



“A loving heart is the beginning of all knowledge.”

— Thomas Carlyle

Introduction to the Study of Sex and Sexuality

Student Learning Objectives

- 1** List eight reasons for studying human sexuality
- 2** Explain the three definitions of *sex*
- 3** List and describe the six dimensions of human sexuality
- 4** Explain the advantages and limitations of *sampling* in the scientific study of human sexuality
- 5** Compare the research methods of clinical case study, laboratory observation study, naturalistic observation study, and ethnographic study
- 6** Compare survey and experimental methods of sexuality research
- 7** Distinguish between the concepts of statistical average and socially normal

Nearly all human adults have innate needs for sexual activity and sexual expression with peers. However, people are not born knowing how to meet these needs. That's where learning about sex and sexuality come in. Beginning in early childhood and continuing throughout life, individuals learn their culture's beliefs, values, and rules of behavior for seeking and engaging in sexual experiences. In some cultures, values, attitudes, and rules regarding sexual behavior and expression are relatively stable over generations, and group members think and behave as their elders do and did. However, in modern, highly technological, mass-media-dominated cultures, sexual values and attitudes tend to change rapidly. For example, compared with today, sexual behaviors and values in the nineteenth and early twentieth centuries in much of Europe and North America were different. Guided by Victorian morality (referred to as such because Queen Victoria of England set the cultural standards of the time), sexual activity was to be restrained and sexual speech modest. Passionate behavior or expressions of intimacy were not tolerated in public. During the 1920s, however, Victorian sexual mores were rejected, particularly by women, as being puritanical, moralistic, and highly repressive. Sexual expression was expected to be more open and equal among the sexes. In the 1940s and 1950s, sexual conservatism was the norm, only to be replaced by the sexual openness of the 1960s, a trend that continues today.

Sex and love emerge from the rich and varied core of our humanity; they are essential to many aspects of our lives and overall health and well-being. Although it may be difficult to obtain healthful guidance and knowledge in our rapidly changing environment cluttered with mixed messages and self-serving advertisements, it is nevertheless possible to identify some basic goals for our sexual learning. These are:

1. To develop healthy, constructive, responsible, positive attitudes about sexuality and sexual expression
2. To accept oneself and others as sexual beings so that one can take pleasure in one's body and sexual interactions
3. To gain knowledge of sexual functions and responses
4. To develop skills for enhancing sexual relationships
5. To assess one's own sexuality education and to undertake the role of sex educator of one's children



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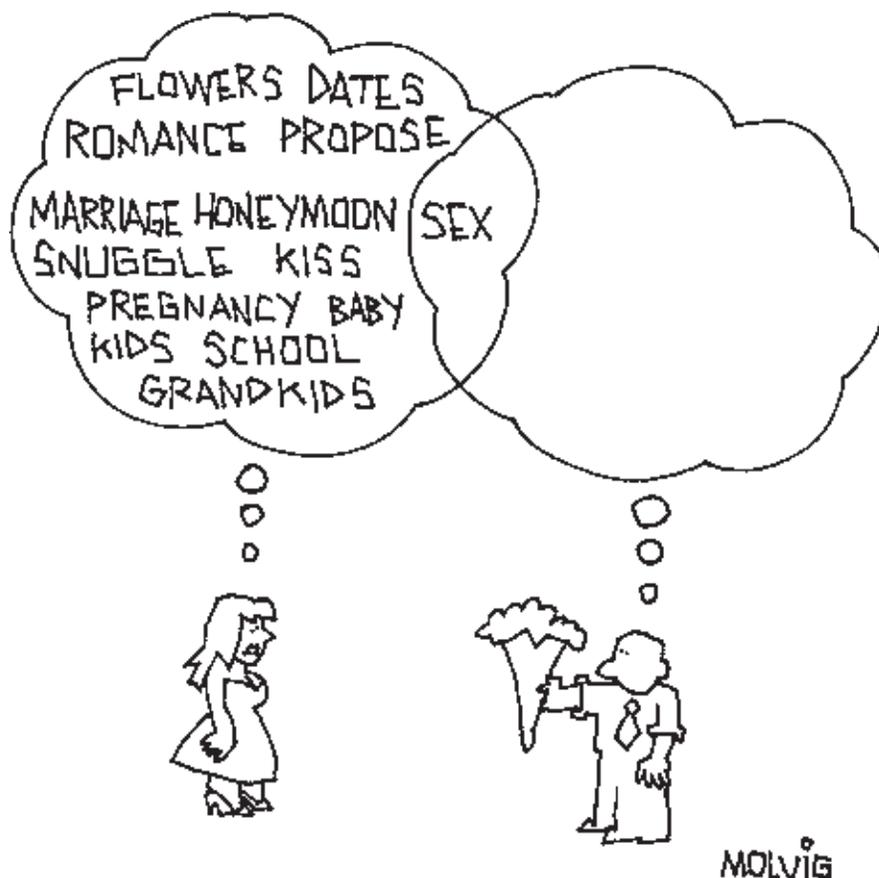
6. To increase knowledge and acceptance of sexual values and practices different from one's own
7. To foster confidence in one's own values and capacity for making wise sexual decisions
8. To increase one's capacity for intimate relationships and communication

