

## Human sexuality

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### Abstract

Human sexuality is a complex phenomenon involving the interaction of one's biologic sex, core gender identity, and gender role behavior. Successful completion of normal stages of sexuality development is important for children and adolescents to allow for optimal life as an adult. Controversies arise for clinicians as they work with their pediatric patients regarding health care sexuality issues. It is important that clinicians help these patients in an unbiased and neutral manner. As adults, these children and adolescents will function in a number of sexuality roles, whether heterosexual, homosexual, or bisexual. This paper reviews many of these complex and critical issues that involve the fascinating development of human sexuality in pediatric patients.

**Keywords:** Childhood, adolescence, sexuality, human sexuality

Sexuality education is the knowledge that we are all sexual human beings, that our sexuality is part of our lives and can be an enhancement or enrichment of our total personality.

(Mary Calderone, MD, 1904-1998)

### Introduction

Human sexuality is a complex phenomenon involving the interaction of one's a) biologic sex, b) core gender identity (sense of maleness and femaleness), c) gender role behavior (nonsexual as well as sexual), which d) combine with our values, attitudes, feelings, interactions, and behaviors to impact the manner in which an individual expresses his or her sexuality (i.e., emotional, social, cultural, and physical (1-4). An individual's sexuality continues to develop from conception through adulthood, until death. During infancy the typically developing youth learns to experience basic sensations in their bodies which are focused on the senses (touch, smell, taste,

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temperature, sight, smell). They learn pleasure, discomfort, and satiation through these senses and interactions with care givers and the environment. As they mature these youth are constantly learning about the social norms regarding their sexuality; they learn what is expected or appropriate in their interactions and relationships with parents, siblings, cousins, and others in their environment. The healthy sexual development of infants, children, and adolescents determines how they proceed with other stages of sexual development.

## Psychosexual development

Sexuality begins at birth or even at conception. At age 8-10 months, infants become aware of their genitalia (penis or vagina) and by the age of three, they usually have developed a fixed gender identify. By the time of their fourth birthday, they perceive themselves as being either boys or girls for life. Many scholars have used the work of Freud to understand sexual behaviors designed for adults to describe the sexual development of infants, children, and adolescents (3, 5). This view is currently conflictual, because it does not address what we know about early youth development.

Most child specialists agree that youth who have not been exposed to sexual trauma, assault, or abuse by late adolescence are expected to have developed a good self-image, a sense of security, a willingness to trust others, and knowledge of what is right or wrong in his or her family, community, and society. Most societies agree that parents must first accept their children's gender, and, then, communicate to them that they are intact, beautiful, and well-formed. If this is not the case, major problems in adolescence and adulthood may unfold.

A review of normal childhood behavior reveals that physiologic components to sexuality are evident at an early age (see appendix A and B). During the first year of life (*infancy*), exploration is through mouthing, sucking, and touching while trust in the caretaker develops. Infants learn to be sexual by touching and being touched; they learn from how they are held, soothed, or nurtured; this impacts their emerging sexuality and sets the stage for their sexuality throughout life.

Sexual exploration may involve the skin as a source of warmth and food (the mother's), or the infant's own skin as an erotic organ and some genital touching. Male erections are noted even *in utero*; orgasm as a neurophysiological phenomenon can occur as early as the fourth month of life and is common in males 6 to 8 years of age (2,5-8). Parents should be encouraged to view infant male erections not as sexual but as normal physiological responses as the infant matures. Female newborns often have leukorrhea or vaginal discharge as a result of maternal hormones. Parents should be encouraged to ask questions of clinicians when they observe behaviors or bodily functions they do not readily understand.

During the *toddler* period (ages 2-3 years) children develop mobility, and language skills; the process of autonomy is noted and parents learn to deal with the word "no!" The toddler also learns what boys and girls do, how sex roles are different, and the names of body parts. Masturbation or self-genital manipulation for pleasure is very common between ages 2-6 years. During this period of development children become increasingly aware of the differences in males versus females. Their exploration is labeled as sex play but is simply a part of how humans learn (experimentation and exhibitionism) (3).

Sexual exploration is a common behavior for most children by the age of 13 years (e.g., self-exploration, involving other children: looking at or touching bodies of another child with or without clothing; simulating intercourse with another child, is less common; inserting an object in the vagina or rectum of another child or engaging in oral-genital contact is rare). Unless these children have been exposed to pornography or sexually abused, the motivation for their behavior is curiosity. Parents should provide visual and auditory supervision at all times for young children through early adolescence; this limits the nature and extent of behaviors related to sexual curiosity (see Table 1) (9).

Sexual curiosity is a part of normal developmental phenomena, and parental attitudes are a major influence on attitudes that children develop about sexual behavior and feelings. As noted by Mary Calderone (1904-1998):

Whatever happens, it is clear that by the time the child arrives at school, it has already received, for good or ill, the most profound as well as the most unchangeable sex education it will ever receive in its life.

If a parent finds a 4 year old masturbating and aggressively reacts to inform the child it is “unclean”

and not “respectable”, the child clearly learns to associate normal sexuality with negativism – a lesson carried throughout his/her life. If the natural curiosity of the latency age child is totally repressed, the child receives the wrong message about human sexuality (see appendix A).

