Topics in Human Sexuality: Menstruation

Introduction

Although menstruation is a biological event and an integral part of female sexuality it is more complex than just the physiology. Menstruation, the culmination of the monthly cycle in which the body prepares itself for a possible pregnancy is also the start of womanhood and of female sexuality. Many cultures celebrate the first menstruation with a moon ritual in which the newly menstruating young woman is joined by important females to mark her entry into womanhood and to celebrate menstruation. Understanding the biological and psychological aspects of menstruation will allow mental health professionals to have a deeper understanding of human sexuality.

Educational Objectives

1. Define puberty and list changes the female experiences.
2. Discuss the psychological effects of precocious puberty.
3. Define menstruation and the phases of the menstrual cycle.
4. List the symptoms of toxic shock syndrome.
5. Discuss common menstrual problems.
6. Describe psychological aspects of the menstrual cycle (PMS/PMDD)
7. Discuss treatment of PMS/PMDD.

Defining Puberty

Puberty is the physical process of sexual maturation. The term puberty is derived from the Latin word *puberatum* (age of maturity) and refers to the bodily changes of sexuality. In girls, puberty usually begins at 11 years of age, but may start as early as age 7. A recent study published in *Pediatrics* found that by age 7, about 10 percent of white and 23 percent of African-American girls had started developing breasts. A study published in 1997 found that by age 7, only 5 percent of white females and 15 percent of black females had reached puberty. Puberty, then, is occurring earlier.

Puberty is initiated by hormone signals from the brain to the ovaries. The first sign of puberty in girls is breast development. As growth of the breasts continues, females develop contours of the hips and buttocks, distinguishing them from their male counterparts. Growth of pubic hair begins shortly after breast development, followed two years later by
underarm hair growth. There is some variability in this process, such as some young women developing breasts but showing no other signs of sexual maturation.

Girls also generally experience a growth spurt during the ages of 9.5 to 14.5. This growth gradually slows as estrogen levels increase.

**Precocious (early) puberty** is defined as puberty that occurs before age 7-8. In girls, this is signaled by the growth of breasts and pubic hair. In many cases, there is no identifiable cause for precocious puberty, and it may be considered a variation of normal puberty. It is always best to consult with a physician, however, because early puberty can be caused by medical conditions such as adrenal gland abnormalities or ovarian abnormalities. The most likely factor determining age of menarche is percentage of body fat (Hopwood et. al, 1990). In other words, the percentage of body weight that is fat (such as breast tissue) must rise for menstruation to occur.

Precocious puberty does have psychological effects. Many females who start puberty early tend to view their bodies negatively (Simmons and Blyth, 1987.) This may be due to the societal pressures that focus on thinness. Girls who has gone through puberty early tend to be bigger than peers. Early developers are less satisfied with their bodies and are more likely to care about how they look. These girls stand out in comparison to friends and this may result in lower self esteem. There is also some evidence that girls who reach puberty early may be rejected by peers, and may seek older and more mature friends, which can lead to premature experiences, particularly within the sexual realm (Ge et al, 1996). Ge theorizes that these young women may not have had enough time to complete the necessary childhood developmental tasks before entering the world of the older crowd. They have had less time to form a sense of self, which could lead to poor decision-making.

Delayed puberty is usually defined as puberty that occurs later than the norm. If a young woman does not develop breast tissue by age 14 or begin menarche by 5 years after breast development, puberty is considered delayed. Hopwood's explanation of body fat also explains why girls with anorexia and those that engage in excessive exercise may not menstruate within the norm or why there may be a cessation in menstruation.

At about ages 12-13 **menarche**, first menstruation begins. Menstruation is the shedding of the lining of the uterus (endometrium) accompanied by bleeding. Menstruation occurs in monthly cycles throughout a woman's reproductive life. Menstruation starts during puberty and stops permanently at menopause.

Women cannot actually become pregnant until about two years after menarche.

Menarche is an important biological event but also an important psychological one. Girls display a range of reactions to menarche, which range from acceptance and pride to shame and disgust. The most negative reactions occur in girls who have not been prepared for menarche.
Phases of Menstruation

The menstrual cycle begins with the first day of bleeding, which is counted as day 1. The cycle ends just before the next menstrual period. Menstrual cycles normally range from about 25 to 36 days. Only 10 to 15% of women have cycles that are exactly 28 days long. Usually, cycles vary the most and the intervals between periods are longest in the years immediately after menarche and before menopause. Menstrual bleeding lasts 3 to 7 days, averaging 5 days.