The Definitions of Sex

The Word Sex

To study a subject, one must first define it. According to the *Oxford English Dictionary*, the English word *sex* entered the language in the late fourteenth century. At that time, the word referred to “either of the two divisions of organic beings, the males and the females” (spelled in those days *maals* and *femaals*). The word was based on the phoneme ‘sek,’ which is derived from the Latin adverb *secus*, meaning “in another way, otherwise, differently,” and its cognate, the Latin verb *secare*, meaning to cut, cleave, or divide, which is the root of the modern word *sect* and related words suggesting separating wholes into parts. Some ancient cultures and religions teach that the two sexes originated from dividing a unisex individual in two.

By 1600 the English word *sex* also came to denote aspects of an individual's personal characteristics that were thought to derive from her or his sexual biology.



Thus, the biological property of “femaleness” became associated with the social quality of “femininity,” and the biological property of “maleness” became associated with the social quality of “masculinity.” Although most modern dictionaries still define *sex* as having to do with personal characteristics, this concept is more accurately referred to as *gender* to distinguish its origins primarily in culture rather than in biology.

The Latin *secus* implies not only “otherwise” but also “badly” or “wrongly.” In English, the word *sex* came to refer to one’s personal qualities, but it carried with it the notion that males were the “better, sterner” sex and females the “softer, weaker”—and possibly dangerous—sex, as illustrated by these words written in 1613: “Strong Sampson and wise Solomon are witnesses, that the strong men are slaine by this weaker sexe.” Thus, imbedded in the origins of the definition of the word *sex* are the roots of our culture’s history of discrimination against women.

In the early twentieth century, the word *sex* became associated not only with biological and social classification but also with activities associated with biological reproduction and any experiences having to do with those activities, such as sexual gratification or the urge for it.

Sex-as-Classification

At the most fundamental biological level, *sex* refers to the manner in which humans (and most other multicelled organisms) reproduce. Generally, among animals (there are a few exceptions) sexual reproduction involves the mating of a sperm-producing individual (the male) with an egg-producing individual (the female). In humans, males deposit sperm inside the body of females, and fertilization and fetal development take place within specific organs inside the female body (see Chapters 3 and 4).

Besides reproduction, the genitals and other sex-specific anatomical characteristics (e.g., body size, body shape, pattern of body hair, appearance of breasts) can signal (depending on a society’s values) which individuals are socially appropriate and individually desirable as sexual and mating partners. The two distinct sexual anatomies also provide a classification scheme to which a variety of social expectations are applied, called the *gender role* (see Chapter 9).

Sex-as-Activity

Social groups define certain activities as *sex* or *having sex*. For example, some American young adults (and even a federal court in the impeachment proceedings of President Bill Clinton) consider oral stimulation of the penis or clitoris/vagina *not* to be actual sex because it is not penis-in-vagina intercourse.

Humans are sexually active a lot. A couple having sexual intercourse once or twice a week (the average for American married couples) will engage in more than 2000 acts of intercourse in a 50-year relationship. Even if they have 10 or more children, this degree of sexual activity indicates a strong desire to engage in sexual intercourse for reasons other than reproduction.

One reason that humans engage in frequent sexual activity is that they can. Unlike many other animals, which are physically capable of mating only during specific periods, adult humans are capable of sexual activity at any time. Furthermore, most people find sex pleasurable, which motivates them to do it often.

Another reason for frequent human sexual activity is that humans have the capacity for symbolic thought, which permits them to place a variety of meanings on sexual experience and activity—for example, proving attractiveness, enhancing

social standing in a group (peer pressure), earning money, expressing love or other emotions, and developing and maintaining emotional attachment (Table 1.1).