**Table 1. Distinguishing sexual exploitation from experimentation**

<p><b>1. What is the age difference between the participants?</b> If the children are not peers in terms of age or cognitive level, exploitation is likely.</p> <p><b>2. Is the activity consistent with the developmental level of the participants?</b> Pre-pubertal exploratory behavior typically involves mutual genital display, touching, and fondling; intercourse or attempted intercourse is atypical among preschoolers and is rare in the young school aged child (6-9 years).</p> <p><b>3. What is the motivation of the participants?</b> Young children are motivated to exploratory behavior by curiosity about differences and similarities in anatomy and pleasurable feelings associated with masturbation. The older child adds interest in sexual roles and sexual identity to the curiosity and pleasure motivations. Participants who are not mutually motivated by these factors may be involved in exploitative sexual contact.</p> <p><b>4. Is the activity consensual or coercive?</b> Mutual consent is typical of exploratory behaviors. Abusive behavior often involves elements of pressure, misrepresentation, force, threat, secrecy, or other forms of coercion. Although some of the threat or coercion is obvious and violent, the evaluator must take care to recognize subtle emotional pressure or the use of implied authority by an older child or adolescent in some cases.</p> <p><b>5. Is there an outside influence involved?</b> Two children or adolescents may be involved in age-appropriate exploratory behavior, but if the contact has been arranged for the pleasure of another older individual, it is exploitative.</p> <p><b>6. What is the response of the child to the contact?</b> Mutual exploratory behavior may engender some guilt feelings in children; however, feelings of anger, fear, sadness, or other strongly negative responses are unusual. Exploitation is more often viewed in negative terms by the child; however, some abused children will appear to have a neutral or positive emotional response to abuse. The victim’s denial may mask the negative responses in some cases, or the child’s emotional needs for positive aspects of the relationship may outweigh the negative aspects of the sexual abuse.</p>
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As the grade school child transitions into adolescence, their interests and actions regarding their sexuality expands. The manner in which the adolescent deals with his/her sexuality is far more influenced by what he/she experienced as a child at home, viewing and interacting with parents, than from what they may learn during adolescence (8-10).

*Adolescence* is the critical period of physical, psychosocial, as well as cognitive growth, leading

from childhood to maturation and adult life. *Puberty* is the word used to describe the physical-somatic changes of adolescence. During the adolescent years, the individual must develop a healthy self-esteem and also sexual comfort---learning to deal with those in his/her “sexual” universe. Adolescent sexual development is important for the process of identity formation and the establishment of mutually

satisfying friendships, romantic, and social relationships among peers.

### Attitudes and sexuality: masturbation

An historical view of masturbation shows that for centuries, this persistent aspect of sexuality was condemned as sinful and/or harmful to human health. During the early part of the 20<sup>th</sup> Century, authors stressed that masturbation as such may not be harmful, but guilt over such worry certainly can be injurious to mental health. By the middle of the 20<sup>th</sup> century, many physicians accepted this concept and numerous researchers began to study masturbation as a very common aspect of normal human sexuality. It was noticed that genital self-stimulation for pleasure is practiced by most adults in some manner or other without deleterious effects on human physiology (8, 11).

Current teaching among academic medical, pediatric or psychological groups is that masturbation is not harmful by itself and can be useful as part of a therapeutic approach to correct various sexual dysfunctions. However, “excessive” masturbation in infants may result from such problems as pinworm infestation, diaper dermatitis, tight clothes, non-specific genital pruritus, phimosis and other medical conditions. Certain masturbation variations can be harmful; an example is the adolescent *sexual asphyxia syndrome* – in which the young person attempts to partially hang himself/herself by the neck (“partial hanging”) while masturbating in order to achieve an orgasm. Peer and “peer” journals may advise youth about masturbation and encourage them to masturbate in order to relieve sexual tension.

Parents may continue to worry about the “perceived” effects of masturbation on their children.

Thus, anxiety about masturbation and other important aspects of human sexuality remains today, especially because comprehensive sex education is rarely allowed for children and youth in the United States (7-9). Parents often do not realize that they have the greatest influence on the sexual decision making of their youth. It is essential that parents acquire a broad knowledge of human sexuality, which is consistent with their own moral philosophy and culture, and then share that information with their offspring. Young children often reflect parental attitudes, ignorance, and uneasiness about sexuality with resultant negative effects. Health care professionals can assist in enlightening and encouraging parents to help their children develop healthy sexual attitudes, beliefs, and behaviors, as they interact with children and youth.

### Puberty

The hallmark of adolescence is the process of puberty (see Table 2), a very significant neurobiological event that has profound effects on the growth and development of the each child, preparing the way through the developmental stage of adolescence and eventual adulthood (9). The exact trigger for puberty is not yet clear, but it involves central nervous system (CNS) maturation with reduced hypothalamic sensitivity to gonadal steroids by changes in the GnRH pulse generator; there is also adrenal gland maturation (3, 7-10). The progression (see Table 3) through puberty is predictable, but there is considerable variation in its onset, timing, tempo, and magnitude of changes (see table 4). There are 5 stages of pubertal development due to hypothalamic-pituitary-gonadal maturation, called *Sexually Maturity Ratings* (SMR) or *Tanner Stages* (see Tables 5 and 6).

**Table 2. Major physical changes of puberty**

Major increase in genital system (primary and secondary sex characteristics)
Gaining of 25% of final height (distal growth, e.g., of feet, may precede that of proximal parts, e.g., the tibia, by 3 to 4 months)
Doubling of lean and non-lean body mass (gaining by 50% of the ideal body weight)
Doubling of the weight of the major organs
Central nervous system maturation (without increase in size)
Maturation of facial bones
Marked decrease in lymphoid tissue

**Table 3. The sequential changes of puberty**

<b>Adolescent Female <sup>a</sup></b>
Breast bud (thelarche)
Pubic hair development (pubarche)
Height velocity peak
Menarche (onset of menstruation)
Axillary hair
Final pubertal changes, e.g., full breast, pubic hair, and completed height development
<b>Adolescent Male <sup>a</sup></b>
Early testicular growth
Pubarche
Testicular and penile growth
Nocturnal emissions
Height velocity peak
Marked voice changes
Facial hair growth and final pubertal changes, e.g., full genital, height, and muscle development

<sup>a</sup>Normally over a 2 to 4 year period.

