Unit IX: Developmental Psychology

Module 53
Sexual Development
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Sexual Development

Module Learning Objectives

53-1 Explain how biological sex is determined, and describe the role of sex hormones in gender development.

53-2 Describe some of the ways that sexual development varies.

53-3 Discuss the factors that reduce the risk of sexually transmitted infections.

53-4 Discuss the factors that influence teenagers’ sexual behaviors and use of contraceptives.

53-5 Summarize what research has taught us about sexual orientation.
Sexual Development
Prenatal Sexual Development

• Of your 46 chromosomes, 45 are unisex

• About 7 weeks after conception, the Y chromosome triggers the testes to develop and produce testosterone

• During the 4th & 5th prenatal months sex hormones bathe the brain and influence its wiring
Primary Sexual Characteristics

During puberty primary sexual characteristics— the reproductive organs and external genitalia— develop rapidly.
Secondary Sexual Characteristics

• **Secondary sexual characteristics**—the nonreproductive traits such as breasts and hips in girls, and facial hair and deepening of voice in boys - develop.

• Pubic hair and armpit hair grow in both sexes.
Variations on Sexual Development
Variations on Sexual Development

- Intersex individuals are born with intermediate or unusual combinations of male and female physical features (*normal male hormones and testes, but no penis, for example*)
- Brenda/David Reimer
Sexually Transmitted Infections
Sexually Transmitted Infections

- Rates of STIs are rising
- 39.5% of sexually active 14-19 year olds have an STI
- Condoms offer protection, but not 100% (such as skin-to-skin STIs)
- Condoms have been 80% effective preventing the transmission of AIDS
Teen Pregnancy
Reasons for Lack of Contraception Use Among Teens

1. **Guilt Related to Sexual Activity:** Guilt reduces sexual activity, but it also reduces the use of contraceptives.

2. **Minimal Communication:** Many teenagers feel uncomfortable discussing contraceptives.

3. **Alcohol Use:** Those who use alcohol prior to sex are less likely to use contraceptives.

4. **Mass Media:** The media’s portrayal of unsafe extramarital sex decreases the use of contraceptives.
Sexual Orientation
Sexual Orientation

- As far as we know, all cultures in all times have been predominantly heterosexual.
- Based on survey results in the US & Europe, about 3% of males and 1-2% of females are exclusively homosexual.
Sexual Orientation

- Research has not yielded any environmental factors that influence sexual orientation.
- Research has indicated the following biological influences on sexual orientation:
  - Evidence of homosexuality in other species
  - Gay-straight brain differences
  - Genetics
  - Prenatal hormones
### Table 53.1 Biological Correlates of Sexual Orientation

**Gay-straight trait differences**

Sexual orientation is part of a package of traits. Studies—some in need of replication—indicate that homosexuals and heterosexuals differ in the following biological and behavioral traits:

- spatial abilities
- fingerprint ridge counts
- auditory system development
- handedness
- occupational preferences
- relative finger lengths

On average (the evidence is strongest for males), results for gays and lesbians fall between those of straight men and straight women. Three biological influences—brain, genetic, and prenatal—may contribute to these differences.

**Brain differences**

- One hypothalamic cell cluster is smaller in women and gay men than in straight men.
- Gay men’s hypothalamus reacts as do straight women’s to the smell of sex-related hormones.

**Genetic influences**

- Shared sexual orientation is higher among identical twins than among fraternal twins.
- Sexual attraction in fruit flies can be genetically manipulated.
- Male homosexuality often appears to be transmitted from the mother’s side of the family.

**Prenatal influences**

- Altered prenatal hormone exposure may lead to homosexuality in humans and other animals.
- Men with several older biological brothers are more likely to be gay, possibly due to a maternal immune-system reaction.