Sex-as-Experience

Besides biological and social classification and specific activities, the word *sex* can mean particular kinds of pleasurable experiences that have unique and identifiable qualities, often described as *erotic*, *lusty*, or *intimate*, which distinguish them from other kinds of pleasure, such as the satisfaction of hunger by food, the relief of pain, or winning the lottery. Sexual experiences can be described in terms of the following:

1. *Sexual gratification or pleasure*. This experience is commonly referred to as “getting off.” It involves a powerful genital focus, high sexual excitement, sensations of sexual pleasure, and mental processes (e.g., sexual fantasies, focus on one’s own experience) and behaviors intended to heighten sexual arousal and produce orgasm.
2. *Sexual intimacy*. This experience is often described as “making love.” It generally involves a sense of mutuality and emotional sharing with the partner that is heightened in mutual sexual activity, the partner’s personality

Table 1.1 Reasons for Sexual Activity Given by American College Students

Reason	Examples
Reproduction	To have children
Curiosity and Adventure	How will this feel?
	What’s that person like?
	What would it be like to ___ with _____?
Sexual Release	Feeling “horny”
	Relief of sexual tension
Love/Intimacy	Couple communication
	To express love
	To feel emotionally close
Other Reasons	To prove one’s femininity/masculinity
	Relationship maintenance
	Duty
	To control another
	To abuse another
	To make money
	To relieve stress
	To relieve boredom
	To relieve loneliness
	To have fun
	To give/receive comfort
	To gain a sense of accomplishment
	To prove one’s attractiveness
To prove adult status	
To gain/maintain acceptance in a social group (peer pressure)	

matter more than her or his physical qualities, and a sense of emotional closeness, affection, and personal investment in the partner.

Sexual intimacy is associated with *sexual self-disclosure*, which is making known to the partner aspects of one's sexuality that one considers private. During sexual activity, your body is generally unclothed; you allow yourself to be touched in "private" places to create intense feelings, urges, and responses; you may make noises and have or share unusual images; and you may experience powerful emotions. A partner's acceptance and appreciation of the private, innermost aspects of your sexuality creates a sense of trust and deepens the level of sexual and emotional intimacy.

3. *Sexual transcendence*. This experience is sometimes referred to as "sexual trance" or "tantric sex." It involves the shifting of mental awareness from everyday thoughts and concerns to deep, focused psychological involvement in the sexual experience, perhaps even to an altered state of consciousness characterized by a sense of timelessness, profound significance, dissolution of self-boundaries, and an oceanic feeling of oneness.

Defining sex as an experience helps account for the fact that some individuals may consider certain activities to be sexually pleasurable (oral stimulation of the penis or anal intercourse, for example) while other individuals may find those same activities unpleasant or repugnant. Furthermore, identical behaviors may in some instances be erotically pleasurable, whereas in others they may not be. Kissing a child or a grandparent can be quite a different experience than kissing a lover. The touching of the genitals in a medical examination is not the same as the touching of the genitals when expressing love and affection to a peer. Furthermore, any number of activities that are socially defined as sex may produce neither a sexual experience nor pleasure. And, a variety of activities that are not socially defined as sex may be used to create sexual experiences (Table 1.2).

Table 1.2 Nontraditional Sexual Practices

Sexual Practice	Description
Fetishism	Sexual arousal from (1) wearing or holding an article of clothing or inanimate object (e.g., shoes, boots, underwear, stockings, gloves, diapers, leather, rubber, lace, satin, spandex, skintight suits); (2) bodily functions (e.g., urination, defecation, lactation); or (3) physical disability (e.g., amputation, anatomical abnormality)
Partialism	Sexual arousal from observing or touching a specific body part (e.g., foot, hand, navel, ear)
Transvestic Fetishism	A heterosexual male deriving sexual arousal from wearing women's clothes ("cross dressing")
Exhibitionism	Exposing the genitals to an unsuspecting stranger
Frotteurism	Touching or rubbing against nonconsenting persons
Voyeurism	Sexual arousal from observing an unsuspecting person
Sexual Masochism	Sexual arousal from the act (not simulated) of being humiliated, tied up, beaten, or made to suffer
Sexual Sadism	Sexual arousal from acts (not simulated) that cause others to suffer
Pedophilia	Sexual arousal from fantasies or behaviors involving sex with prepubescent children

Nontraditional sexual practices (medically called paraphilias, "para" meaning along the side and "philia" meaning "love" or emotional involvement in) generally involve fantasizing about or using objects, activities, or situations not considered sexually arousing by most others. Sometimes referred to as "deviant," "kinky," or "perverted," some of these practices may be harmless, whereas others may have serious social and legal consequences. Also, the practitioner's behavior may seriously affect nonconsenting others.

Notice that defining sex in terms of the experience makes no reference to any particular goal or outcome other than what is experienced. Sex is *not* defined by certain genital changes, such as erection of the penis, vaginal lubrication, or orgasm. Also, defining sex in terms of experience makes no reference to interaction with any particular person. Sexual experience can be brought about through self-stimulation (masturbation) and/or fantasy with someone of the same or the other sex. Sexual experiences may take place in a variety of social and emotional contexts (e.g., marriage, friendship, with strangers, with or without love).