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**Table 4. Variations in pubertal changes**

Pubertal Changes	Age Range of Appearance (yrs)
Thelarche	8-14.8
Pubarche	9-14
Menarche	10-17
Testicular Enlargement	9-14.8
Peak Height Velocity (Male)	10-16.6
Peak Height Velocity (Female)	10-14
Adult Breast Stage (V)	12-19
Adult Genitalia (Male V)	13-18

Eventually there is a rise in gonadotropins (Follicle Stimulating Hormone [FSH], Luteinizing Hormone [LH]), sex hormones (i.e., estrogen, testosterone), adrenal gland steroids, growth hormone, insulin-like growth factors (IGFs or somatomedins) and other hormones. *Thelarche* (breast budding or SMR 2) is the first clinical evidence of puberty in females, developing between 6 and 14 years of age, typically between 11 and 12 years of age; *menarche*

(onset of menstruation) usually follows in 1 to 3 years in SMR 4, often between 12 and 13 years of age (range of 10 -17 years) (9). The first clinical event of puberty (SMR 2) in the male is enlarged testicles (over 3 mL or 2.5 cm in diameter) and scrotal thinning; ejaculation is seen at SMR 3 and fertility at SMR 4 (9-18).

The growth spurt results in the final 25% of the adult height and is an *early* pubertal event in females

(SMR 2) often at age 11.5 years and a *late* pubertal event in males (SMR-4), typically at age 13.5 years of age; the average growth spurt lasts 24 to 36 months. Those who have early (precocious) or late (delayed) puberty can have considerable psychosocial

consequences (8, 9). For example, the female and male who develop much earlier than peers, may be subjected to sexual behavior (including harassment or abuse) much earlier than peers who develop puberty at an expected chronological period.

**Table 5. Sexual maturity rating or Tanner staging in females**

Stage	Breasts	Pubic Hair	Range
I	None	None	Birth to 15 yr
II	Breast bud (thelarche): areolar hyperplasia with small amount of breast tissue	Long downy pubic hair near the labia; may occur with breast budding or several weeks to months later (pubarche)	8 ½ to 15 yr (some use 8.0 yr)
III <sup>b</sup>	Further enlargement of breast tissue and areola	Increase in amount of hair with more pigmentation	10 to 15 yr
IV <sup>c</sup>	Double contour form: areola and nipple form secondary mound on top of breast tissue	Adult type but not distribution	10 to 17 yr
V <sup>d</sup>	Larger breast with single contour form	Adult distribution	12 ½ to 18 yr

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<sup>a</sup> Peak height velocity often occurs soon after stage II.

<sup>b</sup> 25% develop menarche in late III.

<sup>c</sup> Most develop menarche in stage IV 1 to 3 yr after thelarche.

<sup>d</sup> 10% develop menarche in stage V.

**Table 6. Sexual maturity rating or Tanner staging in males**

Stage	Testes	Penis	Pubic Hair	Range
I	No change, testes 2.5 cm or less	Prepubertal	None	Birth to 15 yr
II	Enlargement of testes, increased stippling and pigmentation of scrotal sac	Minimal or no enlargement	Long downy hair often occurring several months after testicular growth; variable pattern noted with pubarche	10 to 15 yr
III <sup>a</sup>	Further enlargement	Significant penile enlargement, especially in length	Increase in amount, now curling	10 ½ to 16 ½ yr
IV <sup>b</sup>	Further enlargement	Further enlargement, especially in diameter	Adult type but not distribution	Variable; 12 to 17 yr
V <sup>c</sup>	Adult size	Adult size	Adult distribution (medial aspects of thighs, linea alba)	13 to 18 yr

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<sup>a</sup> Peak height spurt usually between III and IV.

<sup>b</sup> Axillary hair develops, as well as some facial hair.

<sup>c</sup> 20% have peak height velocity now. Body hair and increase in musculature, etc., continues for several months to years.

Puberty stimulates more interest in sexual behavior and emotions in the growing and rapidly changing adolescent. Some youth may experience

crushes on non-parent figures; this is common in both sexes, and includes interest in teachers, youth leaders, coaches, and others. If adults misinterpret these

“crushes,” sexual abuse results with severe negative consequences for this adolescent. The influence of parents’ reactions to these changes and that of the family’s religious teaching have profound effects on how adolescents deal with these emerging concepts of human sexuality (9-18).

Young teen males may be concerned about spontaneous erections, nocturnal emissions, and same-sex sexual thoughts and experimentations (10, 18). Males may also be concerned about the development of *gynecomastia*, or the usually transient development of breasts noted in as many as two-thirds of SMR 2-3 males. Though usually resolved in 12 to 18 months, gynecomastia may cause confusion about male identity and intense anxiety while undressing in front of peers in physical education *classes*. Reassurance from the trusted clinician about the benign nature of this phenomenon is very helpful to these males, though temporary release from situations of being undressed in front of peers may be necessary; surgery is also necessary in some situations of persistent gynecomastia, large breasts, or severe psychosocial stress. Education about important aspects of puberty is an important and needed task for primary care clinicians.