The menstrual cycle is regulated by hormones. Luteinizing hormone and follicle-stimulating hormone are produced by the pituitary gland and promote ovulation and stimulate the ovaries to produce estrogen and progesterone. Estrogen and progesterone stimulate the uterus and breasts to prepare for possible fertilization.

The menstrual cycle has three distinct phases. These are:

**Follicular Phase:** This phase begins on the first day of the menstrual cycle. The primary process that occurs in the follicular phase is the development of follicles in the ovaries.

At the beginning of the follicular phase, the lining of the uterus is thick with nutrients that are intended to nourish an embryo. If no egg has been fertilized, estrogen and progesterone levels are low. The top layers of the uterus is shed, and menstrual bleeding occurs. The follicular phase lasts about 13 or 14 days. This phase ends when the level of luteinizing hormone surges. The surge results in release of the egg.

**Ovulatory Phase:** This phase begins when the level of luteinizing hormone surges. Luteinizing hormone stimulates the dominant follicle to bulge from the surface of the ovary and finally rupture, releasing the egg. The ovulatory phase usually lasts 16 to 32 hours. It ends when the egg is released.

**Luteal Phase:** This phase begins after ovulation. It lasts about 14 days (unless fertilization occurs) and ends just before a menstrual period. In this phase, the ruptured follicle closes after releasing the egg and forms a structure called a corpus luteum, which produces increasing quantities of progesterone. If the egg is not fertilized, the corpus luteum degenerates after 14 days, and a new menstrual cycle begins.

**Toxic Shock Syndrome**

Toxic shock syndrome is a life-threatening bacterial infection that has been associated with the use of tampons. Toxic shock syndrome results from toxins produced by *Staphylococcus aureus* (staph) bacteria, but the condition may also be caused by toxins produced by *group A*
streptococcus (strep) bacteria. Symptoms of toxic shock syndrome develop suddenly, and the disease can be fatal.

Researchers don't know exactly how tampons cause toxic shock syndrome. It may be that when tampons are left in place for a long time, they become a breeding ground for bacteria. Another hypothesis is that the superabsorbent fibers in the tampons can scratch the surface of the vagina, making it possible for bacteria or their toxins to enter the bloodstream.

Symptoms of toxic shock syndrome include:

- Sudden high fever
- Low blood pressure
- Vomiting or diarrhea
- A rash resembling a sunburn
- Confusion
- Muscle aches
- Redness of the eyes, mouth and throat
- Seizures
- Headaches

To reduce chances of contracting toxic shock syndrome women should change tampons frequently, at least every four to eight hours. Using lower absorbency tampons also reduces risks.

**Menstrual Problems**

**Dysmenorrhea.** Dysmenorrhea or painful menstruation is the most common menstrual problem. Its prevalence is estimated at 25% of women and up to 90% of adolescents (Durain, 2004). The most common symptom of dysmenorrhea is cramping pain in the pelvic region but may also include headaches, backaches, nausea, and pelvic bloating and pressure.

Although there are many possible causes of dysmenorrhea, one common hypothesis involves prostaglandins, hormone-like substances produced in the lining of the uterus. These
Menstruation

Chemicals cause the uterine muscles to contract. Women with severe menstrual pain generally have higher levels of prostaglandins.

Treatment generally involves the use of over-the-counter medications, such as aspirin, or Midol Naprosyn, which is a prescription medication, is also widely used for symptoms of dysmenorrhea. Dietary changes such as a decrease in caffeine intake, and aerobic exercise may also be helpful.

**Endometriosis.** Endometriosis is the abnormal growth of endometrial cells similar to those that form the inside of the uterus, but in a location outside of the uterus (such as in the fallopian tubes, bladder, vagina or cervix). Symptoms of endometriosis vary depending on the location of the growth. Many women who have endometriosis do not have symptoms. The common symptoms are pelvic pain, which usually occurs during or just menstruation and lessens after menstruation. Some women also experience painful sexual intercourse or cramping during intercourse, or pain during bowel movements or urination. The pain intensity can change from month to month. Many with endometriosis also have fertility issues.

Endometriosis can be treated with medications and/or surgery. Nonsteroidal anti-inflammatory drugs (NSAIDs) can be used to help relieve pelvic pain and menstrual cramping. Oral contraceptive pills are also used to treat endometriosis. Surgery is more of a last resort when symptoms of endometriosis are severe or when there has been an inadequate response to other treatment.