Defining sex as an experience rather than a set of activities allows sexual partners to create a wide variety of experiences that they find erotically pleasing and allows them to define for themselves what they consider satisfying sex to be. This can lessen worries about whether they are “doing it right” and permits them simply to enjoy themselves.

Definitions of Sexuality

Sexuality consists of aspects of one’s personhood that are involved with sexual classification, sexual activity, and creating erotic experiences. Human sexuality has six dimensions.

1. *The physical dimension* consists of any regions of the body that contribute to sexual classification, sexual activities, and sexual experiences. These include the sexual organs, brain, nervous system, skin, body hair, body shape, and facial features that are considered attractive (or unattractive). The physical dimension also includes general physical health and well-being.
2. *The psychosocial dimension* includes one’s sexually related values, beliefs, attitudes, and emotions; one’s sexual identity, the sense of oneself as a sexual being; the gender identity, the sense of oneself as male or a female; the gender role, the personal and behavioral expectations of individuals of either sex set forth by their cultural group; and sexual orientation, the propensity to be sexually attracted to and feel most comfortable being emotionally close with someone of a particular biological sex.
3. *The reproductive dimension* consists of physiological and social processes that contribute to the conception and birth of children and their nurturance until they are capable of an independent life. This dimension also consists of efforts to alter and control by various means one’s reproductive capacity.
4. *The developmental dimension* consists of one’s personal sexual history, the physical, psychological, and social experiences (and self-interpretations of them) that change as one navigates the life course. Throughout life the physical sexual self changes, especially during fetal life when the body develops, and again at puberty when the child’s body changes to that of an adult. One’s beliefs about sex and sexuality also change throughout life, particularly with regard to the personal meanings of sexual activity and sexual experience.
5. *The erotic dimension* consists of feelings, images, and behaviors intended to create erotic experience, including sexual interest and desire, attracting a sexual partner, knowing how to satisfy sexually oneself and one’s sexual partner, being intimate, and maintaining a sexual relationship. This dimension also consists of physical and psychological difficulties related to creating erotic experiences.

sexuality aspects of one’s personhood that are involved with sexual classification, sexual activity, and creating erotic experiences

6. *The relationship dimension* consists of various kinds of interpersonal relationships in which sexual activity and experience occur. Such relationships might be between virtual strangers, friends, or marital partners. In most cultures, sexual activity and experience are considered rights and responsibilities of marital partners. In some cultures, sexual activity and experience are integral to interpersonal relationships characterized by feelings of love, intimacy, and emotional closeness.

The Scientific Study of Sex and Sexuality

How does the world we live in work? This is an important question, for knowing the answer can help individuals and communities live harmoniously within their physical and social environments. Also, *believing* one knows the answer can make one feel secure in a world that otherwise might seem overwhelmingly chaotic, incomprehensible, or threatening.

For most of human history, people have relied on religion, philosophy, myth, intuition, and their personal experiences to understand how the world works. Whereas these ways of knowing might make people feel secure, because they lack precision and predictability, they have caused debate and violence as often as they have created workable guidelines for living harmoniously.

scientific method a way to gain knowledge of the world utilizing observations, measurements, and experiments

Contrary to religion and philosophy, the **scientific method** is a way to gain knowledge of the world utilizing observations, measurements, and experiments. The scientific method can be applied to both animate (living) and inanimate (nonliving) things. It can be applied to the largest things (the universe) as well as the smallest (the subatomic particles of matter). The scientific method was first applied effectively to the study of the planets, the properties of physical matter, and the biological world. In the past 100 years, the scientific method has been applied to the study of human thought and behavior, including sex and sexuality. The scientific method incorporates the following elements:

1. *Unbiased observations.* Descriptions of how the world works are based on what is actually observed and not the observer's preconceived ideas, assumptions, and prejudices. Most important, the scientific method prohibits discarding valid observations because they are deemed inappropriate or undesirable. Observations can be made with the naked eye or with instruments that make visible small or distant objects. Observations can also be responses to questions posed to individuals about their beliefs, attitudes, and behaviors. One observation is called a *datum* (Latin meaning "what is given"); many observations are *data* (the plural of datum).
2. *Reproducibility.* Once a measurement or experiment has been described, anyone who repeats the experiment the same way should get the same result.
3. *Falsification of hypotheses.* An observer may propose a hypothesis to explain observations or the outcome of an experiment, and similar observations may support it. Additional findings suggest that the hypothesis accurately describes the real world. However, a hypothesis gains the most support from efforts to *disprove* it. Repeated attempts that fail to falsify a hypothesis make it more and more acceptable and, if it survives many kinds of challenges, it may become a scientific theory or law, such as Newton's Laws of Motion. Here's how an observation or hypothesis can be falsified: Suppose someone observes that all the roses in a garden are red. This leads to the

Dear Penelope . . .

