some terms and phrases used to describe emotional and physical changes had similar meanings requiring some interpretation and condensation. These similarities may account for the extraordinary number of symptoms associated with PMS (150 in some reports). In this study a total of 47 changes were listed ranging from diarrhea and hemorrhoids to lack of concentration and light-headedness.

Emotional changes were mentioned as the most problematic and out of the first five symptoms mentioned by two or more women (listed in Table 5.16), four of the five are emotional (moodiness, irritability, sensitivity and depression). Moodiness was the most frequently mentioned change with 69 per cent of women experiencing this state. Fifty (50) per cent of the women who experienced PMS reported that depression was a significant

factor. In the case of some women, PMS changes were positive, and they expressed the idea that it was not a bad thing for a woman to be emotional.

TABLE 5.16: PMS CHANGES

CHANGE	FREQ	PER CENT
MOODINESS	22	69
IRRITABILITY	19	59
SENSITIVITY	18	56
WATER RETENTION	17	53
DEPRESSION	16	50
BREAST TENDERNESS	14	44
CRAMPS	14	44
CRAVINGS	14	44
FATIGUE	12	38
BACKACHE	11	34
SADNESS	9	28
HEADACHES	8	25
TENSION	6	19
ANGER	6	19
ANXIETY	5	16
IRRATIONALITY	4	13
INCREASED LIBIDO	3	9
ACHINESS	3	9
NAUSEA	3	9
INSOMNIA	3	9
LACK OF CONTROL	2	6
ACNE	2	6
BREAST SWELLING	2	6
INCREASED APPETITE	2	6
IMPATIENCE	2	6
CONFUSION	2	6
INCREASED DREAMING	2	6

Impact on Life:

In terms of the impact PMS had on women's lives, there were four common problems mentioned:

1) PMS had a negative affect on self-esteem and self-image

2) social interactions were avoided and women tried to isolate themselves

3) activities had to be rescheduled

4) the emotional aspect was the hardest to deal with and it affected relationships with others

Treatments:

Treatments used by women varied considerably. Some of the remedies found to be useful are listed below:

- exercise helped to alleviate some of the symptoms
- antidepressants were also used and in one case, prozac had been prescribed
- more natural relaxants were used, an example being St. John's Wort
- evening primrose oil helped some women, but had no effect on others
- there were a variety of herbal teas used, although a product called PMS tea is available in major supermarkets
- some women mentioned that they needed to sleep more and this helped
- all the major painkillers were mentioned mostly in relation to cramps and headaches
- some women stated they needed to isolate themselves and doing more reading and having more quiet time helped
- others avoided salt, caffeine, dairy, smoking, alcohol, sugar, fat, additives, wheat and yeast
- multivitamins were taken as well as Vitamin B6
- warm baths helped to combat some symptoms (achiness and cramps) - at other times it was used almost as a way to pamper themselves
- many noted they made an effort to lead a healthier lifestyle
- a number of women stated they succumbed to their cravings for chocolate which made them feel better

- some women drank less water and some drank more water
- some women mentioned using a PMS support group through the Women's Health Clinic - this group was very effective and provided the women with different ways to view PMS as well as coping techniques they could use
- charting the cycle helped some women as they could then see a pattern in the timing of their symptoms
- diuretics were also mentioned, particularly to offset water retention
- the use of a hot water bottle helped to relieve cramps
- stretching and breathing techniques were used as a way to relax for some women - one woman listened to relaxation tapes
- others reported that writing was an important activity which helped women to reflect on the changes they were experiencing
- some women made an effort to avoid stressful situations
- aromatherapy was used, lavender, in particular, was mentioned as helpful

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Labelling:

Women were also asked how they felt about premenstrual syndrome as a label: were there any problems associated with using this term? The responses were split within the group of women who experienced PMS: fourteen (32 per cent) thought that labelling symptoms as PMS was a positive move; four (12.5 per cent) thought it was a good thing, but had reservations about it as well; while another 14 (32 per cent) felt that there were significant problems in labelling changes associated with menstruation as a syndrome.

Cause:

In terms of the cause of PMS, the majority of women referred to hormones, either in natural concentrations or as the result of a hormonal imbalance. Other causes mentioned were prostaglandins and poor diet.

Women who do not experience PMS:

Eleven women in the study did not use PMS as a label to describe changes prior to menstruation. Of the 11, three women stated that they did not know whether they experienced PMS or not. The average attitudinal rating of non PMS women was 6.5 with scores ranging from 1 to 10.

Women who were categorized as non PMS did experience changes, some prior to the period (6 of the 11), while others only experienced changes during bleeding (5 of 11). The most problematic change was the presence of cramps (64 per cent) and of the first five changes mentioned, only one was emotional (moodiness). The changes reported by two or more women are listed below in Table 5.17.

TABLE 5.17: CHANGES (NON PMS WOMEN)

CHANGE	FREQ	PER CENT
CRAMPS	7	64
MOODINESS	6	55
BREAST TENDERNESS	6	55
WATER RETENTION	5	45
FATIGUE	4	36
IRRITABILITY	4	36
BACKACHE	3	27
SENSITIVITY	3	27
ACHINESS	3	27
CRAVINGS	2	18

One of the most interesting aspects of this list is the absence of depression. Within the non PMS group the experience of depression prior to menstruation is only mentioned by one woman.

Labelling:

Labelling of symptoms as being indicative of PMS came under considerable criticism by women who did not experience the disorder. The use of the word syndrome was the main problem and "change" was regarded as being a much more appropriate word to represent the somatic and emotional differences which occurred prior to the period. Changes occurring prior to and during menstruation were regarded as natural and some non PMS women expressed concern that women, in general, were stigmatized as a result of the label.

Consensus Analysis

Research Question #2:

Is there consensus among women in terms of their knowledge and understanding of premenstrual and menstrual changes?

Data from the second research question will organized in the following way:

1) The results of the consensus analysis of the PMS questionnaire.

2) The results of the consensus analysis of the general questionnaire.

1) PMS Consensus Analysis

The PMS consensus questionnaire was composed of 38 statements on various aspects of PMS (Appendix H). Consensus was not found in the sample of 32 women. However, the similarity data was depicted graphically by the use of Multidimensional Scaling (MDS). In this representation (Figure 5.1), there appears to be two separate groups within the PMS

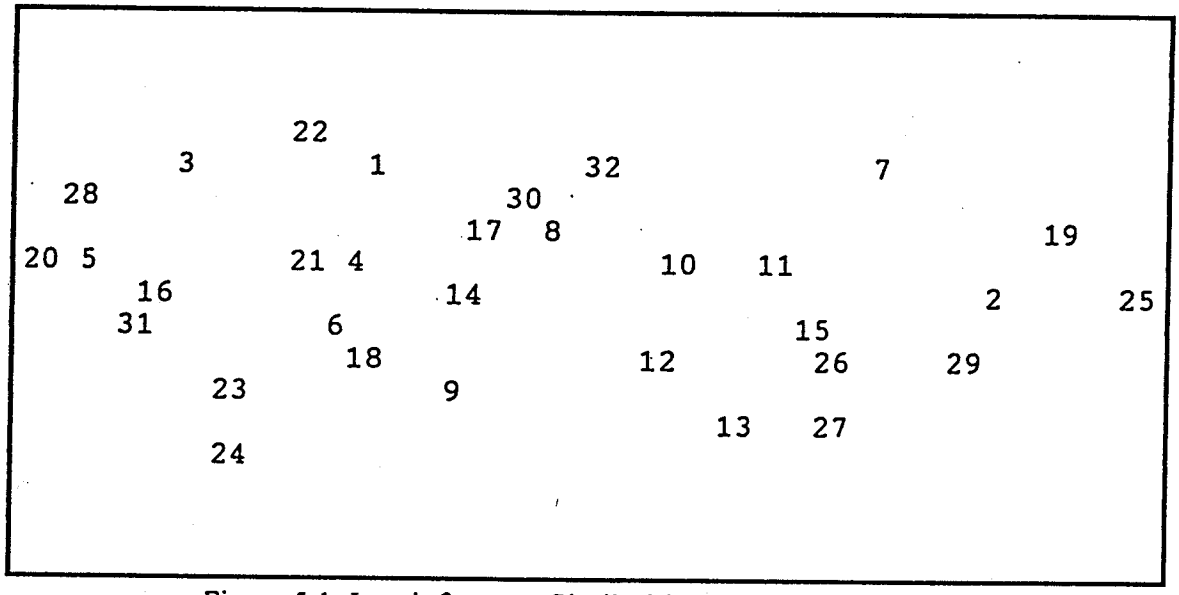

Figure 5.1: Interinformant Similarities (Women with PMS)

sample.

Based on the above representation, the PMS sample was divided into two groups: the one to the left side of the MDS graph is composed of 18 women, while the one to the right has 14 in number. The left half will be referred to as Group A while the right half will be called Group B. Consensus analysis was completed on both groups and each group achieved consensus on a majority of statements.

Group A:

The average score was .583 with a standard deviation of .123. This indicates that the subjects responded to 58 per cent of the statements in a similar manner based on the pattern of agreement among the respondents. In typical consensus analysis, this is phrased in a different way, that the informants knew the answers to 58 per cent of the questions. However, in terms of premenstrual knowledge and understanding it is difficult to assign correct or incorrect designations.

A confidence level of $p<.01$ was used and at this level, 86 per cent of the questions were assigned as significant in terms of agreement or disagreement. The sample size of 18 fit within the required sample size for this confidence level.

Consensus analysis also requires that the first factor be significantly larger than the second, at least three times as large. The ratio of the first eigenvalue to the second was 4.89.

Group B:

The average score was .563 with a standard deviation of .144. This indicates that the subjects responded to 56 per cent of the statements in a similar manner based on the the

pattern of agreement within the group.

A confidence level of $p<.01$ was used and at this level, 86 per cent of the questions were assigned as significant in terms of agreement or disagreement. The sample size of 14 was extremely close to that set by the minimum sample size requirement (15) for this confidence level.

The ratio of the first eigenvalue to the second was 3.08.

Comparison of Group A and Group B:

The differences between the two groups are in the following areas:

	GROUP A	GROUP B
HARDEST PART OF PMS	EMOTIONAL	PHYSICAL
ONE OF WORST SYMPTOMS	DEPRESSION	----------
WORSE AS A WOMAN AGES	YES	NO
VICTIM OF HORMONES	YES	NO
LOSS OF CONTROL	YES	NO
LOW SELF-IMAGE	YES	NO
POSITIVE ASPECTS OF PMS	NO	YES
ABNORMAL FEELINGS	YES	NO
PROBLEMS WITH TERM PMS	NO	YES

The division between the two groups appears to centre around whether or not the emotional is worse than the physical (Group A emotional and Group B physical) and a component of this is the presence of depression. In comparison to the symptom list for PMS women, 50 per cent of women experienced depression.

Loss of control is also an important factor. Group B agrees with the statement that they don't let PMS control them, while everything's falling apart for Group A and they feel like victims of their hormones, two very strong statements. Group A does not feel normal

either mentally or physically.

Self-image is another area where there are differences. To state as Group A does that they hate themselves during PMS indicates a dissatisfaction with their sense of self and feelings are directed inward. This is an area which will be significant in a comparison between Group A and women who are extremely positive later in the results section.

Group B notes that there are positive aspects associated with PMS, creativity being an example and they also feel that there are some problems with the use of the term premenstrual syndrome.

In terms of age, marital status and number of children, the two groups differed as follows:

- the mean age of Group A was 38.4 years, for Group B it was 31.4 years
- there were nine women who were married in Group A while only two in Group B were married
- there were seven women in Group A who had children, only three women in Group B had children
- there were 23 children in total; 18 of the 23 belonged to Group A women, while only five belonged to Group B women

The number of children and marital status in regard to Group A are interesting variables as both could be contributing factors in terms of stress.

The following two tables (5.18 and 5.19) present a comparison of the statements that achieved consensus in the two groups. The statements that were responded to in a completely opposite way are of considerable importance in understanding the differences between the two groups.

TABLE 5.18 - CONSENSUS STATEMENTS GROUP A

AGREE	#	DISAGREE
#29 Good that PMS is identified	18	#13 Keep discussion of PMS out of workplace
#2 PMS experience an emotional roller coaster	17	#27 Feeling of strength & well-being with PMS
#8 Exercise helps alleviate PMS	17	
#16 PMS has negative connotation	17	
#22 Emotional part hardest to deal with	16	#1 PMS is not a problem for me
#34 Depression one of worst symptoms	16	
#12 PMS jokes minimize seriousness	16	
#18 More self-critical during PMS	16	
#7 Refraining from some items helps PMS	15	
#35 Women blamed for experiencing PMS	15	
#38 To understand PMS women must experience it	15	
#19 Feels like everything's falling apart	14	#21 PMS allows us to talk about our feelings
#32 We don't have a choice in having PMS	14	
#37 PMS just part of monthly cycle	14	
#20 During PMS I hate myself	13	**#26 Creativity is part of PMS**
	13	**#31 PMS excuse for unacceptable behaviour**
#25 PMS refers to changes prior to period	12	#14 PMS affects my life severely
	12	#33 Not much I can do about PMS
#3 PMS due to hormonal imbalance	11	
#15 Feel like I am a victim of my hormones	11	
#23 PMS way of making sense out of something that doesn't make sense	11	
#28 Don't feel normal mentally or physically	11	
#36 Should be changes rather than symptoms	11	
#6 PMS gets worse as a woman ages	10	#9 Having a child decreases severity of PMS
	10	**#17 Physical part hardest to deal with**
	10	**#11 Term PMS diminishes and demeans women**
#'s 4, 5, 10, 24, 30 did not achieve significance		

Bold type indicates statements on which the two PMS groups have opposite views.

TABLE 5.19 - CONSENSUS STATEMENTS GROUP B

AGREE	#	DISAGREE
#8 Exercise helps alleviate PMS	14	**#20 During PMS I hate myself**
#16 PMS has negative connotation	14	
#37 PMS just part of monthly cycle	13	#13 Keep discussion of PMS out of workplace
#24 I don't let PMS control me	13	#14 PMS affects my life severely
#29 Good that PMS is identified	12	**#15 Feel like I am a victim of my hormones**
#36 Should be changes rather than symptoms	12	**#28 Don't feel normal mentally or physically**
#12 PMS jokes minimize seriousness	12	
#17 Physical part hardest to deal with	12	
#38 To understand PMS women must experience it	11	
#35 Women blamed for experiencing PMS	11	
#5 At times, experience of PMS is positive one	11	
#7 Refraining from some items helps PMS	11	
#32 We don't have a choice in having PMS	10	**#19 Feels like everything's falling apart**
	10	**#34 Depression one of worst symptoms**
#2 PMS experience an emotional roller coaster	9	#9 Having a child decreases severity of PMS
#11 Term PMS diminishes and demeans women	9	
#25 PMS refers to changes prior to bleeding	9	
	9	#33 Not much I can do about PMS
#26 Creativity is part of PMS	8	#4 Severe PMS means severe menopause
	8	**#6 PMS gets worse as a woman ages**
#18 More self-critical during PMS	8	
	8	#21 PMS allows us to talk about our feelings
	8	**#22 Emotional part hardest to deal with**
#31 PMS excuse for unacceptable behaviour	8	
#30 Not coping with things prior to PMS	7	
#'s 1, 3, 10, 23, 27, did not achieve significance		

Bold type indicates statements on which the two PMS groups have opposite views.

2) Consensus Analysis of the General Questionnaire

The general questionnaire consisted of 66 statements on menstruation and PMS (Appendix H). Consensus analysis was not successful in regard to all of these statements in terms of the entire group of 43 women. However, it did provide results for two subgroups, an extremely positive group of 10 women and the PMS Group A, the emotional group of 18 women. The results for the two groups will be discussed later in the results section, but an analysis of the general form in an exploratory way will be presented first.

Some of the statements which had mixed responses were removed and a consensus score was derived from a portion of the general questionnaire. When the program was used in this exploratory manner, the number of statements which provided a legitimate consensus score in terms of the whole group was reduced to a total of 45. Table 5.20 on the following page provides a list of the statements on which there was agreement.

There was agreement in the following areas:

1) Health: Menstruation was thought to have a cleansing property and health benefits. Bleeding signified that the body was functioning properly. The cyclical aspect was important and most women could tell when ovulation was occurring. Exercise helped to alleviate changes. Tampon use was not considered to be unhealthy.