Females may be worried about vaginal discharge (estrogen-stimulated “physiologic leukorrhea”), nocturnal sexually-oriented sex dreams, same sex interests (including sexual experimentation); females also worry about breast development (delayed onset and size); they worry if they have not developed breasts when their peers develop them; they worry if they develop breasts larger than their peers (7-10). Females who develop large and heavy breasts may experience back pain and be subject to harassment and abuse by peers and others. The onset of puberty begins the battle with the effects of acne vulgaris, body odor, seborrheic dermatitis, and other dermatologic effects of puberty which may cause both males and females to be concerned.

## Normal adolescent psychosexual development

Adolescent psychosocial and cognitive development is typically divided in three classic periods: *Early*, *middle*, and *late adolescence* (see appendix B) (7-19).

The *young* adolescent resumes previously acquired interest in the development of interpersonal relationships. Typically, the youth approaches this from a narcissistic viewpoint in which the individual’s interest comes first and concerns of others are not considered. This “selfish” attitude starts with those of the same sex and extends to those of the opposite sex during mid-adolescence. First, there is exploration of one’s own body linked with concerns of normality; then comes the comparison with peers of the same gender. Interest towards the opposite sex finally occurs; it is basically platonic for early adolescents and it is gradually expressed through sexual experimentation during middle adolescence.

Considerable energy is spent acquiring social skills and friendships with same-sex individuals. Thus, boys tend to develop “gangs” of males who engage in various behaviors, as each member tests the others in diverse aspects of adolescence. Definitions of masculinity are tested and confirmed within such groups. Homosexual experimentation and considerable false braggadocio about sexuality are quite common.

Girls tend to associate with a few very close girlfriends and then, to a lesser extent, deal with a larger group of females. The extent of female masturbation and homosexual experiences is unknown, but is probably less than that reported in males. This early adolescent phase of development is often referred to as the homosexual phase and is considered normal.

*Middle* adolescence is typically called the *heterosexual* stage, as youth acquire diverse experiences with the opposite sex; these experiences can be quite short (even one or two days) and intensive (see appendix B). Adolescents in this stage of cognitive and emotional development have limited abstract thinking and perspective taking ability and empathy for others. They are often viewed as “selfish”; this is normal for these youth. They often have idealized views of relationships and may engage in serial monogamy because they are unable to think about long range outcomes of current behavior. During middle adolescence, depending on the youth’s self-image, opportunity, and parental influence, there is a normal sequencing of this heterosexual development. It begins with interest in the opposite gender, same gender, or both and is followed by

group dating, individual dating, and eventually sexual intimacy. Such intimacy runs an individual course including hand-holding, superficial versus “serious” kissing, petting, oral sex, anal sex, and/or vaginal coitus.

Late adolescence is a time when parents and clinicians must attend to issues of helping youth develop the ability of having functional non-selfish relationships, emancipation, sexuality, sexually transmitted diseases, pregnancy, and grand parenting. Clinicians, parents, and caregivers must begin to address these issues and prepare these youth for coping with the risks and rewards of living to adulthood. In the US most people believe that late adolescence is normally the time to begin consideration of available adult lifestyles (see Table 10) (6-9, 18-23).

## Sexual behavior among youth

By 2009, over 66% of adolescents said that by age 18 years they had engaged in vaginal or oral-genital sexual activity, 20% of adolescents said that they did not engage in any form of sexual behaviors. The 2013 Centers for Disease Control and Prevention Youth Risk Behavioral Surveillance (YRBS) noted that 46.8% of high school students had ever had sexual intercourse, 34% had sexual intercourse during the 3 months prior to this survey, and 15% had sexual intercourse with four or more persons during their life (12, 25).

Adolescents who were sexually active reported that about 50% had engaged in both types; 10% said they had engaged in anal intercourse; the report noted that 47% of high school students (12-18 years of age) and 46.8% of high school students (9th – 12th grades) were coitally experienced; only 34% were active at the time of the survey but only 59.1% of those youth used a condom (4, 6, 7, 9, 17, 24-27). African-American students (71.2%) reported the highest rates of coital experience, followed by Hispanic (54.1%), and Caucasian (45.1%) students. Forty-one percent of sexually active adolescents reported that they had two to three sex partners, 15% had four or five partners, practiced serial monogamy (having one partner at a time, though often for a short time); 41% used no condom; 81% used no birth control to prevent

pregnancy; 22% drank alcohol or used drugs before sexual intercourse. In the 2013 YRBS 59.1% had used a condom during their last sexual intercourse (25). Only 5.6% of these students reported being coitally active before age 13 (12.2% for males, 4.4% for females).

### *Oral sex*

Some youth engage in oral sex either before engaging in sexual intercourse or as a substitute for intercourse (26, 27). One possible reason for this change stems from the heavy emphasis that has been placed in all forms of sex education and literature upon “safer sex.” Another reason for this increase in oral sex may be linked to the return of concerns among girls and young women about maintaining their virginity. Some argue that oral sex prevents pregnancy but not STDs, controversy exists over whether oral sex is “really sex.” This allows some to say they engage in “abstinence” so still remain a virgin. Some females contend that they are in control since it is something that they can do to boys. Some researchers offer that girls who provide fellatio may do so because of peer pressure in pursuit of an elusive social status and popularity. There is little to be gained from an abstract contest between empowerment and exploitation since normative assessment is only possible in the light of the contextual circumstances of specific sexual encounters. Overall data on oral sex in a Midwestern rural population and found that 29% of the students in the 6<sup>th</sup>-12<sup>th</sup> grades (mean age of 14.7), had engaged in oral sex (with 9% of middle school and 44% of high school students). Over half of these subjects were male (51%) and Caucasian (85%) (16).