Sex can be confusing, especially when it gets mixed up in personal relationships. What is a healthy sexual relationship?

— *Wants It to Be Good*

Dear Wants,

Yes, sex can be confusing. That's because it touches so many parts of a person's life and also because there are many influences on sexual attitudes and behavior (e.g., peers, media, religion), the messages of which often conflict. Rather than offer my definition of a healthy sexual relationship, I asked some American college students to offer theirs. They said a healthy sexual relationship consists of openness, trust, honesty, understanding, attraction, good sex, spontaneity, communication, mutual interest, responsibility, enjoyment, not fearing any aspect of sex, interest, respect, willingness to change, creativity, fun, loyalty, being disease-free, willingness to compromise, fidelity, caring, love, unselfishness, and knowing how to please the partner.

The students described an unhealthy sexual relationship in terms of lacking communication, sexual/relationship experience, cooperation, and trust, and consisting of guilt, physical dominance, one-sided gratification, dishonesty, spreading diseases to partner, cheating, jealousy (of friends and time alone/apart from partner), criticism, totally different interests, boredom, faking orgasm, too high/too low expectations, harmful practices, poor hygiene, and using the partner for sex.

Courtesy of the UC Davis Aggie

hypothesis that all roses in the world are red. When some white roses are discovered in a different garden, however, the original hypothesis about the universality of red roses must be discarded.

4. *Cause-and-effect relationships.* The ultimate goal of the scientific method is to explain an observation by identifying the reasons it occurred (causes). Furthermore, the relationships between causes and their effects must be predictable. Mathematical formulas are often used to describe **cause-and-effect relationships**. Because sexuality is so complex, a single cause of any observation is often not possible to discern. The best that can be achieved is to identify several possible causes and to try to determine how strongly each contributes to the observed effect.

cause-and-effect relationships predictable patterns and outcomes in scientific investigations

Sampling

When a scientific question calls for such an enormous number of observations that it is not feasible to make them all, a smaller, more manageable number of observations are made and it is *assumed* that the smaller number, called a **sample**, is an accurate representation of the total number of possible observations had they been made. For example, suppose you wanted to know the percentage of American college students who have sexual fantasies. You could try to ask all 16 million American college students, but that would be an enormous task. Instead, you could ask a few hundred students at several colleges (a "sample") and assume that they represent reasonably accurately the entire college population. This method is called **sampling**.

A variety of sophisticated techniques enable researchers to gather reliable data for very large numbers of people by studying relatively small samples. However, it is always possible that observations made on a sample do not accu-

sample a small number of observations assumed to represent accurately all possible similar observations
sampling making a small number of observations from a large group

sampling bias drawing conclusions from samples that do not accurately represent the larger group from which they are drawn

rately represent the entire group from which it is drawn. This error is called **sampling bias**. For example, in the determination of the extent of sexual fantasizing among all American college students, sampling bias might occur if only 19-year-old Asian American male students were queried. Obviously, a group of 19-year-old Asian American males does not represent younger or older Asian American males, males of other ethnic backgrounds, and women.

Human sex research is highly prone to sampling bias because many people will not divulge aspects of their sexuality to researchers. Thus, observations are made only on willing participants, and these observations may not be representative of everyone. Furthermore, much sexuality research is carried out on college students because many researchers are college professors, and students are readily available and generally willing (especially if extra course credit is offered) to participate in a study. However, college students may not represent people who do not go to college.

Before you accept as valid a report of any sex or sexuality research, find out how the observations were made and critically evaluate if those observations justify conclusions offered by the researchers. Be especially mindful of potential sampling bias with regard to age, gender, ethnicity and cultural influences, and sexual orientation.

Methods of Sex and Sexuality Research

Case Study

case study drawing scientific conclusions from the study of one or more individuals

In a **case study**, one or more individuals are observed and conclusions are drawn about them. Sometimes conclusions about “the case” are extended to the group which the “case” is a part of, even though others in the group are not observed.



The clinical case study is a method of sex research in which a health practitioner reports observations based on clinical encounters with clients.