2) PMS: Women agreed on the definition of PMS and on its use in society (men use it inappropriately, it is used to devalue a woman's point of view and anger displayed by a woman is sometimes called PMS). There was also agreement that the changes associated

TABLE 5.20: STATEMENTS ACHIEVING CONSENSUS (EXPLORATORY)

AGREE	#	DISAGREE
#1 Normal part of woman's life	43	
#39 Exercise helps alleviate menstrual problems	42	#43 Should avoid discussion in workplace
	42	#53 Embarrassed if mentioned in mixed company
#19 Part of cyclical process	41	
#26 Anger sometimes identified as PMS	41	
#2 Changes are caused by hormone fluctuations	40	
#10 Emotions affected by female hormones	39	
#8 Menstruation has positive health benefits	37	#33 Menstruation is really bad experience
#15 PMS used to devalue woman's point of view	37	#52 Should be kept private
#27 Estrogen has positive health benefits	37	
#55 Spirituality part of being a woman	36	#38 Forces you to take a break
#20 Menstruation not wonderful or horrible	35	#44 Love the experience of menstruation
	35	#48 Menstruation is dirty and smelly
#12 Heightened emotions part of menstruation	34	
#40 Bleeding indicates proper functioning	33	#21 Time to focus on personal issues
	33	#25 Unhealthy to use tampons
#32 Aware of body and time of ovulation	32	#41 Look forward to menstruation
#56 Negative aspect is physical discomfort	32	
#6 Important as means of cleansing body	31	
#45 More positive outlook with feminism	31	
#4 PMS term to describe distressing changes	30	#34 Time to reflect on life circumstances
#11 Sex normal during menstruation	30	
#17 PMS - label men don't understand	30	
	29	#7 Menstrual blood has unpleasant odour
#36 Menstruation natural, but don't like it	27	#37 Like the changes during menstruation
#57 Menstrual product advertising is not useful	27	
#60 Reproductive power part of being a woman	27	
#5 Menstruation is an inconvenience	26	#3 During menstruation feel alive, womanly
#30 Menstruation is bond with women	26	#63 Negative - loss of emotional control
	26	#66 Time to move into the feminine
	25	#58 During PMS not coping well with
#9 Motherhood important part of being a woman	24	
#29 Psychiatric labelling means women are crazy	24	
#49 Changes should not be labelled a syndrome	24	

with menstruation should not be labelled as a syndrome and a feeling that psychiatric labelling was misapplied. They disagreed that coping was a problem.

3) Womanhood: Feminism was important for a more positive outlook and menstruation was considered to be a bond shared with other women. Motherhood and reproductive power were considered important, but menstruation was not a time to reflect or focus on personal issues, it was not a time to move into the feminine and they did not feel more alive and womanly at this time. Spirituality was associated with being a woman, although it not specifically linked to menstruation.

4) Normality: It was a normal, natural part of life and changes were considered to be caused by normal fluctuations of hormones. Sexual intercourse was a normal experience. Emotions were thought to be linked to female hormones and heightened emotions were a part of the menstrual experience.

5) Attitudes: They did not look forward to menstruation and although it was natural, they did not really like it. However,menstruation was not viewed extremely negatively as they disagreed that it was a really bad experience. They also disagreed that menstrual blood had an unpleasant odour. Menstruation was not embarrassing, it should not be kept out of the workplace and it should not be private. The physical discomfort was considered a negative aspect.

Lack of Consensus

There were 21 statements on which there was considerable disagreement among women (Table 5.21). The statements could not be placed within the agree or disagree categories as the numbers were too close.

TABLE 5.21: STATEMENTS ILLUSTRATING A LACK OF CONSENSUS (EXPLORATORY)

STATEMENT	Agree	Disagree
HEALTH		
#16 During menstruation I am more in touch with my body.	17	25
#18 It is important to pay more attention to my hygiene - do not feel that I'm as clean.	18	24
#24 A woman might be tired while menstruating because she is losing blood.	24	18
#42 In general, medical profession treats menstruation as if it was an illness.	18	24
#47 When I am menstruating I am more aware of my connection to nature.	17	25
#51 Menstruation is important because it is a signal for me to take care of myself.	19	20
#65 It is beneficial to reduce some of my activities during menstruation.	22	20
PMS		
#22 Sometimes PMS is used as an excuse for behaviour which is socially unacceptable.	20	22
#54 PMS is a good label - it acknowledges the reality of changes that women experience.	22	19
#61 PMS is a label which reflects negative attitudes toward women's health.	22	18
WOMANHOOD		
#31 Around the time of menstruation, I feel more self-conscious about my body image.	24	19
#35 Around the time of menstruation, I feel like I'm less attractive.	21	20
#13 I would not voluntarily stop menstruating because it is part of being a woman.	23	20
#23 Menstruation is not a major part of a woman's identity.	17	25
NORMALITY		
#46 I function as well premenstrually as I do at other times.	18	24
#50 I function as well when I am menstruating as I do at other times.	20	21
ATTITUDES		
#14 Menstruation is not something I think much about.	20	23
#28 I view menstruation as an inconvenience and an expense.	22	19
#59 More respect given to menstruation so that you could take it easy for a day.	19	24
#62 Menstruation interferes with my life.	18	24
#64 During menstruation women are expected to carry on as if nothing was happening.	19	24

Views were mixed in a number of areas, although there are some important statements which should be mentioned:

1) Some women believed they did not function as well prior to and during menstruation, while others felt that there was no difference.

2) Consensus was split on whether body image was a problem. The importance of menstruation to a woman's identity was also subject to disagreement

3) Women disagreed on whether menstruation was a time of self-care and whether they were more in touch with their bodies at this time.

4) Women disagreed on whether PMS was a good label to describe changes.

Consensus Analysis of Two Groups: Extremely Positive and PMS Group A

As mentioned previously, consensus was not obtained for the 66 statements that comprised the general questionnaire on menstruation in terms of the entire group of 43 women. However, two subgroups did achieve consensus: a group of 10 women classified as extremely positive and the group of 18 PMS women designated as Group A. Only one of the women classified as extremely positive is on the PMS Group A list. Consensus was not found in the PMS Group B. Before dealing with a comparison of these two groups, the results of the consensus analysis will be summarized for each group individually.

Extremely positive:

The average score was .725 with a standard deviation of .135. This indicates that the subjects responded to 72 per cent of the statements in a similar manner based on the pattern

of agreement among the subjects.

A confidence level of $p<.001$ was used and at this level, 83 per cent of the questions were assigned as significant in terms of agreement or disagreement. The sample size of 10 was more than that set by the minimum sample size requirement (7) for this confidence level.

The ratio of the first eigenvalue to the second was 6.63.

PMS Group A:

The average score was .576 with a standard deviation of .168. This indicates that the subjects responded to 57 per cent of the statements in a similar manner based on the pattern of agreement within this group.

A confidence level of $p<.01$ was used and at this level, 86 per cent of the questions were assigned as significant in terms of agreement or disagreement. The sample size of 18 was more than that set by the minimum sample size requirement (15) for this confidence level.

The ratio of the first eigenvalue to the second was 4.66.

Comparison Between the Two Groups:

The differences between the two groups are in the following areas:

1) Health: For Group A it was important to reduce activities around the time of menstruation and this group agreed blood loss could be a factor in feeling tired. There were no specific health concerns for the extremely positive group, other than agreeing with the

statement that menstruation tends to be treated as an illness by the medical profession.

2) PMS: Group A felt strongly that PMS was a good label. The extremely positive group, on the other hand, thought PMS represented negative views in society and felt that PMS was used as an excuse for unacceptable behaviour.

3) Womanhood: Menstruation was important in terms of identity for the extremely positive group of women. This was reinforced by such sentiments as feeling alive, vivacious and womanly during menstruation; feeling more in touch with their bodies; being more aware of their connection to nature; and thinking that it was a time for them to reflect. Menstruation was a time for self-care and a time to move into the feminine. This was not the case for Group A.

Group A agreed that they felt less attractive and more self-conscious about their bodies, while the extremely positive group disagree with this.

4) Normality: Group A experienced loss of emotional control which was negative and they did not feel they functioned as well premenstrually or menstrually. The extremely positive group disagree with these aspects.

5) Attitudes: Group A agreed that menstruation was inconvenient and expensive and it interfered with life. The extremely positive group, on the other hand, liked the changes, looked forward to them and loved the experience. They also felt that it would be a sign of

respect if a woman could take it easy for a day during menstruation.

Table 5.22 provides a partial list of the statements on which there was agreement and disagreement. Only the statements on which the groups hold opposite views will be listed in the following table. The complete list can be found in Appendix K.

TABLE 5.22: COMPARISON OF EXTREMELY POSITIVE AND PMS GROUP A

STATEMENT	EXT POS	PMSA
#3 During menstruation, I feel alive, vivacious and womanly.	AGREE	DISAGREE
#22 I think that sometimes premenstrual syndrome is used as an excuse by a woman for behaviour which is socially unacceptable.	AGREE	DISAGREE
#34 Menstruation is a time to reflect upon circumstances in life.	AGREE	DISAGREE
#37 I like the fact that I go through changes during the menstrual cycle.	AGREE	DISAGREE
#41 I look forward to menstruation.	AGREE	DISAGREE
#42 In general, I think that the medical profession treats menstruation as if it was an illness.	AGREE	DISAGREE
#44 I love the experience of menstruation.	AGREE	DISAGREE
#46 I function as well premenstrually as I do at other times.	AGREE	DISAGREE
#47 When I am menstruating, I am more aware of my connection to nature.	AGREE	DISAGREE
#50 I function as well when I am menstruating as I do at other times.	AGREE	DISAGREE
#57 Menstrual product advertising does not convey useful information.	AGREE	DISAGREE
#66 Menstruation is a time when I move into an inner space, that feminine part of myself.	AGREE	DISAGREE
#5 Menstruation is an inconvenience.	DISAGREE	AGREE
#28 I view menstruation as an inconvenience and an expense.	DISAGREE	AGREE
#31 Around the time of menstruation, I feel more self-conscious about my body image.	DISAGREE	AGREE
#35 Around the time of menstruation, I feel like I'm less attractive.	DISAGREE	AGREE
#36 Menstruation is a natural process, but at the same time, I don't like it very much.	DISAGREE	AGREE
#62 Menstruation interferes with my life.	DISAGREE	AGREE
#63 One of the most negative aspects of my menstrual experience is a loss of emotional control.	DISAGREE	AGREE

There were also some statements that achieved significance for each group

separately, but which differed from the entire sample: eight statements for the extremely positive group and six statements for the PMS Group A listed in Table 5.23.

TABLE 5.23: CONSENSUS STATEMENTS WITHIN THE TWO GROUPS

EXTREMELY POSITIVE	
#13 I would not voluntarily stop menstruating because it is part of my identity and part of being a woman.	AGREE
#14 Menstruation is not something I think much about.	DISAGREE
#16 During menstruation I am more in touch with my body.	AGREE
#23 Menstruation is not a major part of a woman's identity.	DISAGREE
#38 It is important for me to pay more attention to my hygiene when I'm menstruating because I do not feel as clean at that time.	DISAGREE
#51 Menstruation is important because it is a signal for me to take care of myself.	AGREE
#59 There should be more respect given to menstruation so that you could take it easy for a day.	AGREE
#61 Premenstrual syndrome is a label which reflects negative attitudes toward women's health in Canadian society.	AGREE
PMS GROUP A	
#14 Menstruation is not something that I think much about.	DISAGREE
#23 Menstruation is not a major part of a woman's identity.	DISAGREE
#24 A woman might be tired while menstruating because she is losing blood.	AGREE
#54 Premenstrual syndrome is a good label because it acknowledges the reality of changes that women experience around the time of menstruation.	AGREE
#64 It is a problem that during menstruation women are expected to carry on with their lives as if nothing was happening.	AGREE
#65 It is beneficial to reduce some of my activities during menstruation.	AGREE

Chapter 6

Discussion

The forty-three women who volunteered for the research project provided voluminous and detailed information. The research participants found the prospect of discussing menstruation and premenstrual syndrome intriguing and it was clear that the menstrual cycle was not a common topic of conversation except among some of their close friends. This type of study, based upon the experiences, thoughts and ideas of women themselves, is an integral part of research on menstruation and PMS. This is particularly the case if an understanding of women's experiences of cyclical change is the focus of the research.

One of the strengths of this research project was that it utilized a data collection method based on intensive open-ended interviews. This method allowed the participants to speak about their experiences and feelings in great detail and it also provided the opportunity to pursue a line of questioning specific to the individual. The only drawback to this type of method is the production of a vast quantity of material which is difficult to analyze in a concise manner. The use of intensive interviews also provides data that are generally not amenable to measurement using quantitative statistical procedures.

Since one of the major goals of this project was the collection of original data on menstruation and premenstrual syndrome among a sample of women in Manitoba, the aforementioned problems were not considered to be major limitations. The backgrounds and understandings of the women in the study, despite being a volunteer sample, proved to be quite variable. There was an interesting mix of women who reported severe changes; women

with few or no changes; women who associated their changes with the PMS label; women who did not use the PMS label; women who were critical of the use of the term PMS; women who were extremely positive; women who were extremely negative; and women who were ambivalent. The women were, for the most part, well-educated and there was a wide range in age, from 19 to 55 years.

In addition, a second method referred to as consensus analysis was employed in the study. The consensus portion was useful in providing another way with which to analyze the data, specifically in the area of identifying shared cultural knowledge, particularly among subgroups of the entire sample. This method was also important as a verification of the interview data.

Consensus analysis has not been used previously in menstrual cycle research. Most of the applications of this method concern the analysis of specific domains, for example, differences in knowledge of manioc plants (Boster, 1986) and variations in knowledge about the causes of high blood pressure (Garro, 1988). In my study, consensus analysis of the questionnaires on menstruation and PMS among the entire group was not successful. The reasons for lack of consensus may be that menstruation and PMS are such large domains and women's perceptions, attitudes and experiences are extremely variable. However, consensus analysis was useful in differentiating subgroups within the entire sample and within the PMS group.

Even though the results were not successful in terms of the entire group, the analysis itself provided considerable information concerning basic agreement and disagreement among the sample in relation to specific statements. By removing some of the statements

which had mixed responses, it was possible to derive a consensus score from a portion of the general questionnaire. The consensus analysis program was effective when used in an exploratory way to isolate those statements which could possibly be used in future analysis. This may not be a common utilization, although it would appear to be constructive one in the overall design of a consensus questionnaire in order to test areas where consensus might be obtained.

Both sources of data (the intensive interviews plus the consensus analysis) were integral for the discussion pertaining to women's knowledge and understanding of menstruation and PMS. As often as possible quotes from the interviews will be used to illustrate the salient points and issues that emerged from the research. The participants expressed themselves fluently on a multitude of subjects and what better way is there to understand their feelings about menstruation and PMS than to have them conveyed in their own words.

Attitudes toward menstruation will be addressed first, with the inclusion of some general information on menstruation derived from the interviews. A discussion of premenstrual syndrome will follow and then health and sickness conceptualizations will be presented. I conclude this section with some general comments on the use of the qualitative analytical method.

Attitudes

Most of the women in the sample were classified as slightly positive in attitude. This categorization was based on two elements: women rated their attitudes towards menstruation

on a scale of 1 to 10 with the average being 6.5; and they also provided a description of their feelings. Every woman thought it was a normal, natural part of life and indeed it would be surprising if women did not believe this to be the case.

> **Sherry: "Everybody goes through it, it's natural. It's not something that's invading you, like they used to call it, someone's visiting you . . . it's just a natural process that we all go through."**

Menstruation was considered to be a healthy experience and to the majority of women the positive aspect outweighed the negative. At the same time, most women thought that the view of menstruation within our culture was a fairly negative one, even though there was more discussion about it in a public context.

Positives and Negatives:

When women were asked to describe the positive factors of menstruation, the most frequent response was the potential for reproduction, although the next most frequent comment was that it was a sign of womanhood. One woman had a problem at first trying to think of any positives even though she considered menstruation a normal part of life.

> **Laurel: "What's there to like? I don't know . . . Like I'm thinking of it as being a normal process so what would there be to . . . it's just this expected thing. What's there to like? I guess, just that it's part of being a woman, womanhood and the ability to bear children and that. What else? That's about all I can think of."**

While the link to reproduction was a common theme, as was expected, the actual bleeding was a positive sign for those women who did not want to become pregnant. The possibility of pregnancy was a positive for some and a negative for others so it embodied a contradictory mix of feelings.

The reproductive link was not an important factor to some women who felt that other experiences were more significant. The qualities they mentioned appear to revolve around a heightened awareness of their bodies and their capabilities.

> **Jackie: "Creativity, my emotions are heightened which can be a positive or a negative depending on what I'm doing. Sometimes a feeling of strength during my period."**

Menstruation was thought to be important in terms of cleansing and it was valued because it was a cyclic event. Menstruation was considered a bond shared among women and motherhood was an important part of being a woman. Womanhood meant motherhood to many women and attributes such as caring, nurturing, sharing, sensitivity and responsibility were mentioned as being part of that. Spirituality was also associated with womanhood.

> **Marsha: "It's almost a spirituality that goes with that whole sense of being a woman and again I think you're very blessed with the ability to procreate. So to me that's just an awesome responsibility. I think we're the gatekeepers of the world, we just have to take our job a little more seriously."**

Others felt that menstruation was not important to their identity and there were mixed views on the statement that menstruation was not a major part of a woman's identity.

In answer to this question, "If you could stop menstruating, would you?", more information was provided on the meaning of menstruation. The sample was almost divided: 20 answered yes to this question while 22 responded with no.

One woman expressed her feelings this way:

> **Celeste: " I wouldn't voluntarily say no to it. Cause it's part of being who I am, of being female, of being a woman . . . and that's the thing that I have that's mine, that's part of my identity."**

However, for another women, menstruation was a negative experience and this outweighed any identity issues for this woman.