**Amenorrhea.** Another common menstrual problem is amenorrhea, or the absence of menstruation. Primary amenorrhea is the absence of any menstrual cycle (generally age 18 is used as a guideline). Secondary amenorrhea is the absence of menstruation for 6 or more months in a woman who has already started menstruation and who is not pregnant, breastfeeding or in menopause. Secondary amenorrhea can be related to medical conditions such as hormonal imbalances, disease, stress, nutritional deficits (such as an eating disorder), excessive body weight, or more than 8 hours of vigorous exercise a week.

**Psychological Problems Associated with Menstruation**

In addition to the biological aspects of menstruation, mental health professionals also need to be aware of psychological problems. Psychological and cultural attitudes towards menstruation have alternated between repulsion and celebration. Some cultures revere menstruation as intimately connected with the renewal of life. Others fear menstruation and separate menstruating women as a way not to contaminate men.

The biological process of menstruation is neither physically nor psychologically debilitating. That does not mean, however, that it is a time in which there are not challenges. The term “premenstrual tension” was coined in 1931 and used to refer to the mood changes that happen during the luteal phase of the menstrual cycle. Symptoms of premenstrual tension
are numerous, and include depression, irritability, fatigue and headaches. Many women experience these symptoms to a greater or lesser extent.

The term **premenstrual syndrome** (PMS) is reserved for symptoms that are incapacitating enough to interfere with performance of daily activities. More common symptoms include mood swings, irritability, abdominal bloating, breast tenderness, changes in appetite, headache, anxiety and crying spells. Many causes of PMS have been suggested, including progesterone deficiency, fluid balance abnormalities, and nutritional deficiencies. However, there is no scientific evidence to unequivocally support any of these as the sole cause of PMS. Treatment of PMS may include dietary changes, exercise or prescribed medications (oral contraceptives, antidepressant, NSAIDs).

**Premenstrual dysphoric disorder** (PMDD) is a severe form of premenstrual syndrome, affecting 3% to 8% of women. Women with a personal or family history of depression or postpartum depression are at greater risk for developing PMDD. Although the exact cause of PMDD is not known, most researchers believe that PMDD is brought about by hormonal changes related to the menstrual cycle. Studies have shown a connection between PMDD and low levels of serotonin.

The PMDD criteria of the DSM-IV-TR require the presence of 5 of 11 symptoms to make the diagnosis of PMDD. At least 1 of the first 4 symptoms must occur during the last week of the luteal phase, begin to remit within a few days of the onset of menstrual flow, and be absent in the week after menses. The symptoms must be severe enough to interfere with social, occupational, sexual, or scholastic functioning. Symptoms must be discretely related to the menstrual cycle and must not merely be a worsening of preexisting depression, anxiety, or personality disorder.

**DSM criteria for Premenstrual Dysphoric Disorder**

A. In most menstrual cycles during the past year, at least 5 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 the onset of the follicular phase, and were absent in the week postmenses, with at least 1 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 (eg, 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 (eg, 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
Many of the same strategies used to treat PMS are also helpful in relieving symptoms of PMDD. The four main forms of treatment are:

**Nutrition.** Limit intake of salt, caffeine, refined sugar, and alcohol. Natural supplements, such as calcium, vitamin B6, vitamin E, and magnesium may be helpful although, their effectiveness has not been well-studied.

**Exercise.** Regular aerobic exercise such as walking or swimming appears to improve premenstrual symptoms.

1. **Antidepressant Medications.** Several antidepressants may be used to treat PMDD. The drugs approved by the FDA for the treatment of PMDD are Sarafem (Fluoxetine), Paxil CR, and Zoloft. These medicines can be taken continuously or intermittently, just during the 14-day premenstrual period. Taking them intermittently may decrease the side effects of these drugs.

**Hormones** can be used to treat PMDD. Ovulation can be stopped either using medication or surgically (as a last resort). Medicines used to stop ovulation include birth control pills, Danazol, Zoladex, Synarel, and Lupron. The second hormonal approach to treat PMDD is the use of progesterone or estrogen to relieve symptoms. It’s unclear whether this approach is effective.

2. **Counseling.** Therapy to help women with PMDD develop effective coping strategies may help some with PMDD. Relaxation therapy, meditation, reflexology, and yoga may also help.

**Summary**

Menstruation is an important biological and psychological event in the lives of women. Understanding these processes allow mental health professionals to better work with women of all ages. Challenges such as Premenstrual Syndrome and Premenstrual Dysphoric Disorder are of particular interest as counseling can be effective in their treatment.
References