### *Oral-genital, vaginal, and anal intercourse*

In a study of the prevalence and relative timing of oral-genital, vaginal, and anal intercourse during adolescence reported that 20% of adolescents said that by age 18 years they had not engage in any oral-genital, vaginal, and anal intercourse sexual behaviors (26, 27). More than two-thirds reported vaginal or oral-genital sexual activity, but only about half experienced both; 10% reported anal intercourse; 33%

initiated 2 or more behaviors within a 1-year period. Vaginal intercourse was more often initiated prior to oral-genital or anal intercourse. Physicians must ask adolescents about the forms of sexual experiences and provide comprehensive information about sexual health (25, 27).

### *Adolescent pregnancy*

Data available from the 2010 National Vital Statistics System (NVSS) reported that adolescents in age groups 10–14, 15–17 years (17.3 per 1,000), and 18–19 (58.3 per 1,000) years had the lowest birth rate in the United States (34.3 per 1,000) since 1950 (28, 29). In spite of these declines, the US teen birth rate remains one of the highest among other industrialized countries. The 2010 total of births to teenagers was 43 percent lower than the peak recorded in 1970 (644,708). The declines were across all ethnic groups: Non-Hispanic whites (23.5 per 1,000), Non-Hispanic blacks (51.5 per 1,000), Hispanics (55.7 per 1,000), American Indians or Alaska Natives (38.7 per 1,000) and Asian or Pacific Islanders (10.9 per 1,000). Despite these declines across all adolescents in the United States, childbearing by teenagers continues to be a matter of public concern because of the elevated health risks for teen mothers and their infants. In addition, significant public costs are associated with teen childbearing, estimated at \$10.9 billion annually. Differences in rates of pregnancy tended to be highest in the South and Southwest and lowest in the Northeast and Upper Midwest, a pattern that has persisted for many years.

Strong pregnancy prevention messages directed to adolescents increased use of contraception at first initiation of sex and use of dual methods of contraception (that is, condoms and hormonal methods) among sexually active female and male teenagers may have also contributed to birth rate declines. Recently released data from the National Survey of Family Growth, conducted by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS), have shown the recent birth rate declines (28).

### *Sexually transmitted infections*

In 2009, 6.7% of the estimated 1.1 million persons living with human immunodeficiency virus (HIV) infection in the United States were youths aged 13–24 years; 59.5% of those infected with HIV were unaware of their infection (23-31). Youth accounted for 12,200 (25.7%) new HIV infections in 2010. Of these, 57.4% blacks/African Americans, 19.6% Hispanics/Latinos, and 19.5% among whites. About 72.1% were attributed to male-to-male sexual contact. However only 12.9% among high school students and 34.5% among those aged 18–24 years; were ever tested. Fewer males than females of infected youth were ever tested and fewer whites and Hispanics/Latinos than blacks/African Americans were tested. A disproportionate number of new HIV infections occurs among youths, especially blacks/African Americans, Hispanics/Latinos, and men who have sex with men (MSM). Black/African American youths and young MSM (males have sex with males) are at the highest risk for infection even with similar levels of risk behaviors.

Young people in the United States remain at risk for HIV infection. An estimated 56,300 Americans are infected with HIV each year (1). Of these, 34%—or approximately 19,000—are adolescents or young adults aged 13–29 years. Young men who have sex with men (YMSM), especially black YMSM, are at highest risk (32). This data highlights the ongoing risk for HIV infection among YMSM and underscores the need to reach each new generation with effective HIV prevention messages and services (31-33). Schools and education agencies are important partners in this effort.

Among adolescent males aged 13–19 years, approximately 91% of all diagnosed HIV infections are from male-to-male sexual contact. In 2009, 73% of all diagnosed HIV infections in youth aged 13–19 years were among black youth, even though blacks represented only 17% of the population in that age group versus white YMSM (18%) and Hispanic/Latino YMSM (16%) adolescents (32).

Young women are at risk for HIV, other sexually transmitted infections (STIs), and unintended pregnancy; they often do not seek sufficient health care and their infections often go unrecognized. YWSW have complex health care needs and should

be encouraged to protect themselves. They often do not seek routine gynaecological care. Several studies of YWSW, WSW, and bisexual women conclude that these 17-30% of these women are at risk for STIs.

Sexually experienced girls who have sex with girls or women consistently engage in riskier behaviors than did other girls. Lesbian girls' reports of risky sexual behaviors (e.g., sex under the influence of drugs or alcohol) and negative reproductive health outcomes (e.g., pregnancy) were similar to those of bisexual girls (6, 20, 29).

## Factors that impede normal sexuality development

In the 21<sup>st</sup> century, pediatric sexuality develops in a society characterized by a rapidly changing environment, intense migration, and expanding opportunities to communicate with others in a modern global network that has become a widely-used resource for sexual health information among adolescents around the world. Major problems for childhood and adolescent sexuality that are emerging in today's global society include a change in the concept that heterosexual relationship is the norm, the development of casual relationships, and changes in what is termed the love ideology.

Widespread concerns about adolescents' exposure to sexually explicit images sent by smartphone or internet — commonly known as “sexting” — appear to be based on exaggerated reports (6). Less than 10% of youth in a national survey of minors aged 10-17 years had received and only about 2 percent had appeared in or created such images (6). Females were more likely to create or appear in the nude or nearly nude pictures or videos, and over half of such images were generated between senders and recipients as part of a romantic relationship.

There is a noticeable cultural difference in the acceptance of and breadth of the casual relationships in youth. Examples of visible changes in the love ideology among young people throughout the world include the increase in the number of sexual partners, a rise in casual sex episodes, more openness admission of and acceptance to group sex relationships, and open discussion among youth as well as the increased popularity of such relationships

as a sex buddy (f\*\*\* buddy or FB), friends with benefits (FWB), and sexualized friendships.