> **Claudia: "Yes. I don't find this experience pleasant in any way and so I'd do away with it if that was possible."**

Some women remarked that they did not want to stop because they wished to have children in the future. Another reason was that menstruation was not a major inconvenience; it was not bothering them a great deal. Other women did not mind if menstruation ceased as their childbearing years were over, either they already had children or they felt they were too old to have children or they did not want to have children. One woman thought it was a terribly odd question to ask:

> **Tanya: "For a healthy reason, yes, I'm happy to stop menstruating when I'm pregnant or breastfeeding. To stop for an unhealthy reason, no. That's a funny question. If you could stop breathing, would you (laughter)?"**

As might be expected, there were more older women who wished to have the process end, although this desire was not only restricted to women who had menstruated longer. However, to some of the older women, menstruation had gone on long enough and they were looking forward to menopause. Myra, who was 55 and still menstruating, stated it this way: "Will it ever end?" Joan, 49, expressed it this way:

> **Joan: "I can't wait for it to stop (laughter). Oh, I thought it had, but nature foiled me again (laughter). I just turned 49 and my mom was menopausal around 46 so I had hoped by now it might be finished."**

Feminism was considered to be a factor in whether or not menstruation was viewed positively. In response to the consensus statement that feminism has helped to provide women with a more positive outlook on menstruation, 31 of 43 women agreed. Women

described feminism as providing them with a more positive sense of self, more awareness of their bodies and of their strengths.

Some women were not sure what feminism really meant and they referred to the confusing array of different perspectives on feminism. Basically, to these women, feminism meant equality, treating all people in the same way and achieving respect for themselves as women. Some women felt that emphasizing difference was not a positive aspect.

> **Colleen: " Well I actually have a problem with some of this stuff because my bottom line is that people are people are people. Some of them are of the male gender and some of them are of the female gender, but it doesn't make one wit of difference. So for me, being a woman is really being a person, the same as anything else."**

Exercise helped to alleviate changes associated with the cycle and women noted that regular exercise such as walking every day was useful for both physical and emotional changes associated with the cycle.

Sexual intercourse was a normal practice for most women during menstruation. This activity was not a topic that all women mentioned in the interviews. However, in response to the consensus statement on sexual practice, 30 women agreed that sexual intercourse was a normal experience. Some women stated that this activity was one they avoided, but they did not provide any reasons. One women acknowledged that she abstained from intercourse and she wondered whether there was a medical reason for avoidance of intercourse or whether it was because blood flow was heavy and engaging in intercourse was messy.

The subject was raised in a number of interviews by women who were curious about the response of other women to this subject. Women who were comfortable with sexual intercourse during menstruation wondered if their own behaviour was considered abnormal

by others as there was not much information with which to compare.

Emotions were linked strongly to the presence of female hormones; 39 women out of the 43 agreed with the consensus statement. Heightened emotions were also considered part of the menstrual experience. The belief in increased emotionality around the time of menstruation was commonly accepted (this will be discussed in detail in the health and sickness section). Changes were also thought to occur due to normal fluctuations in female hormones.

While women felt menstruation to be a sign of health and a normal, natural process, it was also considered to be an inconvenience: 26 women agreed with this on the consensus form. Knowing when menstruation would occur and ensuring that they had tampons or pads to deal with the flow was a key component of their feelings of inconvenience. It was inconvenient in terms of clothing: they avoided tight clothing and light colours. To some the hassle of dealing with the blood was a major factor.

Still others referred to the fact that some of the changes, emotional instability or irritability, interfered with their sociality and also severe physical changes could hinder their activities. If a woman had severe cramps or a headache, she might not want to go out or be extremely energetic. In other words, it was disruptive:

> **Louise: "It's a disruption. I don't like having to plan for it. You know, I'm going away on a holiday, well, I don't want to know that my back's going to hurt or my stomach's going to hurt and I might have a headache . . . it's an extra thing to worry about. Making sure you have enough tampons, making sure you have enough anacin. Can you flush those tampons where you're going? Is it okay for them to go in the septic field? I don't think so. Will the dog eat them? Yuk! I mean, none of this is a big deal, but you do think about it."**

The expense was also considered to be a problem as was dealing with pads and the

worry and odour, although the majority of women did not think that menstrual blood had an offensive odour. In most cases, the inconvenience did not interfere with their life. The availability of tampons had an influence on making the process less bothersome.

Tampons were used by the majority of women in the sample: 27 used tampons, although most would use pads at different times as well, while 15 consciously avoided tampons and used pads exclusively. A few women relied on cloth reusables and a couple of women used a keeper, a reusable rubber cup that fit over the cervix to collect the blood.

Only a few women were worried about toxic shock. This infection was linked to the use of tampons, in particular tampons that were super absorbent. It was first identified in the early 1980s, associated with a brand of tampons that was subsequently removed from the marketplace (Armstrong and Scott, 1992). Toxic shock does not occur frequently, although deaths from this illness are still reported. When it was first publicized, many women thought that the sale of tampons would decrease significantly and while a slight decrease did occur at the time, the illness overall appeared to have little effect on the menstrual habits of most women.

In response to the statement that it was unhealthy to use tampons, 33 women disagreed and in conversation about toxic shock most stated that it was not a concern. As long as good hygiene was practiced, in other words, if the tampon was not left in the body too long there should be no problem.

> **Marg: I read the warnings when they came, but I guess because I've never had any problem that it was sort of a non-issue . . . I'm conscious of changing my tampon before I go to bed . . . I don't put one in at six o'clock in the evening and wait til eight o'clock the next morning. I mean I always change it last thing before I go to bed. So I am somewhat aware of the toxic shock implications or**

potential so I can't say that I completely ignore it. But I've also never worried about it enough to prevent myself from not putting one in."

Not all women were as sanguine as Marg and a few commented that they would not use them at night. Others stated that because of the toxic shock issue they now used pads exclusively.

Extremely Positive Feelings:

One of the most surprising results of the study was the identification of a subgroup of 10 women who comprised the extremely positive category (Appendix L). The relatively high number was intriguing, in part, because of the sampling technique used in the study. It might be expected that the sample would consist of more negative responses as women who have problems and wish to talk about them would volunteer more frequently. While there were women with severe problems and negative attitudes, they were clearly not in the majority. The argument could also be made that, in general, women who were comfortable with the process or accepted it or were more positive about it might respond to the appeal for volunteers. Whatever the reasoning, the extremely positive group warrants special attention.

Extremely positive attitudes are not discussed frequently in the literature. In a study by Scambler and Scambler (1985) on symptoms, attitudes and consulting behaviour, attitudes were separated into three categories: acceptance, fatalism and antipathy. Twenty-five per cent of the sample were placed in the acceptance category. The authors stated that it was this category in which women came closest to displaying a positive attitude referring

to it as healthy and feminine. In general, they felt menstruation to be a normal part of life and were minimally affected by symptoms. Their largest group comprised the antipathy category, 48 per cent of women, who clearly disliked menstruation and who also had the greatest symptom distress. Corney and Stanton (1991) reported that in their study 60 per cent expressed negative feelings toward menstruation.

The results of the Menstrual Attitude Questionnaire indicated that women in my study did not find menstruation to be bothersome or debilitating; menstruation was a natural event; it was somewhat predictable; and they did not deny its effects. Two other studies (Brooks-Gunn and Ruble, 1980; Woods, Dery and Most, 1982), found menstruation to be slightly bothersome, but on the four other factors, the results were similar to those of the present study.

The only one of the five factors of the MAQ that could be regarded as somewhat positive is factor 3, menstruation as a natural event. However, based on the responses of women in my sample, this factor can not be considered to be positive. Factor 3 consists of five statements (see Appendix F). When these statements were analyzed in terms of the five categories constructed from the interviews, the following scores were obtained: extremely negative - 3.73; slightly negative - 5.31; ambivalent - 5.13; slightly positive - 5.01; extremely positive - 6.29. If this factor is taken to indicate positivity, the only group that it identifies correctly is the extremely positive group. However, if it is an indicator of menstruation as natural, then based on the statements a higher score would be expected from the extremely positive group with a low score from the extremely negative group. The other groups could be close numerically because menstruation as a natural process was a factor in many of the

responses from the slightly negative, slightly positive and ambivalent groups. It is important to note that Brooks-Gunn and Ruble who produced the measurement instrument identified Factor 3 as a positive factor initially, but based on further analysis they changed this to indicate menstruation as natural.

Attitudinal measurement questionnaires are extremely hard to devise. Based on a very preliminary analysis, the MAQ appears to provide a measure of menstrual attitudes comparable to my scale, although the factors themselves do not provide much information. In addition, statements which probe a more positive viewpoint are needed.

The 10 women who formed the extremely positive group are a diverse group. It includes women both with and without children (three women have children); six were single women, one was separated, one was divorced, one was living with a male partner and one was a lesbian woman. Five were students and three were born outside of Canada (Brazil, Switzerland and England).

The women range in age from 21 to 42 years with a mean of 30. Four of the ten use cloth reusable pads, the majority prefer to use pads instead of tampons and seven out of the 10 experience PMS, although their discourse about PMS differs from the majority of women in the sample who also experience it.

Consensus analysis was conducted on these 10 women and there was a considerable difference in the statements that they agreed with in comparison to the entire group. Some statements were answered in a similar manner, for example, that menstruation was a cleansing process and that it had positive health benefits. Also, the statement on the link between emotions and hormones was the same as was the idea that menstruation is a bond

with women.

The extremely positive group differed most on the connection between identity and menstruation. They felt that menstruation was important to their identity as women, although this relationship did not include the role of motherhood as there were mixed responses on whether motherhood was an important part of being a woman.

A number of attributes were linked to their sense of identity. The extremely positive women felt they were more in touch with their bodies; they had more of a connection to nature; and they were more alive, vivacious and womanly during menstruation. They believed that they moved into the feminine or an inner space at menstruation; it was a time for them to reflect on their life; menstruation was a time for self-care; and it was not an inconvenient process. In some ways, particularly when the issue of self-care is addressed, they appear to have a greater awareness of their own bodily needs. For example, they recognized the need to slow down, to get away from people, to pamper themselves more at this time. Due to this awareness they felt that there was no difference in the way they functioned prior to and during menstruation.

Consensus was reached on statements which referred to liking the changes, loving the experience and looking forward to it. The extremely positive group disagreed strongly with the two statements on body image. They did not feel less attractive at this time, nor did they feel more self-conscious about body image. These statements had mixed responses in terms of the entire sample which points to the fact that traditional views of female body image in our society are undergoing change. However, the extremely positive group appeared to have resolved that conflict.

The following quotes from some of the extremely positive women illustrate their feelings about menstruation:

> **Leslie: " I think it's a wondrous event, how the body can collect nutrition for a potentially growing egg and then just let it go . . . I find it a time for introspection, and reflection and being more in touch with my own body. I feel positive about it."**
>
> **Jane: "It's pretty cool that we can do that, like we can bleed without hurting and without it challenging our health . . . it's a pretty cool process what our bodies can do . . . I feel more creative and more in touch with myself . . . it's like a reaffirmation of my womanhood."**
>
> **Aset: "It's a part of being a woman . . . it's who I am, it's what I am . . . so to me, menstruating was always shown as a very powerful time for a woman because she was with the moon and the moon is a strong thing and the forces that are between women are even stronger when they are menstruating. So I love it, I think it's fantastic, it actually feels like a relief now when I do menstruate."**
>
> **Marie: " I like the fact that I go through changes and that I have different perspectives at different times. I like the feeling of menstruating, like I feel that then I'm normal . . . I suppose it has to do with wanting to have children, that it means that there's a possibility . . . And I just like the feeling, the calmness I have during menstruation."**
>
> **Zena: "I think as I get older and sort of seek to define my own spirituality I think I see that as being a part of it . . . it is very much a part of nature and the cycle of nature, it comes with the ebb and flow of the tide and the waning and waxing of the moon and that sort of thing. And I like that, it gives me a connection to the cycles . . . it gives me a good connection to my body."**

These strongly worded sentiments illustrate that menstruation is very connected with their sense of self and their sense of being a woman.

The majority of the extremely positive women used pads more frequently than tampons, although all of the women did not use pads exclusively. Dealing with the blood flow more openly instead of hiding it with tampon use appears to be one of the factors important to a more positive acceptance of menstruation. One woman had experienced

severe PMS changes until she stopped using tampons and pads (except for cloth reusables).

> **Holly: "And a big part of stopping using all of those whiter than white products was actually facing the blood and facing the changes and not just plugging myself up and turning away from it. So it had a big part in getting less ashamed and trying to deconstruct why I was ever ashamed or why I was ever disgusted by something that was totally natural."**

One of the women in the extremely positive group used a keeper, also used by one other woman in the sample, although others were aware of it. This interesting piece of equipment is a small round cup, made of rubber, curved on the bottom with a narrow piece protruding from this surface so that it could be grasped and removed. The keeper which has three holes along the edge fits over the cervix and is kept in place by suction.

To the women who used it, the keeper was more comfortable than a tampon. It took some practice to insert, but once that was achieved, all that was required was to empty it regularly, wash it out and reinsert. The woman stated that in order to use it you must be comfortable with your body and with the blood because you have a more intimate contact with both. Also, if you are in a public washroom, you must not be self-conscious about washing it out and not all women are comfortable with this. They also made the point that you get a much better idea of how much blood is being removed. The keeper holds one ounce and most women flow two to four ounces during their period.

To most of the extremely positive women, the blood itself was positive.

> **Mary: "I like the blood visually. Now I mean, it probably sounds bizarre, but visually I do. I have an art piece where I put a piece of satin cloth and did a little print on top as part of my sculpture. So visually is part of it because it's tied into the fact that I think, in my heart of hearts, I believe that we're very instinctual . . ."**

This positive attitude was very different from the way in which women in the entire

sample related to the blood. Blood flow associated with menstruation was generally acknowledged as a negative event and some women felt that this connection could contribute to menstruation being viewed in the same way (this point has been made previously by Ruble and Brooks-Gunn, 1979). The term bleeding was a common usage only in the extremely positive group.

Regarding the changes that these women experience, they appear to have a different way of perceiving and dealing with them. Their awareness of increased self-care around the time of menstruation varied considerably from the women in the rest of the sample. As much as possible they tried to take more time for themselves, either they engaged in activities they found relaxing and pleasing or else they attempted to spend time alone or they tried to sleep more. Some of the women noted that, even though their changes were problematic, these changes were positive factors in their lives.

> **Marg: "It does impact on my life and I change my lifestyle to accommodate it or to manage it and to get through it the best way I know how . . . I don't see PMS as something that's outside of me or that impacts me from the outside . . . It's me, it's just me and my hormones. It's me."**

> **Rosemarie: "My biggest wish would be that on the day that I have my period that I'm absolved from anything outerworldly, that I could just sit around and have a bath and read and not have to take care of a child and make meals . . . my body is doing its thing. And my periods are painful, but it's also a time when I can reflect and it's really valuable . . . it's moving into that feminine, that inner space."**

In terms of the extremely positive women who didn't experience PMS, they referred to their changes as natural and normal.

> **Emily: "I think my body experiences changes throughout the course of a cycle, but those changes are necessary, normal and healthy."**

Emily was also one of the women who did not experience severe change and while she did not talk about menstruation in impassioned terms she had an extremely positive viewpoint much of it having to do with her feminist views. In fact, most of the women had no hesitation in describing themselves as feminists.

This group is described in detail because there is not much literature concerning women who are extremely positive about menstruation. Based upon the discussion above, the point can be made that they are significantly different from the other women in the sample particularly in their perception of womanhood and the key attributes that contribute to their identity. These women appear to take a more active role in determining their own identity; it is not something that is imposed upon them in terms of traditional societal values. They are more aware of their bodily needs and the ways in which they can minimize changes by dealing with those needs more adequately. There will be more discussion of this group in the context of health and sickness.