Table 1.3 Sigmund Freud's Basic Concepts

Concept	Description
Unconscious Mind	Thought processes that take place out of conscious awareness
Defense Mechanisms	Mental processes used to cope with perceptions, misperceptions, and interpretations of reality and presumed dire consequences
Basic Psychic Structures: Id, Ego, and Superego	<i>Id</i> : Instinctual drives and impulses, including sex, aggression, and immediate satisfaction
	<i>Ego</i> : Conscious awareness, reasoning, harmony-seeking
	<i>Superego</i> : Parental and social rules designed to mold, direct, and contain the id
Libido	Instinctual sexual drive that can become fixed on various persons or objects for its release
Oedipus and Electra Complexes	<i>Oedipus</i> : fixation of a male child on the mother as a sexual object
	<i>Electra</i> : fixation of a female child on the father as a sexual object
Stages of Sexual Development	<i>Oral</i> : Libidinal pleasure from nursing (infant)
	<i>Anal</i> : Libidinal pleasure from bowel function (toddler)
	<i>Phallic</i> : Libidinal pleasure from manipulation of the genitals (child–adult)
Penis Envy	The realization of young girls that they do not have a penis, thus establishing development of female gender identity
Castration Anxiety	The realization of young boys that girls do not have a penis and the consequent fear of losing the penis for some misbehavior

Friends carry out case studies with each other all the time, although they don't call them that. They observe what a friend does ("she's seeing him again") or what a friend says ("I can't let him go") and draw conclusions ("she's dependent"). If they notice similar behaviors among similar individuals, they might draw a conclusion about the group ("most women are dependent").

Clinical Case Study

In a **clinical case study**, health practitioners report observations made of people who seek their help. Nearly all of Sigmund Freud's research was derived from clinical case studies. Freud listened to patients recount their experiences (sometimes the patients were hypnotized so they could recall memories that were otherwise blocked from consciousness) and drew conclusions about basic aspects of human psychology (Table 1.3). A problem with clinical case studies, of course, is that the observations are derived from people who are seeking help, and the observer often is their professional helper, so the observations and conclusions may be biased and also may not pertain to everyone.

clinical case study drawing scientific conclusions from observations made of one or more individuals who seek help for medical problems
laboratory observation study observations derived in laboratory settings rather than clinical or real-life ones

Laboratory Observation Study

In a **laboratory observation study**, observations are made in a laboratory setting rather than a real-life or clinical one. For example, to study the effects of alcohol consumption on sexual arousal, subjects' physiological reactions (e.g., heart and breathing rates, blood pressure, changes in pelvic blood flow) to watching sexually explicit films before and after consuming alcohol could be measured in a laboratory with a variety of scientific instruments. A major bias in this kind of study, of course, is the assumption that the people who are studied are capable of authentic sexual responses (intoxicated or not) while in a laboratory setting and are willing

to be observed by others after having imbibed alcohol and become sexually aroused.

naturalistic observation studying many people at one time in their natural setting

epidemiological study comparing two or more groups in their natural setting

ethnographic study observations of an entire community in which the observer lives for a period of time

Naturalistic Observation Study

Naturalistic observation is a case study approach in which many people are observed in a natural setting as opposed to a laboratory or clinical setting. For example, a graduate student in psychology might go to a party not to participate in the festivities but to observe and report on the effects of alcohol on the interactions of the guests.

Epidemiological Study

Epidemiological studies are naturalistic studies in which observations of people in different groups are compared, generally using sophisticated statistical methods. For example, the effects of taking a daily vitamin on the frequency of sexual activity could be studied by comparing the frequency of sexual activity of a group of vitamin takers with that of a matched group of non-vitamin takers.

Ethnographic Study

Ethnographic studies are naturalistic studies of an entire community in which the observer lives for an extended period of time. Between 1850 and 1930, ethnographic studies were carried out on hundreds of what were then referred to as “primitive” or “preliterate” cultures in every part of the world. Comparisons of the sexual behaviors and attitudes of these cultures were used to provide a



deeper understanding of sexuality than studies of American society alone could provide.

Survey Methods

In **survey methods**, the scientist is not the observer. Instead, the scientist asks others to report *their* observations, generally of their own thoughts, feelings, and experiences. Most often, surveys involve a standard set of questions to which people (“subjects”) respond. The questions can be administered in a face-to-face or telephone interview, or by a self-administered hard copy or online questionnaire. Observations obtained by survey methods can be unreliable. For example, some people might exaggerate or otherwise distort their observations. They may tell the researcher what they think the researcher wants to hear. An observation may be remembered inaccurately. Furthermore, many sex surveys conducted by television programs, Internet polls, and consumer magazines suffer from sampling bias because the observations are derived from the viewers and readers of those media, who are unlikely to be representative of everyone.

survey methods asking people to report their observations, generally of their own thoughts, feelings, attitudes, and behavior
experimental study scientific results derived from comparing a test or experimental group with a matched control group

Experimental Studies

In an **experimental study**, the results from at least two similar groups are compared: (1) the *experimental group*, which receives some kind of test, intervention, or treatment, and (2) the *control group*, which is similar to the experimental group but does not receive the test, intervention, or treatment. Observed differences between the two groups are assumed to be *only* from the test, intervention, or treatment. Experimental studies are the only valid way in which the safety and efficacy of medications are determined. An experimental group (or groups) receives a test drug, and a control group receives a placebo (“sugar pill”). In the 1990s, a large experimental study exposed some risk of taking hormonal drugs during and after menopause.