Youth exposure and access to mass media has an enormous influence on children and adolescents around the world in which sex is often presented as a casual pastime that is normative behaviour without negative consequences. The media (television, movies) presents the message that “everyone is doing it and having fun.” Some youth view oral sex as not “real sex” and use it to maintain a state of “technical” virginity, not realizing that sexually transmitted diseases are also acquired with this form of sexual behaviour including chlamydia, gonorrhoea, syphilis, trichomoniasis, hepatitis B, herpes, human papillomavirus infection (HPV), and human immunodeficiency virus (HIV) (30,31).

Youth who do not experience typical development may experience psychological and psychosexual problems. The developmental tasks for the young help them to refine skills developed during adolescence which enhanced their transition into adult roles; those who simultaneously experienced chronic illness and disability may not have had the opportunity to accomplish developmental milestones (see appendix B).

## Sexual abuse

An overview of healthy childhood sexual development promotes an understanding that healthy childhood sexual development plays a key role in child sexual abuse prevention (34-38). Many adults are never taught what to expect as children develop sexually, which can make it hard to tell the difference between healthy and unhealthy behaviors. When adults understand the difference between healthy and unhealthy behaviors, they are better able to support healthy attitudes and behaviors and react to teachable moments. Rather than interpret a child's actions with an adult perspective of sex and sexuality, adults can promote healthy development when they understand what behaviors are developmentally expected at different stages of childhood.

Although most data on sexual abuse is focused on females, recent research is acknowledging that males are also sexually abused (see chapter 35). Worldwide prevalence of child sexual abuse in 21 different

countries was found to be between 0 to 53% of women and 0 to 60% of men over the years. Sexual abuse is reported in 13% of females aged 13-14 in the United States; forced coital behavior occurs in over 70% of sexually active females under 14 years of age and 60% in sexually active females under age 15. Forced sex among sexually active teens occurs in 74% at 13 years of age, 60% at 14 year of age, 40% at 15 year of age, and 15% at 19 years of age. In the 1999 YRBS, sexual assault was noted in 12.5% of high school females and 5.2% of males. The 2013 CDC YRBS noted that 7.3% of high school students had ever been physically forced to have sexual intercourse against their will (25).

The 2001 Youth Risk Behavior Survey reports 10% of high school girls with forced coitus in contrast to 5% of the males. There were 272,350 over 40% victims of sexual assaults (including rapes and attempted rapes) were under the age 18 years and an estimated one-sixth being under age 12. Factors increasing chances of being sexually assaulted include hitchhiking, living on the streets, and prior assault. Unwanted sexual overtures and harassment can even occur over the internet. The 2013 CDC YRBS noted that 14.8% of high school students had been electronically bullied (25, 33-35).

### *Dating violence*

Up to 87% of high school students receive unwanted sexual comments or actions at school-lewd comments, jokes, being touched or grabbed by others (6, 13, 15, 36-38, 40, 41). Studies suggest that the majority of female youth eventually become victims of some violence while dating (35). This may be *physical*, *verbal* and/or *sexual* in nature. As many as 60% of adolescents experience dating violence and this involves youth from all ethnic groups and socioeconomic strata. Studies with college students note dating violence in 36% of the males and 59% of the females. Acquaintance or date rape may be the cause in 60-70% of adolescent assaults. The 2013 CDC YRBS noted that 10.3% of high school students reported physical dating violence; the prevalence was 13% among females and 7.4% among males (25). Sexual dating violence was reported in 10.4% in the 2013 CDC YRBS. Parents who have promoted

healthy sexual development in their youth are better equipped to intervene when there are concerns related to behavior or abuse (see Table 7).

**Table 7. Signs warning of a potential violence dating partner**

- Prevents the partner from associating with friends
- Becomes jealous with minimal (if any) reason
- Becomes upset with the teen for little or no reason
- Uses any means of violence in the relationship (including “play fighting”)
- Always apologizes for being mean or violent
- Induces sadness in the teen when with him/her
- Uses drugs , including Rohypnol or other date rape drugs when dating

### **Risk factors for adolescent members of sub-populations**

For several sub-populations of adolescents, comparatively little data is available (20,33). Existing evidence indicates that these youth exhibit behaviors or live-in environments which place them at higher than average risk for HIV, other sexually transmitted infections (STIs), unintended pregnancy, sexual abuse, and other preventable sexual health problems. These populations include LGBT (lesbian-gay-bisexual-transgender) youth; rural youth; youth with disabilities; certain immigrant youth; runaway, homeless, and “street” youth in unstable living situations; youth living with HIV; and youth in the custody of the foster care or juvenile justice systems. Until there is more nationally-representative data about such youth, policy makers and program planners will face challenges when seeking to promote the sexual health and well-being of these young people.

### *Impact of obesity, chronic illness, and disability*

Major physical changes of puberty may be impaired as a result of disease or illness: a) genitalia may not

develop primary and secondary sex characteristics, b) the expected gaining of 25% of final height doubling of lean and nonlean body mass, and weight of the major organs c) maturation of central nervous system maturation and d) facial bones and marked decrease in lymphoid tissue (see Tables 2-6) (9, 10, 23, 24, 39).

Female may not experience sequential changes of puberty at expected ages (breast bud development or thelarche), pubic hair development (pubarche), height velocity peak, menarche (onset of menstruation), axillary hair, final pubertal changes (e.g., full breast, pubic hair, and completed height development). Males also may experience accelerated, delayed or non-existent sequential pubertal changes (early testicular growth, pubarche, testicular and penile growth, nocturnal emissions, height velocity peak, marked voice changes, facial hair growth and final pubertal changes, e.g., full genital, height, and muscle development).