Extremely Negative - A Case Study:

There were six extremely negative women and, in general, these individuals experienced severe changes in their bodies around the time of menstruation. This does not seem to be an unusual finding. Women who experience severe pain, very heavy blood flow, or extremely severe PMS would probably not view menstruation positively, although, with the exception of one woman, they all felt that there were some positive factors, e.g., the potential for reproduction. When the entire group of 43 women was subjected to consensus analysis of the revised statement list (the exploratory work), the MDS depiction was

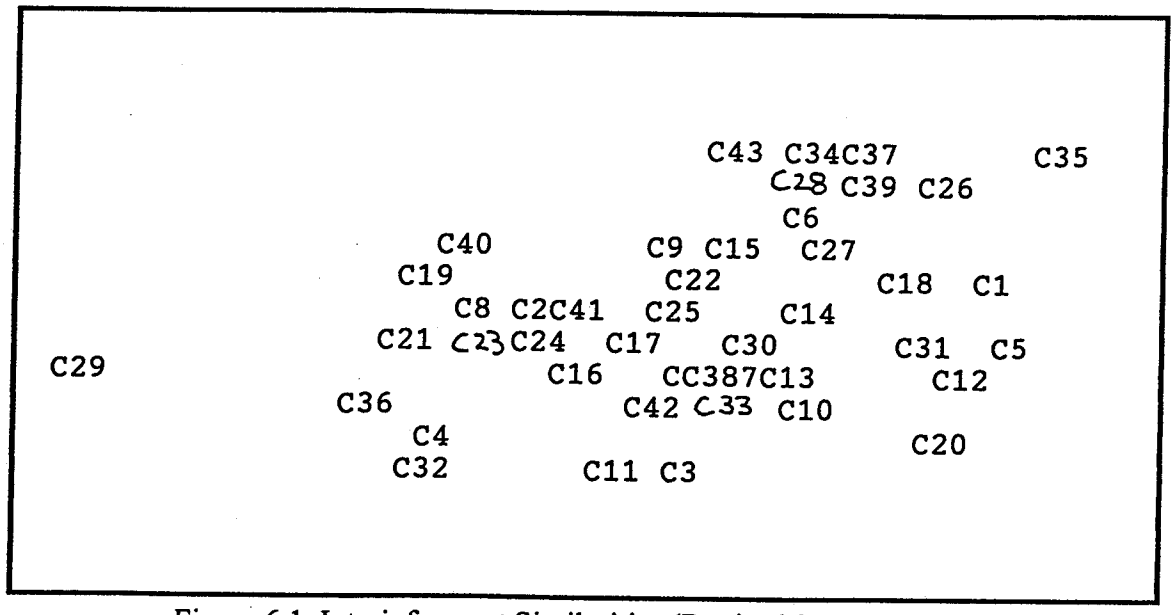

Figure 6.1: Interinformant Similarities (Revised Statement List)

interesting. Figure 6.1 shows C29 to be the outlier in terms of the sample.

C29 refers to a woman with the pseudonym of Brenda. I want to provide a brief case history of this individual and then compare her responses to the rest of the group.

Brenda was 27 years of age and she had always experienced severe changes around the time of her period. In fact, her menstrual cycle was very irregular. She could go for six to eight months without a period, but she always experienced PMS. When she did menstruate, she experienced a lot of pain and a heavy blood flow. Brenda felt sick during menstruation, and she regularly had to take sick days from work. She also tended to isolate herself and expressed how she felt in the following statements:

> **"I get a very large feeling of loss of control, feel completely overwhelmed with life . . . I can't concentrate. I get very confused."**
> **"I hate myself. I do not feel comfortable in my own skin. I just feel like I'm a complete failure."**
> **"If only I didn't have these stupid PMS signs. Cause as far as I'm concerned I could go through my entire life . . . I don't want children. As far as I'm concerned I don't need to menstruate."**

Brenda disagreed with most of the statements that achieved consensus in the exploratory analysis. She did not feel menstruation represented cleansing or health and it was not important in a cyclical sense. Motherhood was not an important part of being a woman, menstruation was not a bond with other women, and she did not feel spirituality was part of being a woman. She agreed with the statement that menstruation was a bad experience, it should be kept private and that there should be a day to take it easy. She also felt that using tampons was unhealthy.

However, she did not consider hormones to be the cause of PMS (causality based on hormone levels was by far the most common explanation of PMS from women in the study). Her hormone levels were checked by a doctor and they were found to be within a normal range. Her doctor told her she just had a "bad system" and she believed that she had some chemical problem which made her more vulnerable than other people.

When asked about what it meant to be a woman, she stated that she had no idea how to answer this question because she had never been asked that before. In the area of feminism, she felt negative about it, but acknowledged that she did not know very much about it.

Her attitude appears to stem from the experience of menstruation which is clearly a bad time for her. Brenda commented that, ever since she was 12 years old, she has experienced negative changes. Other than isolating herself when her period starts, doing some writing and talking to close friends about it, there is nothing that she can do in the way of treatment to lessen the problems. Even the one positive that most extremely negative women mentioned which was the ability to have children was not a positive for Brenda as

she did not want children. It may be that her extreme experience of menstruation, the pain, the heavy flow when it comes and the irregularity, is symptomatic of another problem, although what that might be has obviously not been diagnosed as yet. Brenda's explanation was that she experienced severe PMS. The question of whether there are differences among women in their experience of PMS will be discussed in the section on PMS.

Attitudes Toward Menarche:

A section of the questionnaire dealt with women's recollections of their first menstrual experience. While it was a difficult task for some to remember the specific event, most were able to provide some information about the experience.

The age at which they had their first menstruation ranged from eight to 18 years, the mean age being 12.8 years. Most women who experienced the event later in their teenage years expressed that they were relieved to finally have a period and felt quite proud. Others who were only slightly late also remember similar feelings.

> **Ricki: "I can remember being anxious cause everybody else had them and I was 13½ before I got mine. Everybody else had their period and yeah, I remember I was kind of proud . . . So it was a mixture of a kind of pride and I had this feeling that I was really really obvious."**

The recollection of pride was combined, in many cases, with embarrassment which was the most frequently recalled feeling (35 per cent). The women who experienced embarrassment mentioned that it felt like everyone knew that they had started to menstruate, that everyone could tell. Of course, they realized this was not the case, but it caused embarrassment, nevertheless. It was an event many wanted to keep secret.

Ula: "I remember my mom's reaction and my reaction to her reaction. She was very proud of me and she wanted to celebrate my entry into womanhood and she'd read in a magazine that it's really important to celebrate that with your father. So we had a little cheese and cocktail stuff with my father and I was so furious with her for having told him . . . I didn't want anyone to know, like you're not supposed to tell anybody this."

Other feelings recalled were excitement, fear, worry, confusion, discomfort, and unhappiness. These feelings comprised the first seven in terms of frequency. More positive recollections had a much lower frequency, for example, five women felt calm, while four felt relieved and proud.

Most of the women recollected that they knew about menstruation before their period started. Only four women did not receive any preparation. There was a reluctance among the womens' families, in general, to deal with the topic and most women learned about it from classes in school and from friends. One woman remembers disagreeing with her mother about the effects of menstruation:

Ann: "I told my mother when we were at the cottage and my mother just panicked and she was really upset about the whole thing . . . she said, you have to go lay down, you have to go lay down because you're losing a lot of blood, you're very weak right now. And I said, mother, that's ridiculous, that's not the way it is at all. This is perfectly natural."

A study by Chrisler and Zittel (1997) examined the menarche stories of 96 college women with an average age of 20s. The women comprised four different ethnic groups, one of which was American. Chrisler and Zittel reported that among the American students the most common feeling expressed was that of embarrassment, although most had received adequate preparation from family, friends, teachers and books. An interesting study in terms of comparison would be one on the attitudes and experiences of girls today who had recently

experienced their first menstruation.

Premenstrual Syndrome

As mentioned previously, 32 women reported that they experienced PMS. This group was by no means totally consistent in the way they thought about PMS. Some women used the term, premenstrual syndrome, uncritically; some used it reluctantly; and some were extremely wary of labelling changes around the period as PMS.

All of the 32 women completed a consensus questionnaire on PMS, but consensus was not found on the statements in terms of the entire sample of PMS women. However, from the MDS depiction of interinformant similarities displayed in Figure 5.1 (page 82) of the results which loosely pointed to the existence of two separate groups, consensus analysis was conducted on these two groups and both groups achieved consensus. The analysis suggested that women could be placed in one or another of two groups based on the fundamental nature of their changes: there was a group of 18 women (Group A) who were subject to emotional symptoms primarily and a group of 14 women (Group B) who experienced physical symptoms predominantly (Appendix L).

The two groups were compared based on the statements they agreed and disagreed with. In terms of agreement, most women thought that it was a good thing that PMS had been identified, although it was more appropriate to refer to changes rather than symptoms. Also, a majority of the women felt that PMS should be used only with changes prior to the period, not changes during the period. This delineation is directly at odds with the general research definition of PMS which accepts symptoms prior to and during the period and it

indicates that some confusion exists between the lay and the research definitions.

The five most common symptoms in the group of 32 women were moodiness (69 per cent), irritability (59 per cent), sensitivity (56 per cent), water retention (53 per cent), and depression (50 per cent). In contrast, the first five symptoms of the 11 women who did not experience PMS were cramps (64 per cent), moodiness (55 per cent), breast tenderness (55 per cent), water retention (45 per cent) and fatigue (36 per cent). Both groups experienced moodiness, but not all women placed it within PMS. Also, it is interesting to note that four of the first five symptoms among the women with PMS were emotional ones, while four of the first five among the women who did not experience PMS were physical.

Women agreed that PMS did not affect their life severely, although it tended to lower their self-esteem. Relationships with friends and family were sometimes strained due to the emotional aspect. They disagreed with the statement that there was not much they could do about PMS. Exercise was helpful as was refraining from consumption of alcohol, sugar and caffeine. Most women avoided social situations and some would reschedule activities if possible. Many different treatments were mentioned as providing relief from PMS changes: women in the study mentioned using vitamin B6, evening primrose oil, St. John's Wort, Prozac, diuretics, painkillers, aromatherapy, warm baths, relaxation tapes, isolation and stretching and breathing techniques (these are just some of the treatments listed separately in the results).

Only one woman had received a prescription for Prozac from her doctor for the treatment of PMS. Other women mentioned taking Zoloft and other antidepressants, although they stated that these drugs were not prescribed specifically for their PMS

symptoms. Some women used more natural relaxants, St. John's Wort, for example: these herbal remedies have received widespread commercial exposure in the last few years.

Both groups agreed that having PMS was like being on an emotional roller coaster and both were more self-critical at that time. There was also agreement that having a child did not decrease the severity of PMS (this issue will be addressed further in the health and sickness section). The hormonal explanation was the most common cause cited for PMS.

Women in both groups also felt that they were blamed for experiencing PMS and they felt that in order to understand PMS, a woman must experience it herself. Agreement with this latter point emphasizes the feeling many women have that PMS is generally misunderstood by people in society. It appears to be something that separates women as a group - those who experience PMS talk about it freely - and there is a certain understanding amongst themselves when they refer to it. However, if someone does not experience it, e.g., other women or men, there is a feeling that they tend to dismiss it.

There were 11 women in the sample who did not experience PMS. In general, these women did not dismiss the existence of the disorder; they felt that it was a real entity, but they acknowledged that there were some problems in the way in which it was perceived. They were not overly critical of women who had PMS.

The differences between the two PMS groups are interesting to analyze, especially the statements which were answered in completely opposite ways. The differences between the two groups are as follows:

1) In Group A, the emotional part was the hardest; in Group B, the physical was the hardest part.

2) In Group A, depression was one of the worst symptoms: Group B disagreed with this statement.

3) Group A agreed that during PMS they hated themselves and they felt like victims of their hormones: Group B disagreed with both these statements.

4) Group A agreed that it felt like everything was falling apart and they didn't feel normal, either mentally or physically: Group B disagreed with both statements.

5) Group A agreed that PMS gets worse with age; Group B disagreed.

6) Group B felt that creativity was a part of PMS: Group A disagreed.

7) Group B felt that the term PMS diminished and demeaned women and thought that PMS was viewed as an excuse for unacceptable behaviour; Group A disagreed with both these statements.

The above points illustrate a fundamental difference between the two groups. The changes that Group A experienced are more emotional than physical with depression a major symptom. This is clearly not the case for Group B. The suggestion that there is a difference in the experiential aspect of PMS (emotional vs. physical) tends to support research which points to subgroups within PMS sufferers. In the early 80s, Abraham (1981) designated four categories of PMS which separated physical aspects from emotional ones. Also, recent research by Strickland (1997) reports on symptom patterns and identifies different groups within women who experience PMS, in particular, a non dysphoric PMS and a dysphoric PMS. The non dysphoric group experienced mild changes, while the dysphoric group had severe symptoms, one of which was depression, depression so severe that they contemplated suicide.

In Group A, 16 of 18 women mentioned that depression was a major symptom of PMS. In Group B, only three of 14 women experienced this symptom. There were only two women (one from each group) who indicated that depression was not a part of PMS. These two women stated in their interviews that depression made their PMS worse.

Depression as a symptom of PMS is difficult to isolate as it affects so many other feelings and emotions. Can symptoms like mood swings, anxiety, tension, sadness, anger and irrationality be distinguished as completely separate symptoms of PMS if a person is subject to depression? According to the requirements for Premenstrual Dysphoric Disorder in the appendix of the DSM-IV, depression must be distinguished from affective disorders like Major Depressive Disorder. Differentiating affective disorders is not an easy task. Depression, whether it is chronic or acute, a major disorder or a minor one, is a condition which could have implications in the reporting of a number of other symptoms.

Only one of the 11 women who didn't experience PMS mentioned depression to be a change that they associated with menstruation. The almost total absence of it in the non PMS group, along with the low number of women in Group B who identified depression to be a symptom, tends to support the idea that depression requires more study in its role in PMS.

There was agreement among women in Group A with statements like "I hate myself" and "I feel like a victim of my hormones". These are strong statements and they were worded in this way precisely to ascertain if women would agree with such a staunch view. "Hating the self" implies an extreme dissatisfaction with oneself (also noted by Cummings et al. (1994) in a study of PMS women). The women in Group A also experienced feelings

of low esteem and had problems with body image (this is supported by responses to the general questionnaire which will be addressed presently). Also, "feeling like a victim" indicates that the individual has little control over their response to menstrual changes. This feeling, as well, was supported by a statement which achieved agreement in Group B, but had mixed response in Group A: "I don't let PMS control me because I will do things I've planned." The control issue coupled with dissatisfaction with the self are important issues that distinguish the two groups.

Also, Group A agreed with the following statements which received mixed responses from Group B: PMS reflected a hormonal imbalance; they felt that PMS was a problem for them; PMS was a way of making sense out of something that didn't make sense; and they did not experience any feelings of strength and well-being during PMS, that is to say, no positive effects.

In contrast, Group B felt that PMS could be positive at times and they agreed that if a woman was not coping well with issues in their lives during PMS, it reflected that these individuals were not coping well at other times. They also disagreed that having severe symptoms meant a woman would experience severe menopausal symptoms. Group A had mixed feeling about this.

The following interview excerpts from the women in Group A provide examples for the predominance of emotional components in their experience of PMS:

> **Gwen: "I feel very down and I cry easily over stuff . . . so I'm quick to have my feelings hurt , quick to cry, quick to be agitated about stuff that probably isn't all that big a deal . . . . I mentally feel blue, depressed . . . it's an ugly sort of mood."**

Jody: " The hardest is the emotional instability. I want balance, I want peace in my life and I don't have it premenstrually . . . . I hate myself. I have low self-esteem. I feel fat, I feel ugly, I feel unloved."

Rachel: "It's almost like you open the door, everything's calm, you open the door and you're suddenly in this turbulent situation with tons of people around you and the doors locked and you can't get back out again."

Carol: "There is a time each month where I seem to be at the mercy of a hormonal thing going on . . . it's just like a force surrounds me and picks me up and takes me wherever it wants to go."

Ula: "Sometimes PMS just sort of takes over and it's not very predicable . . . so it's irritating, it really disrupts my life . . . I'm an emotional basket case, very unpredictable."

Group B acknowledged that some of the changes they experienced could be positive and that other factors could be involved in a woman's perception of her feelings. To some, it just wasn't that important.

Jackie: " Sometimes I get horrible periods. And really bad PMS, but at the same time, I find the changes amazing. And my dreams are incredible around that time and I write poetry and fiction so I mean it's sort of a peak of creativity for me."

Michelle: "When I realize why my back is achy, I'm glad that I have those symptoms because that means I'm normal again, that I'm menstruating again."

Myra: "It's not a thing that's been so awful for me that I've ever focused on."

Marie: "I guess it (PMS) can be a major problem for some women and I think that (its) our lifestyle . . . lifestyle also means expectations put on us, those expectations that we internalize. What we do to ourselves to try and be what we're supposed to be. I say that because I've found as I've been able to drop those expectations I've become much healthier, I'm less confused and I'm less crazy."

Only Group A achieved consensus on the general questionnaire when they were analyzed separately. There was consensus among Group A on a number of statements which

received mixed responses from the whole group:

1) They agreed that they were more self-conscious about body image and felt less attractive.

2) They felt they did not function as well either premenstrually or menstrually.

3) They disagreed with the idea that menstruation was important because it signaled a time for self-care.

4) They agreed that PMS was a good label for changes at the time of menstruation.

5) They felt that loss of emotional control was one of the most negative aspects of menstruation.

The agreement with the statements on body image are revealing in this group. It points to more of an acceptance of traditional societal values towards women in that the fault lies within the body of the woman. Society requires women to look and act a certain way at all times and when there is a deviation from this, either physically or behaviourally, the woman herself feels at fault (Jarvis and McCabe, 1991). Therefore, anger, discontent, dissatisfaction are more inwardly directed. Rather than questioning traditional values about a woman's place in society, the woman tends to focus the blame on herself.

Group A also mentioned that they did not function as well either premenstrually or menstrually. The different experiential aspect of this group, experiencing severe emotional states, may have an effect on function, particularly if women feel that they are out of control. Their disagreement about menstruation being a time for self-care may also be a factor in the negative perception of their capabilities. If they do not feel that they need to take time for themselves, or to care for themselves more around the time of menstruation, women in

Group A may perceive their changes to be associated with decreased function. However, another factor might be crucial to this group: the luxury of taking time for themselves might not be a possibility for these women who appear to have more demands placed on them in terms of marriage and family commitments and caring for children (more women were married with children in Group A).