Interpreting Sexuality Research

To do their jobs well, professional educators, counselors, health practitioners, and researchers must be able to assess critically the findings and interpretations reported in sexuality research. They must judge the risk of sampling and other kinds of bias. They must carefully examine both the data that are reported and the statistical or other analytical tools that are used to interpret them. Finally, they must carefully and critically assess the interpretations and conclusions drawn by the researchers about their research, taking into account any source of funding for the research that might bias their conclusions.

Compared with professional educators, counselors, health professionals, and researchers, most individuals lack the specialized training to assess critically the findings from scientific sexuality research and the conclusions drawn from studies. In the best case, nonprofessionals can receive unbiased explanations of research from professionals they trust and whose goal is to enhance others’ health and well-being. Accurate and unbiased accounts of sexuality research can sometimes be found in the mass media (e.g., newspapers, magazines, television, Internet). However, because the primary goal of mass media is profit and not necessarily accurate and unbiased reporting, the media may skew presentations about

sexuality research to capture interest (and to sell products and services) rather than to enlighten and educate. With regard to information derived from sexuality research, keep in mind the following:

- What organization or individual is providing the information? What is the provider's stated or implied intention? Assessing the motives for providing information on the Internet is especially important because a Web site can be made to appear educational when, in fact, its goal is to influence attitudes and behaviors, including purchases.
- What is the information provider's training and expertise? Popular magazine articles often quote psychologists or sex counselors to support the article's thesis. Can you really be sure that the person being quoted is a reliable authority?
- What is the source of the data in the research? Is the information based on an observer's experience (a case study), a survey, or a study comparing a "treatment" group with a group of "matched controls" (epidemiological or experimental study)?
- Who benefits? What benefits might the source of the information be receiving for communicating it?

You want to avoid being manipulated by bias presented in the guise of scientific truth.

Occasionally, a study's results are described as *statistically significant*, which means that an observation, or a comparison of observations, is highly likely not to be the result of mistakes made by researchers or to have occurred by chance. For example, suppose researchers report the statistically significant finding that the number of sexual partners among unmarried members of a particular group is two per year. It might be that the actual annual number of sexual partners in this group is zero, one, two, three, or more. Findings are statistically significant if a mathematical analysis of the data show a very small—or *insignificant*—chance that the actual number of partners is *not* two. However, this does not mean that the actual number of partners is always two. It means only that there is a small chance that the findings from this analysis are wrong. Scientists are generally willing to accept a finding if the chance it is wrong is less than 1 in 20 (reported as $p < 0.05$).

In some situations, a result is statistically significant but otherwise not very meaningful. For example, one research study might show that the risk of unintended pregnancy for a new birth control method is 3.0 per 100 female users per year, and another study might show it to be 2.9 per 100 female users per year. Even if the difference in efficacy is statistically significant, it is not very meaningful because the difference is negligible.

Comparing Yourself with Research Findings

Because people are concerned about their sexual desirability and/or sexual abilities, many compare themselves with results of scientific sexuality research, thinking that the results measure what is normal, good, and desirable. This is a mistake because normal, good, and desirable are socially, not scientifically, defined. Remember that scientific research reports *what is* and not what should be, although research can report what people *think* should be, and in that sense set a norm for people in a particular group.

Two common errors in interpreting scientific research are to equate (1) "average" with "good/normal" and (2) "infrequent" (sometimes referred to as *atypical*)