### *Youth who are obese*

Obese adolescents can be sexually active and become pregnancy and/or develop sexually transmitted diseases; they can also be sexually harassed and abused. These potential consequences of being obese alone can derail healthy adolescent sexual development. Research shows that not all obese adolescents grow up to be maladjusted (40). However, many of the psychosocial outcomes of obesity are also common psychosocial outcomes of adolescence; additionally, physiological and biological processes of adolescence may promote or predispose overweight in females and obesity as one of the factors that influence sexuality in adolescents.

The expression of sexual desire is shaped by the individual's obesity, chronic illness, mental or physical disability. These youth are sexual beings and have sexual desires similar to those of their healthy peers who do not have chronic illnesses or disabilities. Adolescents with chronic illnesses and deformities (including cerebral palsy, spina bifida, and others) are also invested in the development of their sexuality, even if society and parents are not focused on these issues. Growing youth worry over their changing bodies, and disabled adolescents need to learn to accept actual abnormalities and tolerate deviations

from an idealized body image. For example, youth with colostomies become anxious about being accepted because of odor, while those with arthritis become concerned about problems with pain as well as limitations. Some chronically ill teens are stimulated to coital activity to prove normalcy, while others are slow to develop healthy sexuality; the clinician can be of considerable help to both groups to encourage normal sexual development. Parents and clinicians should seek to help adolescent females develop a positive self-esteem and body image despite impaired fertility noted with various genetic and endocrine disorders.

### *Chronic illness, neurodevelopmental disorders, physical disability*

Some "sub-group" adolescents may engage in sexual activities to gain peer acceptance, approval or to prove that they are "normal" and can do what they see modeled in the media by their thin, healthy peers (9, 27, 38, 39). However, this same reaction can occur in adolescents who have physical disabilities, mental illness, chronic illness, poor social relationships, and other issues. These same groups are more victimized, date less, and are less satisfied with their dating status than are their peers. Because adolescents rely on their peers for the development and maintenance of their self-image, self-acceptance, and sense of belonging, the rejection that these youth experience from their peers can have devastating effects on their social and psychological health.

### *Youth who are runaways*

There are an estimated one million runaway youths, and an estimated one million adolescent prostitutes (male and female) who exist in the United States. Some youth run away from home while others are thrown out by parents or guardians ("throwaways"), leading to a harsh life on the street as homeless youth (13,39-47). Many will turn to prostitution, using survivor sex as a way to remain alive. Children and adolescents living on the streets of the *world* are the product of war, poverty, domestic violence, and abuse (physical, sexual, mental).

### *Youth who are homeless*

The average age range of first leaving home is 12.4 TO 13.9 years old and 550,000 youth leave home each year (27, 41, 42). Homelessness lasting longer than one week, 380,000 are younger than 18, 170,000 are ages 18-24, and 1 in 5 identify as LGBT. Also, 1 in 3 runaways have been forced to perform a sexual act against their will, and are often engage in survival sex (to get money, food, a place to stay, or drugs) and are sexually assaulted. Other data note that 32% of homeless youth have attempted suicide, 1 in 3 teens on the street will be lured into prostitution within 48 hours of leaving home, and 46% of LGBTQ youth run away because of family rejection of sexual orientation or gender identity; also, they are depressed and have been diagnosed with conduct disorder as well as post-traumatic stress disorder.

Homeless youth are subject to many dangers of the street—as physical/sexual abuse, substance abuse, sexually transmitted diseases, various medical disorders and others (36,39). Their main medical treatment is usually through the local hospital emergency department, if they receive any care at all. Estimates of the number of children and adolescents who live on the *world's* streets range from 30 million to 170 million. Children and youth are sold into slavery and prostitution in various parts of the world. There are an estimated 1 million children abducted or coerced into the global sex trade industry each year. Estimates suggest there are 300,000 child soldiers around the world—some as young as 10 years of age. Their duties are varied, from overt soldiers to providing sexual services for the older solders.

## **Conclusion**

Primary care clinicians should understand and appreciate the importance of sexuality in the lives of their pediatric patients (39, 43-46). All of the critical components to healthy child and adolescent development are equally important to the development of healthy sexuality. Normal sexuality is a critical part of normal growth and development. Children and adolescents need knowledgeable health care professionals who can supplement the parents' teaching about human sexuality in a confidential and

sensitive manner. Teens with chronic disease can have high rates of sexual activity and low rates of contraceptive use (8). The consequences of sexually transmitted infections and pregnancy in this population make it especially important for clinicians to assess for unprotected sexual activity.

Primary care clinicians should understand and appreciate the importance of sexuality in the lives of the children and adolescents they care for in their practices. Clinicians can encourage parents to nurture and promote development of healthy sexual attitudes and health in their children and adolescents by using a life skills approach. They must teach, support, and encourage behaviors that enable their youth to adapt to and deal effectively with the demands and challenges of everyday life at each stage of development. These skills include guiding the cognitive, emotional, and social relationship skills in their youth which include teaching family values and why those values are important to their families. Youth should be taught cognitive skills such as a) critical thinking skills b) problem solving skills, c), decision making skills, and d) the ability to clarify and analyse information. Teaching youth to manage their emotions includes: a) the ability to cope with stress, b) how to soothe themselves or calm down when they are upset, c) how to manage anger, and d) how to ignore people or words that cause them to be upset.