If the extremely positive group is contrasted with Group A, the difference in self-awareness is pronounced. The emphasis on identity among the extremely positive women, on using this time for self-care, for reflection, and for being more in touch with their bodies, may be important for a different appreciation of their capabilities and responsibilities. The extremely positive women treat themselves differently whereas the women in Group A do not feel the need to do this; perhaps they are not able to take more time for themselves.

The Labelling Issue:

Labelling changes as PMS is a complex issue among the 43 women in the sample. As mentioned previously, some women accepted it without question, while others were most critical of the label.

PMS was considered to be a good label for some women as associating a name with particular symptoms gave it legitimacy. These changes were not solely in a woman's head if the medical establishment could identify it.

> **Aviva: "I'm glad things are coming out . . . and that people know that there is something here, it's not all in their head. It just makes me sick to think that someone would be told you're crazy or it's all in your head. It's not."**

The idea that PMS is something in a woman's head came out as well in conversation

about the inclusion of PMS in the Diagnostic and Statistic Manual of Mental Disorders (DSM). Some women were aware that it was in the DSM, although they were not always clear that it was in the appendix and not in the main body of the manual. The placement of PMS in the DSM (although it is referred to differently as Premenstrual Dysphoric Disorder) was not thought to be appropriate.

> **Sarah: "I think it's in the DSM-IV and it's just another way to say that women are crazy. Like what they're feeling it's not really there. They have to put a label on it."**

Inclusion in the DSM was a problem to one woman because, once in this manual, it could be utilized by doctors for a medical-psychiatric diagnosis which could be used against a woman in court, for example, if she was attempting to gain custody of her children. However, in terms of making PMS a legitimate area for research in terms of getting more funding, it was probably helpful. She did worry though about the medicalization of the changes women experience around their periods and this association was a concern for other women as well.

> **Paula: " In some ways, I guess it (PMS) is descriptive cause it's premenstrual, but I'm not sure the labelling it as a syndrome does anyone any favours. Syndrome is such a vague term . . . and it makes it so medical as if this is a disease and must be conquered or whatever . . . I don't think the medical model is the best method of approaching what is a normal part of everyday life."**

> **Amanda: " The syndrome, the illness, the equating with it (with) the disease model. That doesn't exist. I think that's a construction of medicine and something society buys into."**

The association of PMS as a mental disorder is an area of some confusion among the women in my sample. One woman stated that the label was a good thing because it was an easier way to talk about menstruation and this meant that PMS was not perceived as part of

your body.

> **Helen: " It's been removed . . . it's almost like it's not even a part of you . . . it's taken away . . . well, it's there, it's a syndrome, it's like depression or schizophrenia. So it's like not part of you . . . it's like it's a label, a disease, it's not really part of your body."**

This comment is a curious one: just where does PMS reside? According to the above quote it is not a part of your body, but it exists.

The legitimacy issue was a major one among women, especially those who experienced severe PMS. However, even with women who had severe PMS, it was examined critically.

> **Jody: " I think it places women in a terrible situation. I think it diminishes women. I think it demeans women. I think it makes us seem weak and not in control of our own lives. . . Let's eliminate the label."**

But contrast this with another woman who experienced bad PMS.

> **Katrina: " We do need a name for it, particularly in terms of the medical establishment. If it doesn't have a name then it doesn't exist as far as they are concerned. No problem with the term syndrome, it legitimizes it and gives it validation and means that it is not just in somebody's head."**

Among those who did not have PMS, the discourse was relatively critical and only three women acknowledged that PMS was a good label. However, the women who discussed the label critically were more disparaging towards societal values and were not overly critical of the women who accepted the label. One woman referred to PMS as a social construct because the use of syndrome implied that the condition was disease-oriented. She noted that changes did occur but that premenstrual changes might be a better way of describing the changes. Another woman referred to the labelling as brainwashing, that women were taught to think of the blood as disgusting and to pretend that the flow was not

happening.

Women without PMS also noted that PMS was sometimes used for behaviour which was not acceptable to others, for example, if a woman was in a bad mood or if she was angry, her behaviour was often placed within the label as an easy way to explain it.

> **Claudia: "If somebody's in a bad mood on a particular day people will say, oh, they must have PMS. And that doesn't make sense."**

The lack of respect for PMS even though it had been identified as real was also mentioned. Women have been targeted because of PMS and this association has not been a positive one. Changes that women experience do not have to be taken seriously. Some of this disrespect comes from the ease of referring to any menstrual change as PMS and to the excessive joking about it.

> **Amy: "I have to wonder about all the jokes about PMS. If you're in a little bit of pain or missing class, oh, she's got her period. That's kind of frustrating . . . people are saying, like if someone is bitchy toward them, oh, she's got PMS . . . I think there should be a little more common knowledge that it is an actual thing, it's not to be used as an excuse."**

The discourse on the labelling of PMS indicated that women were quite concerned about the implications of medicalizing changes which were associated with menstruation. Many women were somewhat critical of the label and they did not accept it indiscriminately. However, PMS has found its way into popular culture and discourse and if women's magazines are used as an example of this recognition, it appears to be unconditionally accepted.

Health and Sickness Conceptualizations

A major topic within medical anthropology is the focus on health, illness and

sickness designations. The statement could be made that because women accept the PMS label they identify it as an illness. This rather simple association was considerably more complex than at first thought. There was also no evidence to support the idea that women think of menstruation in terms of illness, although the medicalization of women's health in areas such as childbirth, menopause and menstruation itself (PMS) has become increasingly prevalent among the medical community.

One of the questions on my interview schedule was the following: "What do you think of this statement: menstruation is an illness?" This query invoked responses which indicated that the question was viewed almost as if it was a challenge or an affront to the recipient. The overall tone of the interview seemed to be affected by this question so after some exposure to different subjects, it was omitted from the interview. I realized that the information sought via this question could be gleaned from the responses to other questions. The question also illustrated the preoccupation of medical anthropology with the way in which a person defines illness or the emphasis placed on illness and sickness definitions. This focus may not necessarily be a part of the subjects' reality. Nevertheless, understanding definitional issues are a major part of the theoretical content of this field.

A sickness definition that takes into account more consideration of the subject's reality was proposed by Hahn in 1995:

> . . . sicknesses are unwanted conditions of self,
> or substantial threats of unwanted conditions
> of self . . . unwantedness comes in degrees,
> and individuals may have different thresholds
> regarding just how seriously unwanted a
> condition must be in order to qualify as a sickness.
> (p. 22)

According to Hahn, sicknesses are unwanted conditions of self and if a condition or change is valued or wanted this distinction affects the conceptualization of sickness. To illustrate this idea, the views of the extremely positive group of women will be used as an example. These women felt menstruation to be a major part of their identity so this association becomes an important component in transforming the process from an unwanted to a wanted condition. There are more factors in this transformation: they become more aware of the needs of the body and what they have to do to accommodate those needs. They also appear to be more accepting of self or are at least able to see through cultural stereotypes and define womanhood for themselves.

The changes that occur within this group of women are conceptualized differently in that they are viewed as positive, as necessary, as valued states important to experience. A comprehensive system of self-care becomes a fundamental component in dealing with these changes. They need to take time to look after themselves, they may do special things for themselves, they may write, they may read more, they may sequester themselves and they may reflect on their lives. They come to value the changes they go through and look forward to them.

The development of more positive self-images is a feature of what feminists refer to as "the struggle to reclaim the female body" (Stoppard, 1992: 128). The extremely positive women are reorganizing the boundaries placed on women in terms of societal values and they are redefining womanhood in their own terms. Valuing menstruation, making it a fundamental component in their lives, is part of this reclaiming of the body. In addition, Stoppard comments:

> Also needed are new ways of naming women's experiences in relation to menstruation that are free of the negative connotations of PMS. According to Laws (1985: 45), an important part of this process of "collective self-discovery" is that all women, not just those for whom cyclical changes are problematic, need to discuss PMS as a political construct. Women need to understand how PMS functions ideologically to justify sexist beliefs (and the practices that stem from them) which masquerade as scientific knowledge about women.
>
> (P. 127)

"Reclaiming the female body" appears to be an integral part of the extremely positive attitudes exhibited by this group. This transformation also involves reclaiming words which have been used in a certain way within society. Seven of the 10 women felt that menstruation was a time to move into that inner space, the feminine. Femininity is a word that is loaded with different meanings and depending on the definition, it can mean contradictory things to different people. Femininity can stand as an accepted traditional stereotype for women, that of the helpless, self-effacing female, weak, passive and wearing pretty dresses. Many of the women in the study thought of femininity as representing this superficial aspect.

Berg and Block Coutts (1994) suggest that menstruation is associated with the concept of tainted femininity because it is viewed as a "femininity-detracting event". Dealing with the flow of blood every month does not correspond well to the idea of femininity: a feminine woman as she is portrayed traditionally should not have to deal with blood, mess and bodily functions. This suggestion is a plausible one and a possible reason why some women have a hard time accepting this natural process.

Yet the meaning of femininity as an inner state or quality was one mentioned by

some of the women in the extremely positive group and this description had nothing to do with the superficial meaning of feminine.

> **Marg: "You know it's funny. Probably 10 years ago I would have reacted to that and said, well, yeah, it's a way of making sure that women are seen as less powerful and it's a negative thing. And now I embrace it because I really am different and I really like my femininity . . . and it's positive and it's powerful and it's good and I like being feminine. And feminine to me doesn't mean that I can't pick up a hammer, tote those bales or whatever. My feminine strength is about my strength as a woman."**

This reframing indicates that the concept of femininity for the extremely positive women has been transformed into something else; it becomes a reference to an inner strength, a valued quality.

Transformation may also be involved in the belief that menstruation is important as a means of cleansing the body. Nine out of 10 women in the extremely positive group believed in the cleansing properties of menstruation, although the majority of women in the entire sample accepted this idea as well. However, cleansing in conjunction with other conceptualizations of the female body were key elements contributing to the highly positive attitude of the extremely positive group; these basic characteristics included identity issues and an increased awareness of the body and self-care aspects, attributes that become synonymous with menstruation.

The idea of menstruating every month and cleansing your system at the same time is an unusual linkage. During the interviews, women did not always mention it as a cleansing mechanism, but in response to the consensus statement on cleansing, 31 out of 43 women were in agreement with it. Some women were adamant about the cleansing aspect.

Emily: " It feels like a cleansing in some ways. It just implies that if your cycle is regular, you know, a regular cycle it gives a message of being in good health."

Jane: " I've heard this theory that the idea of menstruation is that when women have sex with men, men introduce bacteria or different organisms that might not be healthy to women and so shedding is a way for them to clean out their systems."

Aset: "It reaffirms the fact that I'm a woman. I mean, you're cleansing a part of your body and that can never be a bad thing."

Another explanation is possible in relation to cleansing: women may simply mean that menstruation must occur so the reproductive process can begin again, although cleansing is an unusual word to use to refer to it.

Pat: "And it is just, to me, almost like a cleaning of your system to get prepared to start over again for again another possibility of the eggs being fertilized."

Jean: "I guess it decays . . . there will be a blood flow and various debris from inside . . . it's a very healthy thing. It's your body cleaning itself out and getting ready for the next cycle."

Some comments should be made comparing the information the women in my sample provided in comparison to that collected by Emily Martin (1987) in her American study of menstruation based on a sample of working and middle class women in Baltimore. Martin reported that middle class women in her sample tended to adopt the medical view of menstruation or, as she referred to it, the dominant medical model of failed reproduction rather than the more experientially-based explanation that working class women used. To Martin, working class women were more resistant to the dominant medical discourse and she states that resistance was a strategy used in terms of working class women to deal with their feelings about menstruation.

My comparison will involve her overall conclusions as the two studies are different

in a number of aspects, although both use a methodology based on self selection (women volunteering for interviews). However, Martin interviewed a larger number of women, 165 in total, and her study was oriented around differences in class. In Martin's study, distinctions were made between working class and middle class based on membership in traditional neighbourhoods within Baltimore and on an individual's job classification. Middle class individuals had access to jobs with a more secure resource base while working class women had positions where there was less control and autonomy (based on Rapp, 1982).

The class division was problematic in my study as many of the women were students with a very low income and no job description. Class division is also a concept that is under considerable change in our society. However, education has been used as a marker for class; women who possess university or college educations have been placed within a middle class designation (this criterion was used in a study on motherhood by McMahon, 1995). In my sample almost 77 per cent had some education beyond high school, either university, community college or certificate courses of some kind. If we accept this criterion as a marker for class, how do the middle class women in my study compare to Martin's sample?

In terms of my analysis, the majority of women in my sample appeared to reject the medical model of menstruation as failed reproduction. This assessment was based on their discourse on the way in which the medical community dealt with menstruation and PMS, their explanations of menstruation and also on their belief in the cleansing aspect of menstruation. The association with cleansing may be a way of dealing with the overall societal perception of menstruation as negative and it may be a way of transforming this

negativity into a positive. The rejection of negativity towards menstruation could be referred to as resistance, although transformation may be more apropos. Whether this resistance or transformation is based on class is impossible to conclude from my results, although I would suspect that it crosscuts class divisions with education being a significant factor in the deconstruction of the medical model. Nevertheless, it should be emphasized that Emily Martin's study was an important step in the validation of menstrual cycle research.

Emotions and Biology:

There was overwhelming agreement among women that emotions were affected by female hormones (39 women out of 43). As for heightened emotions being part of the menstrual experience, 34 out of 43 women agreed with this statement.

The emotional aspect is an interesting one to explore. The idea was expressed by some women in my study, that being a woman allowed them to be more emotional and it appeared to be viewed in a positive way.

> **Jody: "Being a woman means I have the freedom to express my emotions."**
>
> **Sally: "And there's a certain freedom in being female or being a woman because they have set it up, in some areas, that you can get away with more . . . And while sometimes that holds us back - you're just being a woman or you're just being hormonal . . . you have more leeway to be whatever you want at the moment."**

The association of emotional states with female biology is a connection commonly made in our culture. According to some researchers, PMS itself is rooted in ancient Greek descriptions of hysteria which revolve around a condition known as the wandering uterus (Rodin, 1992; Dean-Jones, 1994).

The wandering uterus, a concept prevalent in early Greek society, was a female condition in which the uterus moved within the woman's body. At various times it could be found in the lungs, the heart and the brain, in fact, it could wander anywhere in the body due to veins which allowed the blood to collect in the uterus. This wandering caused great anxiety in the female, as might be expected, because a woman never knew where this organ might be found on any given day. When the uterus moved, the woman became extremely agitated or emotional, sometimes, she became mad. The wandering uterus became synonymous with female irrationality and high degree of emotional instability. It led to a disorder the Greeks named hysteria (Veith, 1965).

The emotional instability of women due to this particular condition was viewed as linked to their overall constitution as they possessed a uterus while men did not. The uterus wandered because it was not anchored in place by pregnancy or kept moist by intercourse. It moved in search of moisture. Therefore, in order to prevent this disorder, a woman should be married, and have regular intercourse which would ensure that pregnancy took place. In other words, engage in behaviour which was socially acceptable and everything would be all right. The point was made by a woman in the study that PMS was another way to label emotions which are not considered appropriate for women to display, anger, for example (also see Martin, 1987).

The treatment for the wandering uterus, that marriage and pregnancy would prevent this severe disorder, is remarkably similar to advice received by some of the women in my study for PMS symptoms. They related incidents where their medical practitioner had told them or women they knew that having a child would ease their PMS.

Tracey: "When I was younger, sixteenish, I went to a female doctor and she told me to get pregnant and that would make it (PMS) go away . . . she said, get married to a good guy and have lots of kids and the pain will go away. And I went, uh huh, okay, goodbye."

Dominique: " And my sister . . . had a lot of discomfort too. You know what the doctor told her . . . because she had a history with this (PMS). He said, have a baby and it will be all right. Like, I mean, that's the way he dealt with it. So she had four kids. And it was never all right, it got worse . . . I don't understand that thinking, you know . . . Yeah, like why. Because your uterus didn't get any practice or something."

As mentioned previously, women disagreed with this consensus statement: "When a woman has a child, I think the severity of her PMS will decrease". Women were critical of this type of information dispensed by doctors, although it was raised in a number of interviews, primarily because it had not worked in their own situations or for women they knew who had been given this information. Yet, there was an overwhelming consensus on the association between emotions and female hormones.

Emotional volatility is considered to be a female attribute, whereas men are thought to be devoid of emotions, except in the area of anger and aggression, so-called male attributes. "Wombs, menstruation and hormones 'predict' emotion ' (Lutz, 1990: 79). Lutz comments that this line of reasoning arises out of a cultural model in which women are viewed as more emotional because of their biological processes.

Many women in the sample stated that they experienced emotional upheavals around the time of their period. They experienced mood swings, irrationality, sadness, anger and were considerably more sensitive usually in the week prior to their period. Most found this to be a problem. A few women who were more emotional at this time welcomed the feelings and they stated that the increase in emotional states should not be viewed as a problem.