HEALTHY SEXUALITY

Tips for Enhancing Sexual Experience

- Create pleasure by stimulating the whole body, not just the genitals.
- Vary the manner and intensity of stimulation. Allow sensations to build and wane.
- Try not to make sex = work.
- Set aside time that is free of intrusions and distractions. Disconnect the phone; lock the door to ensure privacy.
- Make yourself an open, effective channel for sexual arousal before sexual activity begins. Satisfying sex is not a mechanical activity involving only bodies, but a blending of mind–body energies. Remove sex-negative energies such as hunger, fatigue, and anger, and focus your energy on sex through deep breathing or other relaxing activity.
- Be aware of differences between you and your partner in the state of readiness for sexual activity. Try to synchronize both partners' states of sexual arousal through talking, light touching, dance, massage, and so on, before sexual activity begins.
- Address concerns about birth control and sexually transmitted diseases prior to sexual experience.
- Take your time. Go slowly.
- Communicate likes and dislikes to your partner either verbally or nonverbally.
- Do not focus just on orgasms. Learn to appreciate the many sexual sensations from touching all parts of the body.
- Either partner may reach orgasm through manual, oral, or other means of stimulation before or after intercourse.
- Sexual activity need not stop after one partner reaches orgasm. If a couple chooses, lovemaking can continue until both wish to stop.
- It is possible that neither individual may desire an orgasm during a particular sexual episode. Physically expressing love and caring does not require orgasm.

with “bad/deviant.” In each case, a scientific term (e.g., average, infrequent) is mistakenly used as a social term (e.g., normal, deviant). For example, the average height of American men is 5 feet 8 inches. Obviously, we do not consider men who are 5 feet 8 inches tall normal and men of different heights abnormal or socially deviant.

Although averages are generally reported in sexuality research, it is a mistake for individuals to use them as standards of normal for their own thoughts, feelings, and behaviors. Such standards reflect the values and norms of social groups, and they vary from group to group and from time to time in the same group. Also, it is vital to realize that human sexual behaviors vary enormously, and some individuals' sexual attitudes and behaviors may fall outside of their group's definition of “normal.” Unless these behaviors are harmful to the participant(s) or others, as in instances of sexual assault or child sexual abuse, to label them as “abnormal” is often more a matter of opinion than scientific fact.

SEXUALITY IN REVIEW

- Human sexuality is studied to develop healthy, constructive, responsible, and positive attitudes about ourselves and others as sexual beings; to undertake the role of sex educators of our children; and to increase our capacity for creating and experiencing sexual pleasure and sexual intimacy.
- Sex is defined as one's classification as a biological male or female, as activities personally or socially defined as sex, and as specific experiences, such as erotic pleasure and sexual intimacy.
- Sexuality has six dimensions: physical, psychological, reproductive, developmental, erotic, and relationship.
- Sexuality is studied scientifically using observational, survey, and experimental methods.
- Human sexual behaviors vary enormously from person to person and from group to group.

CRITICAL THINKING ABOUT SEXUALITY

1. This chapter has presented three definitions of *sex*. What is your personal definition of sex? In what ways has your definition of sex changed as you've become older?
2. List five criteria for a healthy sexual relationship and explain the reasons for your choices.
3. Sexual images are prevalent in consumer advertisements. Find three examples of advertisements that used sexual imagery to sell a product or an idea. For each example:
 - Identify the source.
 - Identify the intended audience.
 - Describe the sex-related imagery and its relationship to the advertiser's intention. Is the ad effective?
 - Describe the sex-related messages and values that are communicated in the ad.
 - Offer your opinion of the ad.
4. A reputable news source reports that scientists at a leading university have discovered a brain chemical that is responsible for creating feelings of sexual pleasure. The report also states that a pharmaceutical company is interested in developing a drug based on the scientists' discovery. Using criteria presented in this chapter regarding evaluating media reports of sexuality research, what information would you require to evaluate the validity of this scientific finding?

REFERENCES AND RECOMMENDED RESOURCES

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Recommended Resources

- Ford, C. S., & Beach, F. A. (1952). *Patterns of sexual behavior*. New York: Harper. This text is a classic reference based on ethnographic research comparing sexual attitudes and behaviors among 192 human cultures.

- Go Ask Alice. <http://www.goaskalice.columbia.edu>. This health—including sexual and relationship health—question-and-answer Internet resource is produced at Columbia University.
- Haavio-Mannila, E., et al. (2002). *Sexual lifestyles in the twentieth century*. London: Palgrave Macmillan. This text is an exploration of the evolution of sexual behavior and relationships during the twentieth century.
- Mayo Clinic. <http://www.mayoclinic.com>. The authoritative medical institution offers information on a variety of sexuality topics (use the search tool).
- MedlinePlus. Female reproductive system. <http://www.nlm.nih.gov/medlineplus/femalereproductivesystem.html>. Information for females.
- MedlinePlus. Male reproductive system. <http://www.nlm.nih.gov/medlineplus/malereproductivesystem.html>. Information for males.
- Stearns, P. N. (2009). *Sexuality in world history*. London: Routledge. This book examines sexuality in the past and explores how it helps explain sexuality in the present. The subject of sexuality is often a controversial one, and exploring it through a world history perspective emphasizes the extent to which societies, including our own, are still reacting to historical change through contemporary sexual behaviors, values, and debates.