Jane: "I also get pretty emotional, like I'm pretty emotional to begin with, but a little more moody, a little more in touch, like things are more present . . . I feel pretty good about that now, but I didn't always so I would be like denying the fact that it was different or scorning (it) . . . (it's like) you're just another mere woman who's being over emotional. Like maybe I'm extra intuitive, right . . . I feel like I'm extra perceptive and I'm not snowed so easily and that's why things affect me more."

More research needs to be done on the fundamental issue of the link between emotions and hormones. Investigating women's emotions at various times throughout their cycle, not only premenstrually, would be an interesting project coupled with the study of male emotions. Alison Jaggar (1996: 178) comments:

> Women appear to be more emotional than men because they . . . are permitted and even required to express emotion more openly. In contemporary western culture emotionally inexpressive women are suspect as not being real women whereas men who express their emotions freely are suspected of being homosexual or in some other way deviant from the masculine ideal.

It would also be interesting to study women who do not believe that emotions are tied to female hormones. What contributes to the difference in their knowledge and understanding of emotional fluctuations associated with menstruation?

Qualitative Research - General Comments

The use of an intensive open-ended questionnaire proved to be a useful methodology in the exploration of menstrual knowledge and understanding among a group of volunteer women in Manitoba. Consensus analysis served in a complimentary fashion to the intensive interviews as selected statements from the interview sessions formed the basis for the consensus questionnaires used in the study. These statements reflected commonalities and

differences among women in the sample, but all of the statements were derived from the sample itself. In terms of verification, it was a simple exercise to check if the person responsible for the original statement actually agreed with it on the consensus form. In most cases, the results were similar; the women who made the statements agreed with them. In a few cases, women actually disagreed with their statements.

Participation in the study was voluntary so the time frame for the data collection depended on the response of women to notices placed in different locations around the city. A period of ten months was necessary to obtain the sample of 43 women. In order to compile the consensus forms, statements had to be identified in the transcripts and only a selection of statements could be used. Prior to administering the consensus forms to the sample, a test had to be conducted which led to a further refining of the questionnaires. Some of this work was done during the initial data collection so it was possible to compile the consensus forms within a month of the completion of the interviews.

By this time almost a year had passed from the beginning of the interviews. Contact was made with all the women in the sample, which in itself was an enormous project, and the consensus forms were completed by the end of three months. The time difference between the interviews and the consensus forms in some cases was as much as a year. The time element may explain some of the difference in the women's statements, but it is also important to consider the interview process itself as another reason for conflicting results between the interviews and consensus statements.

The actual process of interviewing women about their menstrual experiences introduces an element that may be responsible for a change of opinion or attitude. The mere

act of questioning an individual can provide a mechanism for change as the individual may begin to question or think more critically about various aspects of the material they are being queried about. No matter how unbiased the questioning, the possibility exists that familiarity with the topic may sensitize the individual being interviewed. Opinions and attitudes are constantly changing.

Two examples will be presented where this discrepancy was noted. A woman disagreed with this statement: "When I experience PMS I don't feel like I'm normal, either physically or mentally." While she disagreed with her original statement, there was consensus on this statement in PMS Group A, the group to which the woman herself belonged. Upon reflection, the statement may have been too dramatic for the woman to accept or possibly her PMS experiences were beginning to be framed differently.

On the general form, a woman disagreed with her original statement: "Around the time of menstruation, I feel like I'm less attractive." This was a statement on which there was a lack of consensus on the exploratory form indicating that it is an area undergoing considerable societal change. Ideas about female body image could be in a state of flux for this woman.

The issue of change over the course of a project should not be downplayed, although it did not appear to pose any significant problems in this study. However, it is clear that even in the most well-designed research project, whether it is based on a qualitative or quantitative methodology, some effect will be felt among the participants. The process is not a neutral one.

It was important to make the interview session as comfortable as possible for the

participants, although those who requested interviews in their own homes probably felt more secure. Many women were interviewed in my office at the university and anyone who is familiar with a graduate student's office knows that these rooms are usually small, windowless, lacking good ventilation and devoid of comfortable furniture. Nevertheless, the attempt was made to put the women at ease and to conduct the interviews like friendly conversations. No matter how much effort is expended in this area, an interview is still an artificial situation. The possibility always exists that some information is exchanged out of a desire to please the interviewer. However, the consensus forms tallied well with the interview data and I felt that women responded to my questions in a forthright and honest manner. In many cases, the depth of thought on certain issues and the eloquence with which certain ideas were expressed was impressive.

All things considered, an enormous amount of information was derived from the research project and the interview process was one I enjoyed tremendously. I owe a great debt to all those women who volunteered to be interviewed and who provided such interesting material for my analysis.

Chapter 7

Conclusion

The goal of my research was to determine the meaning of menstruation and premenstrual syndrome in women's lives and to understand their attitudes toward the menstrual cycle; their conceptualizations of PMS; and the way in which PMS affected their day to day lives. Many topics were covered in this study and a considerable amount of information was generated in the interviews.

Briefly, women in the study considered menstruation to be a normal, natural process and they thought that the monthly bleeding signified health. This health component also included the view that menstruation was important as a cleansing process. Womanhood issues were also meaningful: menstruation was considered a bond shared among women and motherhood was a key part of being a woman, although not all women in the study wanted to have children. There was also disagreement on whether menstruation was an essential part of a woman's identity.

The connection of emotions and female hormones was a pivotal issue. This link was surprising as I thought this traditional belief would have been less acceptable to women today. Women did not reject this understanding and some women felt that the emotional component associated with women should not be viewed negatively as the expression of emotions was a positive element of being female. Further study of the emotions in connection with the menstrual cycle and the belief that emotions are part of a female's constitution is needed in order to understand this fundamental issue.

Menstruation was considered an inconvenience by most women, although not a

major one as it did not interfere with most women's lives. Women acknowledged that menstruation should be viewed positively and most women in the study could be categorized as slightly positive in attitude. A subgroup of 10 extremely positive women was identified through consensus analysis, a relatively high number in terms of the total sample of 43 women.

The extremely positive group felt that menstruation was an important part of their identity as women and the cycle was very connected to their sense of self and to the meaning of being a woman, although they had mixed views on the importance of motherhood itself. Key components included the association of menstruation and attributes such as a time for reflection, more awareness of their bodies and increased self-care. This group appeared to be actively redefining womanhood in terms of different societal and cultural values; in other words, they were "reclaiming the body". Attitudes toward menstruation are embedded in a very complex way within a social and cultural framework, and the attitudes of the extremely positive group point to the fact that negative perceptions can be transformed into positive ones due to a different conceptualization of the female body. While the process of transformation this group employed may not be the strategy all women wish to follow, it demonstrates that attitudes can only change with a concerted effort on the part of women to redefine menstruation for themselves.

Feminism may be another way to accomplish this repositioning and the majority of women in the study felt that feminism had been important in providing women with a more positive outlook on menstruation.

It was also clear in the study that PMS was an accepted way to characterize

premenstrual and menstrual changes, although not all women placed their changes within the label. Also, women who experienced PMS did not frame the disorder in the same way. Through the use of consensus analysis, two different PMS groups were identified; one group experienced emotional changes, the other physical changes. The emotional group reported depression to be a major negative factor, in addition to feelings of loss of control and dissatisfaction with self. The physical group did not experience these severe emotional upheavals; to these women, somatic changes were the most problematic. This result suggests that more study should be conducted on the emotional component of PMS as the division between women in terms of emotional and physical symptoms has been noted previously in PMS research. PMS appears to be manifesting itself quite differently in the two groups and a question must be asked: Is the PMS label applicable to both these groups?

I had thought at the start of the project that any difference between women would revolve around their PMS experience, that a difference would exist between those women with PMS and women who did not experience it. This was not the case and while non PMS women tended to be more critical of the label, they were, for the most part, accepting of the entity known as PMS. There were two main differences between the non PMS group and the women who experienced PMS: (1) the changes they experienced were considered in a more natural way as necessary changes associated with their menstrual cycle; and (2) the changes they reported were not as severe as those of the PMS group; their experiences were more physically-oriented with fewer emotional upheavals.

The term premenstrual syndrome is almost never used as such; it is better known by its acronym PMS which has become synonymous with any type of change related to the

menstrual cycle, although it is most commonly associated with episodes of anger, irritability, "bitchiness" and moodiness. Ever since the label was coined in 1953, a wide variety of changes have been associated with PMS. Changes listed as symptoms of the disorder at that time ranged from depression to rhinorrhea (thin, watery discharge from the nose). The stage was set for a disorder encompassing almost every change that occurred in association with the premenstrual and menstrual phases of the cycle. These changes differed in terms of intensity, impact on the individual and in whether they exhibited more of an emotional or physical orientation.

PMS as a cultural symbol has come to represent a woman's normal functioning, part of "being a woman", and statements referring to PMS as a common female affliction which has persisted for over 2,000 years abound in popular literature describing the condition. PMS has become a well-known entity discussed frequently in popular women's magazines, daily newspapers, self-help books and on television and radio. The fact that PMS means different things to different people has not had any impact on the widespread use of the term.

The intent of my study was not to critique premenstrual syndrome as a label to describe changes prior to menstruation, but to understand the reason women choose to place this label on changes associated with the menstrual cycle. Nevertheless, the information collected over the course of this research project points to a major problem in the use of the label.

Among the women in the study there was an acknowledgement that PMS was a term that represented a wide variety of changes occurring prior to and during the period. Most women were able to state definitively whether or not they experienced PMS, although some

were unclear about whether their changes could be placed within this label as they did not find the changes incapacitating. The majority of women felt that it described a real entity, even those women who did not experience it themselves.

The label was subject to intense scrutiny by some women in terms of the legitimacy of the term to define changes associated with menstruation. They stated that while it validated women's experiences, it also had a negative component in that it was used indiscriminately to refer to behaviour which was considered inappropriate, in particular, anger and irritability. Syndrome was thought to be problematic as this term medicalized the changes and the disorder tended to be designated as an illness. Also, the inclusion of PMDD in the DSM was not considered appropriate by the majority of women who were aware of its categorization as a psychiatric disorder. Most women agreed that changes rather than syndrome should be used to refer to women's menstrual experiences.

Referring to changes rather than syndrome may be a necessary first step in the reevaluation of PMS as many women have mentioned that the label is loaded with contradictory meanings. This does not mean that some women do not experience severe premenstrual and menstrual changes which interfere with the way they function day to day. Many studies have documented the occurrence of these changes. However, it is the experience of mild to moderate changes which are viewed negatively and labelled as PMS which is important to explore critically.

One of the women in my study made the statement that simply referring to PMS differently would not change attitudes. While this statement may be true in the short term, long term implications are much more favourable, particularly if women begin to think of

the changes occurring around the time of menstruation as necessary and valued changes. This means that women must take an active role in redefining what menstruation means to them in order to alter widespread negative attitudes toward menstruation and PMS.

The results of this study point to a number of areas in which future research is needed. Since attitudes towards menstruation are subject to social and cultural influences, research into male attitudes would be interesting to pursue. One such study has already been conducted in England by Laws (1990). A consensus questionnaire in conjunction with intensive interviews could provide results for a comparison with the women in this study. Also, revision of the consensus questionnaire and its administration to a sample of women who were not as well educated as the women in my study would be an interesting approach.

Research into the emotional component of PMS and more study of the link between emotions and the female constitution has already been referred to as a needed area of study. The role of depression in PMS, as part of that emotional component, is also a subject of considerable debate and should be investigated more thoroughly.

APPENDIX A

A Selection of PMS Symptoms

depression
anxiety
confusion
lethargy
aggression
crying bouts
drowsiness
fatigue
food craving
hopelessness
impulsive behaviour
insomnia
listlessness
loss of concentration
loss of confidence
loss of judgment
loss of self control
mood swings
sadness
tension
violence
hostility
guilt feelings
tearfulness
irritability
breast swelling
breast pain
water retention
headache
cramps
clumsiness
diminished performance
dizziness
epilepsy
finger swelling
flushes
muscle pain
nausea
poor coordination
sweating
weakness
nymphomania
unhappiness
dissatisfaction
accidents
anger
impatience
pessimism

APPENDIX B

Research Criteria for Premenstrual Dysphoric Disorder

A. In most menstrual cycles during the past year, five (or more) of the following symptoms were present for most of the time during the last week of the luteal phase, began to remit within a few days after onset of the follicular phase and were absent in the week postmenses, with at least one of the symptoms being either (1), (2), (3) or (4):

(1) markedly depressed mood, feelings of hopelessness, or self-deprecating thoughts
(2) marked anxiety, tension, feelings of being "keyed up" or "on edge"
(3) marked affective lability (e.g., feeling suddenly sad or tearful or increased sensitivity to rejection)
(4) persistent and marked anger or irritability or increased interpersonal conflicts
(5) decreased interest in usual activities (e.g., work, school, friends, hobbies)
(6) subjective sense of difficulty in concentrating
(7) lethargy, easy fatigability, or marked lack of energy
(8) marked change in appetite, overeating, or specific food cravings
(9) hypersomnia or insomnia
(10) a subjective sense of being overwhelmed or out of control
(11) other physical symptoms, such as breast tenderness or swelling, headaches, joint or muscle pain, a sensation of "bloating", or weight gain

Note: In menstruating females, the luteal phase corresponds to the period between ovulation and the onset of menses, and the follicular phase begins with the menses. In nonmenstruating females (e.g., those who have had a hysterectomy), the timing of luteal and follicular phases may require measurement of circulating reproductive hormones.

B. The disturbance markedly interferes with work or school or with usual social activities and relationships with others (e.g., avoidance of social activities, decreased productivity and efficiency at work or school).

C. The disturbance is not merely an exacerbation of the symptoms of another disorder, such as Major Depressive Disorder, Panic Disorder, Dysthymic Disorder, or a Personality Disorder (although it may be superimposed on any of these disorders).

D. Criteria A, B, and C must be confirmed by prospective daily ratings during at least two consecutive symptomatic cycles. (The diagnosis may be made provisionally prior to this confirmation.)

Diagnostic and Statistical Manual of Mental Disorders, 4th edition. (1994: 717-718)

Appendix C

Interview Questions

Questions on Menstruation

1. What do you think of when you hear the word menstruation? List anything that comes to mind.

2. What is your first recollection of menstruation? Do you remember what your reaction was? At what age did you experience your first bleeding?

3. On a scale of 1 to 10 (1=negative; 10=positive), which number best represents your feelings about your first menstruation?

4. How was menstruation dealt with by your family at that time? By your friends, both female and male? By the educational system?

5. Describe how you feel about menstruation at this time in your life.

6. Have your feelings changed since you were a teenager? If yes, in what way?

7. Do you experience anything different at the time of menstruation?

   Do you feel differently about yourself during menstruation?

8. How would you explain menstruation to another person?

9. How is the subject of menstruation dealt with today by family and friends?

10. Are there any restrictions (taboos) associated with menstruation? Do you avoid any activities? Do you do anything differently during that time? Were you ever told what to do or what not to do during menstruation? By whom?

11. If you could stop menstruating, would you?

12. How do you feel about childbearing? Menopause?

13. Please list some positive and negative aspects of menstruation.

14. On a scale of 1 to 10 (1=negative; 10=positive), which number best represents your feelings about menstruation at this time?

15. What terms do you use to refer to menstruation?

16. Have you consulted any sources of information on menstruation?

17. What do you use for your menstrual flow? How do you feel about tampon and sanitary pad advertising?

18. What do the following terms or phrases mean to you: femininity; being a woman; the female role or roles; (include anything that comes to mind).
Femininity:
Being a woman:
Female roles:
Feminism:

What do you think of the statement: "Menstruation is an affirmation of femininity"?

19. What do you think the prevailing attitude is to menstruation in our society?

20. I have one final question on menstruation: Have you heard of premenstrual syndrome?

Questions on PMS

1. Do you personally have experience with Premenstrual Syndrome or PMS?

If the answer is Yes, go on with these questions. If the answer is No, go to the next section.

2. What is the first thing you think of when you hear premenstrual syndrome mentioned?

3. Can you give me a definition of PMS?

4. What changes do you experience? What do you consider to be your three worst changes?

5. When do these changes occur? Do all of the changes recur every cycle? When do the changes cease?

6. How do you deal with these changes? What effect do these changes have on your life? Which changes have the most effect on your life: emotional or physical

complaints?

7. What are the positive and negative aspects of your experience with PMS?

8. Do you feel differently about yourself in the week before your period?

9. What do you think PMS is caused by?

10. What treatments are available for PMS? What treatments do you use for PMS?

11. Do you think PMS is a good term to use to describe changes prior to menstruation? Are there any problems with its use?

12. Who diagnosed PMS for you? When did you first notice PMS?

13. Where does your information on PMS come from?

14. Do you know other women who experience PMS? What are their symptoms?

15. How does your family relate to your PMS?

16. Have you visited the doctor in the past year for PMS? How often?

17. On a scale of 1 to 10 (1=mild; 10=severe), what number best represents the severity of your PMS in terms of its impact on your life?

18. Any additional comments on menstruation or PMS?

Questions on PMS: for those who do not experience it

1. Do you experience any changes in the week before your period? Would you consider them to be positive or negative or both?

2. How do you deal with these changes? Treatments?

3. Have you visited a doctor in the past year for these changes? How often?

4. Back to PMS: What is the first thing you think of when you hear premenstrual syndrome mentioned?

5. Can you give me a definition of PMS?

6. Have you heard of any complaints associated with PMS?

7. Do you have any idea as to the cause of PMS?

8. Why do you think you do not experience it?

9. Are you aware of any treatments for PMS?

10. Where does your information on PMS come from?

11. Do you know any women who experience PMS? Symptoms?

12. Additional comments on menstruation or PMS?

Individual Profile

1.Name:_____

2.Date of Birth:_____ 3.Occupation:_____

4.Full-time: _____
Part-time: _____

5.Education: _____ 6.Religion: _____

Grade 8 or less: _____
High School: _____
University Degree: _____
Graduate Degree: _____
Other: _____

7.Marital Status: single: _____ 8.No. of children:_____
married: _____
divorced: _____
living w/ partner: ___
other: _____

9.How many individuals live in your household?_____

10.Where were you born?:_____

11.Where was your mother born? _____

12.Where was your father born? _____

13.For Aboriginal Women: In what setting were you raised? Reserve_____

Town_____ City_____ or Rural (other than reserve) _____

14.If you were born in another country, how long have you been in Canada?_____

15.What languages do you speak? _____

16.What activities do you take part in? _____

_____

17.What sports do you participate in? _____

_____

18.How often? once/month_____ once/week____ three times or more/week_____

19.What is your state of health? _____

_____

_____

20.How many times have you visited a doctor in the past year?_____

21.For what reasons?_____

22.Are you currently using any method of birth control?_____

23.What method is being used? _____

24.What other medications are you taking?_____

25.Do you currently experience any specific medical problems? _____

_____

26.Do you consider yourself to be under any type of stress (financial, work, family, social, medical)?

_____

_____

27.Annual family income:

less than $10,000:	_____
$10,000 - $20,000:	_____
$21,000 - $30,000:	_____
$31,000 - $40,000:	_____
$41,000 - $50,000:	_____
$51,000 - $60,000:	_____
$61,000 - $70,000:	_____
$71,000 - $100,000:	_____
above $100,000:	_____

28. What is your address? _____

_____

_____ 29. Telephone #: _____

APPENDIX D

VOLUNTEERS REQUESTED FOR STUDY ON MENSTRUATION

Women who would be willing to discuss their experiences of menstruation are requested to serve as volunteers for a project on women's Views of menstruation and premenstrual change. The study will form the basis of research for my doctorate in medical anthropology.

The interview will take approximately 2 hours. I will conduct it at your convenience and discuss the nature of the project fully with you.

I would appreciate it very much if you decide to relate your experiences to me. Women's views of menstruation and premenstrual change are of the utmost importance in developing a more comprehensive understanding of menstrual cycle variations.

If you are a woman 18 years of age or older, who would be willing to discuss your experiences of menstruation, please contact me at the following telephone number in Winnipeg:
or by e-mail:

Thank you
Shirley Lee

APPENDIX E

Consent Form

The purpose of this research project is to compile information on the menstrual knowledge and understanding of women in Manitoba, in addition to specific information on premenstrual syndrome. A primary focus of the research is to ascertain whether there is any difference in menstrual knowledge and attitudes between women who experience PMS and those who do not.

Participation is voluntary and withdrawal from the project may occur at any time. All volunteers will be requested to complete an individual profile listing information on age, ethnicity, occupation, health status and other questions of this nature. All names and personal information will be strictly confidential. However, if a participant tells me of an illegal activity, I may not be able to maintain confidentiality.

The initial group of subjects will be asked to answer an open-ended interview schedule on menstrual and premenstrual experiences and to complete a questionnaire on menstrual attitudes. The interviews will be audiotaped, subject to the participant's agreement. The time involved will be approximately two hours. This group will also be requested at a later date to complete a questionnaire based on statements derived from the interviews. This task will take about one hour.

I, _____, agree to participate in a study on menstruation and premenstrual syndrome.

I have discussed the project in detail with the researcher, Shirley Lee, a graduate student with the Department of Anthropology, University of Manitoba.

I understand that I have the right to withdraw from this project at any time.

I understand that I have the right to refuse to answer any questions with which I feel uncomfortable.

My name will be kept confidential.

I will be informed about the release and publication of information generated by this project.

Signature of Participant:_____ Date:_____

Signature of Interviewer:_____

APPENDIX F

The Menstrual Attitude Questionnaire for Adult Females

On the line next to each statement, please write the number from the following scale, which best approximates how much you disagree or agree with the statement.

1	2	3	4	5	6	7
disagree strongly			neither disagree nor agree			agree strongly

1.A woman's performance in sports is not affected negatively by menstruation. _____

2. I feel as fit during menstruation as I do during any other time of the month. _____

3. Menstruation is something I just have to put up with. _____

4. The recurrent monthly flow of menstruation is an external indication of a woman's general good health. _____

5. Most women show a weight gain just before or during menstruation. _____

6. Cramps are bothersome only if one pays attention to them. _____

7. Women are more tired than usual when they are menstruating. _____

8. Women just have to accept the fact that they may not perform as well when they are menstruating. _____

9. Menstruation provides a way for me to keep in touch with my body. _____

10. Menstruation is a reoccurring affirmation of womanhood. _____

11. My own moods are not influenced in any major way by the phase of my menstrual cycle. _____

12. I barely notice the minor physiological effects of my menstrual periods. _____

13. I expect extra consideration from my friends when I am menstruating. _____

14.I realize I cannot expect as much of myself during menstruation compared to the rest of the month. _____

1	2	3	4	5	6	7
disagree strongly			neither disagree nor agree			agree strongly

15. In some ways, I enjoy my menstrual periods. _____

16.I can tell my period is approaching because of breast tenderness, backache, cramps, or other physical signs _____

17. Others should not be critical of a woman who is easily upset before or during her menstrual period. _____

18. The physiological effects of menstruation are normally no greater than other usual fluctuations in physical state. _____

19. I don't believe my menstrual period affects how well I do on intellectual tasks. _____

20. Men have a real advantage in not having the monthly interruption of a menstrual period. _____

21. Menstruation is an obvious example of the rhythmicity which pervades all of life. _____

22. I am more easily upset during my premenstrual or menstrual periods than at other times of the month. _____

23. A woman who attributes her irritability to her approaching menstrual period is neurotic. _____

24. I don't allow the fact that I'm menstruating to interfere with my usual activities. _____

25. I hope it will be possible some day to get a menstrual period over within a few minutes. _____

26. Menstruation allows women to be more aware of their bodies. _____

27. I have learned to anticipate my menstrual period by the mood changes which precede it. _____

1	2	3	4	5	6	7
disagree strongly			neither disagree nor agree			agree strongly

28. Women who complain of menstrual distress are just using that as an excuse. _____

29. Menstruation can adversely affect my performance in sports. _____

30. Avoiding certain activities during menstruation is often very wise. _____

31. The only thing menstruation is good for is to let me know I'm not pregnant. _____

32. Most women make too much of the minor physiological effects of menstruation. ____

33. Premenstrual tension/irritability is all in a woman's head. _____

Factor 1

1. A woman's performance in sports is not affected negatively by menstruation.
2. I feel as fit during menstruation as I do during any other time of the month.
7. Women are more tired than usual when they are menstruating.
8. Women just have to accept the fact that they may not perform as well when they are menstruating.
13. I expect extra consideration from my friends when I am menstruating.
14. I realize I cannot expect as much of myself during menstruation compared to the rest of the month.
18. The physiological effects of menstruation are normally no greater than other usual fluctuations in physical state.
19. I don't believe my menstrual period affects how well I do on intellectual tasks.
24. I don't allow the fact that I'm menstruating to interfere with my usual activities.
29. Menstruation can adversely affect my performance in sports.
30. Avoiding certain activities during menstruation is often very wise.

Factor 2

3. Menstruation is something I just have to put up with.
15. In some ways, I enjoy my menstrual periods.

20. Men have a real advantage in not having the monthly interruption of a menstrual period.

25. I hope it will be possible some day to get a menstrual period over within a few minutes.

31. The only thing menstruation is good for is to let me know I'm not pregnant.

Factor 3

4. The recurrent monthly flow of menstruation is an external indication of a woman's general good health.

9. Menstruation provides a way for me to keep in touch with my body.

10. Menstruation is a reoccurring affirmation of womanhood.

21. Menstruation is an obvious example of the rhythmicity which pervades all of life.

26. Menstruation allows women to be more aware of their bodies.

Factor 4

5. Most women show a weight gain just before or during menstruation.

11. My own moods are not influenced in any major way by the phase of my menstrual cycle.

16. I can tell my period is approaching because of breast tenderness, backache, cramps, or other physical signs.

22. I am more easily upset during my premenstrual or menstrual periods than at other times of the month.

27. I have learned to anticipate my menstrual period by the mood changes which precede it.

Factor 5

6. Cramps are bothersome only if one pays attention to them.

12. I barely notice the minor physiological effects of my menstrual periods.

17. Others should not be critical of a woman who is easily upset before or during her menstrual period.

23. A woman who attributes her irritability to her approaching menstrual period is neurotic.

28. Women who complain of menstrual distress are just using that as an excuse.

32. Most women make too much of the minor physiological effects of menstruation.

33. Premenstrual tension/irritability is all in a woman's head.

APPENDIX G

Sample Size Requirement Table

Proportion of Questions	Average Level of Cultural Competence .5	.6	.7	.8	.9
.90 Confidence Level					
.80	9	4	4	4	4
.85	11	6	4	4	4
.90	13	6	6	4	4
.95	17	10	10	8	4
.99	25	16	10	8	4
.95 Confidence Level					
.80	9	7	4	4	4
.85	11	7	4	4	4
.90	13	9	6	4	4
.95	17	11	6	6	4
.99	29	19	10	8	4
.99 Confidence Level					
.80	15	10	5	4	4
.85	15	10	7	5	4
.90	21	12	7	5	4
.95	23	14	9	7	4
.99	*	20	13	8	6
.999 Confidence Level					
.80	19	11	7	6	4
.85	21	13	8	6	4
.90	23	13	10	8	5
.95	29	17	10	8	5
.99	*	23	16	12	7

Note: *Well over 30 informants needed.
(Table from Romney, Weller & Batchelder, 1986: 326)

APPENDIX H

Consensus Questionnaire on Menstruation

Do you agree or disagree with the following statements? They are all based on responses from women interviewed within the past year. Please circle your answer.

1. Menstruation is a normal part of a woman's life.

   Agree Disagree

2. I think that the changes which occur around the time of menstruation are caused by normal fluctuations of menstrual cycle hormones.

   Agree Disagree

3. During menstruation I feel alive, vivacious and womanly.

   Agree Disagree

4. Premenstrual syndrome is a term to describe distressing changes which occur around the time of menstruation.

   Agree Disagree

5. Menstruation is an inconvenience

   Agree Disagree

6. Menstruation is important as a means of cleansing the body.

   Agree Disagree

7. Menstrual blood has an unpleasant odour.

   Agree Disagree

8. Menstruation has positive health benefits.

   Agree Disagree

9. Motherhood is a very important part of being a woman.

   Agree Disagree

10. I think that emotions are affected by female hormones.

    Agree Disagree

11. Sexual intercourse during menstruation is a normal experience.

    Agree Disagree

12. Heightened emotions prior to and during the period are part of the menstrual experience.

Agree Disagree

13. I would not voluntarily stop menstruating because it is part of my identity and part of being a woman.

Agree Disagree

14. Menstruation is not something I think much about.

Agree Disagree

15. I think the term premenstrual syndrome is sometimes used as a way to generally devalue a woman's point of view.

Agree Disagree

16. During menstruation I am more in touch with my body.

Agree Disagree

17. Premenstrual syndrome is a convenient label for men to use for something they don't understand.

Agree Disagree

18. It is important for me to pay more attention to my hygiene when I'm menstruating because I do not feel that I'm as clean at that time.

Agree Disagree

19. Menstruation is important because it is one part of a cyclical process.

Agree Disagree

20. I don't regard menstruation as particularly wonderful or particularly horrible.

Agree Disagree

21. Menstruation is a time when I can focus on personal issues.

Agree Disagree

22. I think that sometimes premenstrual syndrome is used as an excuse by a woman for behaviour which is socially unacceptable.

Agree Disagree

23. Menstruation is not a major part of a woman's identity.

Agree Disagree

24. A woman might be tired while menstruating because she is losing blood.
Agree Disagree

25. I think it is unhealthy to use tampons.
Agree Disagree

26. The expression of anger by a woman is sometimes identified as PMS.
Agree Disagree

27. The female hormone estrogen has positive health benefits.
Agree Disagree

28. I view menstruation as an inconvenience and an expense.
Agree Disagree

29. Labelling severe premenstrual change as a psychiatric disorder is just another way to say that women are crazy.
Agree Disagree

30. Menstruation is important because it is a bond I share with other women.
Agree Disagree

31. Around the time of menstruation, I feel more self-conscious about my body image.
Agree Disagree

32. I am aware of what is happening in my body and I am usually able to determine when ovulation is occurring.
Agree Disagree

33. When I think of menstruation generally, I think of a really bad experience.
Agree Disagree

34. Menstruation is a time to reflect upon circumstances in my life.
Agree Disagree

35. Around the time of menstruation, I feel like I'm less attractive.
Agree Disagree

36. Menstruation is a natural process, but at the same time, I don't like it very much.
Agree Disagree

37. I like the fact that I go through changes during the menstrual cycle.

Agree Disagree

38. One of the best things about menstruation is that it forces you to take a break from regular activities.

Agree Disagree

39. I think that exercise helps to alleviate some of the problems that women experience prior to and during menstruation.

Agree Disagree

40. When I'm bleeding I think that everything is functioning properly.

Agree Disagree

41. I look forward to menstruation.

Agree Disagree

42. In general, I think that the medical profession treats menstruation as if it was an illness.

Agree Disagree

43. It is important to avoid any discussion of menstruation in the workplace.

Agree Disagree

44. I love the experience of menstruation.

Agree Disagree

45. Feminism has helped to provide women with a more positive outlook on menstruation.

Agree Disagree

46. I function as well premenstrually as I do at other times.

Agree Disagree

47. When I am menstruating I am more aware of my connection to nature.

Agree Disagree

48. Let's face it, menstruation is dirty and it is smelly.

Agree Disagree

49. Changes which occur around the time of menstruation should not be labelled as a syndrome.

Agree Disagree

50. I function as well when I am menstruating as I do at other times.
Agree Disagree

51. Menstruation is important because it is a signal for me to take care of myself.
Agree Disagree

52. Menstruation is an experience which should be kept private.
Agree Disagree

53. I feel embarrassed if menstruation is mentioned in mixed company.
Agree Disagree

54. Premenstrual syndrome is a good label because it acknowledges the reality of changes that women experience around the time of menstruation.
Agree Disagree

55. I think there is a spirituality that goes with the sense of being a woman.
Agree Disagree

56. One of the most negative aspects of my menstrual experience is physical discomfort.
Agree Disagree

57. Menstrual product advertising does not convey any useful information.
Agree Disagree

58. Women who experience premenstrual syndrome may not be coping well with other situations in their lives.
Agree Disagree

59. There should be more respect given to menstruation so that you could take it easy for a day.
Agree Disagree

60. I think that being a woman is closely associated with reproductive power.
Agree Disagree

61. Premenstrual syndrome is a label which reflects negative attitudes toward women's health in Canadian society.
Agree Disagree

62. Menstruation interferes with my life.
Agree Disagree

63. One of the most negative aspects of my menstrual experience is a loss of emotional control.

Agree Disagree

64. It is a problem that during menstruation women are expected to carry on with their lives as if nothing was happening.

Agree Disagree

65. It is beneficial to reduce some of my activities during menstruation.

Agree Disagree

66. Menstruation is a time when I move into an inner space, that feminine part of myself.

Agree Disagree

Consensus Questionnaire on Premenstrual Syndrome

Do you experience premenstrual syndrome (PMS)? Yes ___ No ___ Don't know ___ The following statements are to be answered only by those women who answered yes to the experience of PMS. Do you agree or disagree with these statements? They are all based on responses from women interviewed within the past year. Please circle your answer.

1. I don't consider PMS to be a problem for me.

Agree Disagree

2. The experience of PMS is like being on an emotional roller coaster.

Agree Disagree

3. I think PMS is caused by an imbalance in female hormones.

Agree Disagree

4. If a woman experiences severe PMS she will probably experience severe symptoms in menopause.

Agree Disagree

5. At times, my experience of PMS is a positive one.

Agree Disagree

6. PMS gets worse as a woman ages.

Agree Disagree

7. Refraining from certain items, (for example, alcohol, caffeine and sugar) helps to alleviate PMS symptoms.

Agree Disagree

8. Exercise helps to alleviate PMS.

Agree Disagree

9. When a woman has a child, I think the severity of her PMS will decrease.

Agree Disagree

10. Bloating is one of the worst changes I experience with PMS.

Agree Disagree

11. The use of the term PMS diminishes and demeans women.

Agree Disagree

12. PMS jokes minimize the seriousness of PMS.

Agree Disagree

13. It is important to keep any discussion of PMS out of the workplace.

Agree Disagree

14. PMS affects my life severely.

Agree Disagree

15. I feel like I am a victim of my hormones.

Agree Disagree

16. PMS has a negative connotation for most people.

Agree Disagree

17. When I experience PMS I think the physical discomfort is the hardest to deal with.

Agree Disagree

18. I am more critical of myself during PMS.

Agree Disagree

19. I have nothing to complain about generally, in my life, but when I get PMS it just feels like everything's falling apart.

Agree Disagree

20. During PMS I hate myself.

Agree Disagree

21. I think talking about PMS gives us a couple of days in the month where we're allowed to talk about our feelings.

Agree Disagree

22. When I experience PMS, I think the emotional changes are the hardest to deal with.

Agree Disagree

23. PMS is a way of making sense out of something that doesn't make sense.

Agree Disagree

24. I don't let PMS control me because I will do things I've planned.

Agree Disagree

25. PMS refers to the changes which occur prior to the period. It does not include those changes that occur during the bleeding process.

Agree Disagree

26. I think that creativity is a part of PMS.

Agree Disagree

27. A sense of strength and well-being is something that I associate with PMS.

Agree Disagree

28. When I experience PMS I don't feel like I'm normal, either physically or mentally.

Agree Disagree

29. It is a good thing that PMS has been identified.

Agree Disagree

30. What you're not coping with during PMS is probably a reflection of what you weren't coping with prior to PMS.

Agree Disagree

31. PMS is a problem because people look at it as an excuse for unacceptable behaviour.

Agree Disagree

32. We have PMS whether we want it or not. We don't have a choice.

Agree Disagree

33. There's not much I can do about PMS.

Agree Disagree

34. Depression is one of the worst symptoms I experience with PMS.

Agree Disagree

35. I think women are blamed for experiencing PMS.

Agree Disagree

36. Symptoms prior to the period should be referred to as premenstrual changes rather than premenstrual syndrome.

Agree Disagree

37. I think PMS is just part of the monthly cycle.

Agree Disagree

38. I think that in order to fully understand PMS a woman must experience it herself.

Agree Disagree

APPENDIX I

Biographical Information

All names are pseudonyms and the information listed was accurate at the time of the interview.

Amanda: age 23, single, a university student - Amanda was born in Winnipeg, MB.
PMS: yes.

Amy: age 20, single, a university student - Amy was born in England, although she came to Canada when she was 6 months old.
PMS: no.

Ann: age 35, single, employed as a marketing consultant - Ann was born in Finland and has been in Canada for 27 years.
PMS: no.

Aset: age 23, lives with her partner, employed as an assessor - Aset was born in Brazil and has been in Canada since she was four years old.
PMS: yes.

Aviva: age 32, lives with her partner, employed as a secretary - Aviva was born in Winnipeg, MB.
PMS: yes.

Brenda: age 27, single, a university student - Brenda was born in Windsor, ON.
PMS: yes.

Carol: age 44, married with three children, employed as an administrator - Carol was born in Scotland and has been in Canada for 37 years.
PMS: yes.

Celeste: age 31, single, attending community college - Celeste was born in Winnipeg, MB.
PMS: yes.

Claudia: age 19, single, a university student - Claudia was born in White Rock, B.C.
PMS: no.

Colleen: age 47, separated, employed as an accountant - Colleen was born in Winnipeg, MB.
PMS: no.

Dominique: age 42, divorced, a university student - Dominique was born in Ottawa, ON.
PMS: yes.

Emily: age 24, single, a university student - Emily was born in Gander, NFLD.
PMS: no.

Gwen: age 38, single, a university student - Gwen was born in Souris, MB.
PMS: yes.

Helen: age 39, single, a university student - Helen was born in Winnipeg, MB.
PMS: yes.

Holly: age 26, single, works as a full-time volunteer - Holly was born in Winnipeg, MB.
PMS: yes.

Jackie: age 27, single, attends community college - Jackie was born in Winnipeg, MB.
PMS: yes.

Jane: age 21, single, a university student - Jane was born in Winnipeg, MB.
PMS: yes.

Jean: age 40, married, employed as an administrative assistant - Jean was born in Edmonton, AB.
PMS: yes.

Joan: age 49, married with one child, employed as a nurse - Joan was born in Dauphin, MB.
PMS: yes.

Jody: age 49, married with two children, employed as an education specialist - Jody was born in Norway House, MB.
PMS: yes.

Katrina: age 48, married with three children, employed as a social worker - Katrina was born in Vancouver, B.C.
PMS: yes.

Laurel: age 38, divorced, employed as a nurse - Laurel was born in Winnipeg, MB.
PMS: don't know.

Leslie: age 41, separated with three children, works as a massage therapist - Leslie was born in England and has been in Canada since she was one year old.
PMS: no.

Louise: age 32, married, employed as an art conservator - Louise was born in Winnipeg, MB.
PMS: yes.

Marg: age 34, single, employed as a market analyst - Marg was born in Regina, SK.
PMS: yes.

Marie: age 30, single, employed as an assessor - Marie was born in Thompson, MB.
PMS: yes.

Marsha: age 43, married with five children, employed as a nurse - Marsha was born in Kirkland Lake, ON.
PMS: yes.

Mary: age 36, single with one child, a university student - Mary was born in Winnipeg, MB.
PMS: no.

Michelle: age 23, single, employed as a child development counsellor - Michelle was born in Winnipeg, MB.
PMS: yes.

Myra: age 55, divorced with two children, employed in advertising - Myra was born in Minnedosa, MB.
PMS: yes.

Pat: age 45, married, retired. Pat was born in Regina, SK.
PMS: yes.

Paula: age 36, lives with her partner, a university student - Paula was born in Winnipeg, MB.
PMS: yes.

Rachel: age 40, married, employed in public relations - Rachel was born in Holland and came here when she was 21/2 years old.
PMS: yes.

Ricki: age 39, single with one child, attends community college - Ricki was born in Jasper, AB.
PMS: yes.

Rosemarie: age 42, divorced with one child, a university student - Rosemarie was born in Switzerland and has been in this country since she was two years old.
PMS: yes.

Sally: age 34, single, employed as a hair stylist - Sally was born in Dauphin, MB.
PMS: no.

Sarah: age 32, married with one child, a university student - Sarah was born in Dominica and has been in Canada for 10 years.
PMS: don't know.

Shelby: age 25, single, unemployed - Shelby was born in Winnipeg, MB.
PMS: yes.

Sherry: age 22, lives with her partner, a university student - Sherry was born in Ste. Rose du Lac, MB.
PMS: don't know.

Tanya: age 31, married with three children and is pregnant, a full-time mother - Tanya was born in Assiniboia, SK.
PMS: yes.

Tracey: age 36, married with two children, self-employed - Tracey was born in Winnipeg, MB.
PMS: yes.

Ula: age 29, single, employed as a teacher - Ula was born in Winnipeg, MB.
PMS: yes.

Zena: age 32, single, employed as a nurse - Zena was born in Winnipeg, MB.
PMS: yes.

APPENDIX J

Information Derived From the Interviews

What do you think of when you hear the word menstruation? What comes into your mind?

This was the first question asked in all the interviews and it was an attempt to elicit women's feelings on menstruation before specific questions were asked. Free listing was initially conducted on the responses to identify the items in the domain. The results of this task led to the realization that menstruation as a domain was too large and unwieldy to deal with in this fashion, although the exercise helped to narrow the responses into specific categories. The terms themselves are presented below to provide an idea of the varied responses.

From the responses, four categories were constructed:

1) **Conceptual:** this includes description of the term, representation, normative aspects (health and illness; PMS), political issues (business and control).

a) Description:

Responses:	
monthly cycle	biological
woman's cycle	monthly period
physical	hormonal changes
monthly blood flow	instinctual
not an illness	monthly bleeding
cyclic change	happens once a month
shedding of uterine wall	physiological behaviour

b) Representation:

Responses:	
clinical	process identifier
called a curse, a negative thing	medical
symbolic	old-fashioned
red	blood as fertilizer
antiquated	in tune with seasons
superstitious things	think of earth, sun, moon

c) Normative:

Responses:	
acceptable part of life	health
something that comes	natural
normal	handle it as matter of course
event that happens	live with it and get past it

d) Political:

Responses:	
power	business side
buying tampons, buying pads	PMS is not an excuse
pad advertising	expense
importance of awareness	man's world
products for making money	production of it in society
if men menstruated would they have to pay	

2.) **Functional:** this includes reproductive and identity issues (body and self);

a) Reproduction:

Responses:	
children, kids, babies	pregnancy
reproduction	part of reproductive process
miracle	means I'm not pregnant
fact I can bear children	possibility of getting pregnant

b) Identity:

Responses:	
female	women
growing up	becoming a woman
feminine	something women go through
spiritual	

3.) **Experiential:** emotional/psychological changes and physical changes, change over time, material issues.

a) Emotional/psychological changes:

Responses:	
grouchiness	premenstrual tension
depression	creativity
PMS	anxiety
vivid dreams	introspective

b) Physical changes:

Responses:	
water retention	sex
less energy	bloating
cramps	feel unwell
pain	PMS
discomfort	uncomfortable

c) Change over time:

Responses:	
stages of life	puberty
menopause	period has changed
used to fret	as a teenager natural thing
means different things	used to be pain
hated it when I was younger	changing and evolving
time of changing needs in myself	used to be relieved I was not pregnant

d) Material issues:

Responses:	
blood	bleeding
buying tampons, buying pads	the flow of blood
monthly bleeding	schedule things
time of dealing with blood	don't like the feel of a pad
making sure I have the equipment	have to be more conscious of what's
going on	

4.) **Attitudinal:** the negative and positive aspects of menstruation and neutrality issue.

a) Negative:

Responses:	
ugh	unnecessary
side effects	blehh
pain in the neck	burden
dirty	pain in the butt
ordeal	unclean
tired of it	mess
a drag	nuisance
inconvenience	negative thing
annoyance	worry
bad time of month	embarrassment
not a positive, happy thought	really bad experience
jokes about PMS	uncomfortable subject
extra stressor	will it ever end?
fact it was called a curse	expense
dread	hardly wait for menopause
one word from curse	love/hate relationship

b) Positive:

Responses:	
exciting	relief
need to take it more slowly	miracle
love it	fantastic
celebrate flow	power
strength	cleansing
love/hate relationship	opportunity to get more in touch with myself

c) Neutrality:

Responses:	
not big thing in life	nothing bad, nothing good
don't think about it much	has not affected life in big way
don't regard it as wonderful or particularly horrible	

An interesting aspect of this question and the responses to it was that the answers verified the questioning areas that were chosen in the interview schedule.

APPENDIX K

CONSENSUS STATEMENTS: EXTREMELY POSITIVE GROUP

AGREE	#	DISAGREE
#1 Normal part of woman's life	10	#23 Not a major part of woman's identity
#2 Changes are caused by hormone fluctuations	10	#33 Menstruation is really bad experience
#8 Menstruation has positive health benefits	10	#43 Should avoid discussion in workplace
#15 PMS used to devalue woman's point of view	10	#48 Menstruation is dirty and smelly
#16 More in touch with body during menstruation	10	#52 Should be kept private
#19 Part of cyclical process	10	#53 Embarrassed if mentioned in mixed company
#26 Anger sometimes identified as PMS	10	**#62 Menstruation interferes with life**
#37 Like the changes during menstruation	10	
#39 Exercise helps alleviate menstrual problems	10	
#40 Bleeding indicates proper functioning	10	
#55 Spirituality part of being a woman	10	
#3 Feel alive, vivacious and womanly	9	#7 Menstrual blood has unpleasant odour
#6 Important as means of cleansing body	9	**#36 Natural process but don't like it**
#11 Sex normal during menstruation	9	
#13 Would not stop menstruation, part of identity	9	
#17 PMS label men don't understand	9	
#30 Important as a bond shared with other women	9	
#4 PMS term to describe distressing changes	8	#14 Don't think much about menstruation
#12 Heightened emotions part of menstruation	8	**#28 Menstruation - inconvenience and expense**
#32 Aware of body and time of ovulation	8	**#35 Feel less attractive at time of menstruation**
#42 Doctors treat menstruation as illness	8	**#63 Negative - loss of emotional control**
#45 More positive outlook with feminism	8	
#47 Aware of connection to nature	8	
#57 Menstrual advertising no useful information	8	
#60 Reproductive power associated with women	8	
#61 PMS reflects negative attitudes in society	8	
#10 Emotions affected by female hormones	7	**#5 Menstruation is an inconvenience**
#22 PMS - socially unacceptable behaviour	7	#18 More attention to hygiene - not as clean
#29 Psychiatric labelling says women are crazy	7	**#31 More self-conscious about body image**
#46 Function as well premenstrually	7	
#50 Function as well when menstruating	7	
#49 Changes should not be labelled as syndrome	7	
#51 Menstruation is signal for self-care	7	
#66 Time to move into inner space, the feminine	7	
#27 Estrogen has positive health benefits	6	
#34 Time to reflect on life circumstances	6	
#41 Look forward to menstruation	6	
#44 Love the experience of menstruation	6	
#59 Should be more respect so take a day off	6	

#'s 9, 20, 21, 24, 25, 38, 54, 56, 58, 64, 65 did not achieve significance

Bold type indicates statements on which the extremely positive group holds opposite views to Group A

CONSENSUS STATEMENTS: PMS GROUP A

AGREE	#	DISAGREE
#1 Normal part of woman's life	18	**#44 Love the experience of menstruation**
#39 Exercise helps alleviate menstrual problems	18	
#10 Emotions affected by female hormones	17	#38 Forces you to take a break
#12 Heightened emotions part of menstruation	17	**#41 Look forward to menstruation**
#19 Part of cyclic process	17	#43 Should avoid discussion in workplace
#26 Anger sometimes identified as PMS	17	#53 Embarrassed if mentioned in mixed company
#4 PMS term to describe distressing changes	16	**#3 Feel alive, vivacious and womanly**
#20 Menstruation not wonderful or horrible	16	#21 Time to focus on personal issues
#27 Estrogen has positive health benefits	16	**#37 Like the changes during menstruation**
#2 Changes are caused by hormone fluctuations	15	**#46 Function as well premenstrually**
#15 PMS used to devalue woman's point of view	15	#52 Should be kept private
#32 Aware of body and time of ovulation	15	
#36 Natural process but don't like it	15	
#5 Menstruation is an inconvenience	14	#33 Think menstruation is really bad experience
#6 Important as means of cleansing body	14	**#34 Time to reflect on life circumstances**
#8 Menstruation has positive health benefits	14	**#42 Doctors treat menstruation as illness**
#35 Feel less attractive at time of menstruation	14	#48 Menstruation is dirty and smelly
#40 Bleeding indicates proper functioning	14	
#55 Spirituality part of being a woman	14	
#56 Negative aspect is physical discomfort	14	
#9 Motherhood important part of being a woman	13	**#22 PMS - socially unacceptable behaviour**
#24 Woman might be tired because of loss of blood	13	#25 Unhealthy to use tampons
#28 **Menstruation - inconvenience and expense**	13	**#50 Function as well when menstruating**
#45 More positive outlook with feminism	13	
#65 Reduce activities during menstruation	13	
#11 Sex normal during menstruation	12	#58 During PMS not coping well with situations
#31 More self-conscious about body image	12	**#66 Time to move into inner space, the feminine**
#54 PMS is a good label	12	
#60 Reproductive power associated with women	12	
#63 Negative aspect loss of emotional control	12	
#64 Problem that women expected to carry on	12	
#29 Psychiatric labelling says women are crazy	11	#14 Don't think much about menstruation
#30 Important as a bond shared with other women	11	**#47 Connection to nature when menstruating**
	11	**#57 Menstrual advertising no useful info**
#62 Menstruation interferes with life	10	#23 Not a major part of a woman's identity

#'s 7, 13, 16, 17, 18, 49, 51, 59, 61 did not achieve significance

Bold type indicates statements on which the PMS Group A group holds opposite views to the extremely positive group.

APPENDIX L

Members of Subgroups

Extremely Positive Group	
Name	**Age**
Aset	23
Emily	24
Holly	26
Jane	21
Leslie	41
Marg	34
Marie	30
Mary	36
Rosemarie	42
Zena	32

PMS Group A - Emotional		PMS Group B - Physical	
Name	**Age**	**Name**	**Age**
Aviva	32	Amanda	23
Brenda	27	Aset	23
Carol	44	Holly	26
Celeste	31	Jackie	27
Dom	42	Jane	21
Gwen	38	Jean	40
Helen	39	Marie	30
Joan	49	Michelle	23
Jody	49	Myra	55
Katrina	48	Paula	36
Louise	32	Rosemarie	42
Marg	34	Shelby	25
Marsha	43	Tracey	36
Pat	45	Zena	32
Rachel	40		
Ricki	39		
Tanya	31		
Ula	29		

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