Parents also need to help their youth learn effective communication skills (i.e., how to engage in conversation, how to say what they intend to say, how to engage in active listening, and how to be understood by others) (17). Learning empathy, assertiveness, conflict negation are also essential skills parents must teach to their children and adolescents. Youth learn these skills by interacting with their parents and mimicking their parent's behaviors. This teaching starts at birth between parents and youth. These skills are the foundation for raising youth with healthy sexuality development.

Normal sexuality is a critical part of normal growth and development. Children and adolescents need knowledgeable health care professionals who can supplement the parents' teaching about human sexuality in a confidential and sensitive manner. Clinicians can also learn about potential problems with sexuality development, including unwanted

pregnancy, sexually transmitted diseases, sexual assault, dating violence, homosexuality and others. Adolescents, who are not sexually active, can be encouraged to continue in this lifestyle. Those who choose to be sexually active need information about STDs/STIs (safe sex) and pregnancy prevention (i.e., contraception), counselling about fertility, sexual dysfunction, and other essential aspects of sexuality.

Advice about sexuality should be provided in a friendly, confidential, and safe manner. The attitudes and beliefs of clinicians can influence their ability and willingness to provide counsel for teens regarding sexual orientation, pregnancy, abortion, contraception, and STDs. Clinicians can introduce the subject of sexuality into the doctor-patient communication on a regular basis and set the youth at ease while talking about sexuality. Youth may have a hidden agenda regarding various aspects of sexuality, and clinicians should be attuned to this agenda. A number of factors can compromise sexual health and careful screening will often uncover these issues. Sexuality involves various family, legal, ethical, moral, and religious issues and clinicians need training to be able to help these youth as these various factors influence the youth. Anticipatory guidance by clinicians is important to promote healthy sexuality development in children as well as adolescents and prevent complications (as unwanted pregnancy, STDs, abuse). Youth involved in abusive relationships need the guidance of trusted clinicians to steer them toward healthy adulthood.

Counselling can encourage the growth of various resiliency factors that promote healthy sexuality and healthy living, enabling these youth to deal with adversities and lead a productive adolescent as well as adult life. These factors include a sense of belonging with other peers, acquiring a healthy value system, receiving appropriate education (including sexuality education), and learning to enjoy the fascinating phenomenon of life itself. Youth need an adviser and a guide in life, one who can provide support and accurate education in important facets of life, such as human sexuality. One should follow local laws for confidentiality and provision of reproductive rights (42, 43, 46, 47).

Anticipatory guidance should emphasize the importance of protecting one's health, making good choices that allow for disease prevention and delay of

pregnancy until the patient is mature enough to manage parenting. The concept of health promotion activities throughout the patient's life beginning with the delivery of the anticipatory guidance should be stressed demonstrated in their study that structured religious interventions delays the onset of coitus and offers protective effects for both coital and non-coital sexual behaviors (42, 43).

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## Appendix A

### Definitions of Terminology

#### *Anatomic Sex*

Phenotypic appearance (male, female, intersex, includes variations such as the congenital adrenal hyperplasia (adrenogenital syndrome) and the incomplete masculinization syndrome).

#### *Antihomosexuality*

The pervasive and often institutionalized attitudes denigrating homosexuality. Experienced as self-negating and precipitating significant insecurity, ambivalence, and self-loathing by persons who are homosexually oriented during childhood and adolescent development.

#### *Asexuality*

The absence of erotic response or motivation.

#### *Biologic Sex*

The biologic sex (XX or XY) is determined at conception, but postnatal sex hormones also have influence on the developing fetus. Between the sixth and twelfth fetal week, androgens program the XY fetus to develop biologically, and to some extent, behaviorally into a male. The presence of female hormones along with the absence of a critical level of fetal androgens allows the XX fetus to develop into a normal female. Rare situations involving an excess or deficiency of sex hormones can alter the normal male or female outcome; likewise, chromosomal abnormality can cause intersex conditions. However, in nearly all cases, the XX or XY fetus is normally programmed in a poorly understood manner; and the biologic sex is clearly assigned at birth.

#### *Bisexuality*

The capacity to respond to both sexes to a significant but not necessarily equal degree.

#### *Casual Relationship*

Physical and emotional relationship between two people who may have a sexual relationship or a near-sexual relationship without necessarily demanding or expecting a more formal relationship as a goal. It is different from a one-night stand or more than just casual sex.

#### *Core Gender Identity*

Self-identification as either male or female typically occurs by age 3 years.

#### *Cross Dressing*

Dressing in clothing of the opposite sex with the intention of expressing identification with or caricaturing the opposite sex role identity; does not generally involve erotic stimulation.

#### *Friends with Benefits (FWB)*

Two friends with a very casual dating relationship. The benefits can be really good, long, flirty conversations, make-out sessions, and sex with no other commitments.

#### *Gender Role Identity*

The summation of actions that indicate to self and society the degree to which one is male, female, or ambivalent. It is influenced by familial, cultural, and social role expectations, and includes but is not limited to sexual arousal and response. It may also be referred to as one's "sex role."

#### *Gender Role Behavior*

Gender role behavior from a sexual viewpoint refers to behavior influenced or precipitated by a personal desire

for some type of sexual pleasure. This desire for physical sex resulting in orgasm is mainly explored during adolescence and frequently modified during adulthood. However, many experts emphasize that the sexual orientation (heterosexual or homosexual) of an individual develops in childhood by ages 6 – 8, and not in adolescence.

*Genetic sex*

Chromosomally determined sex (XX, XY, XXY, XYY, XO, others).

*Heterosexuality*

An erotic preference, including fantasies and experiences, for persons of the opposite sex, with minimal erotic interest in the same sex.

*Homosexuality*

An erotic preference, including fantasies and experiences, for persons of the same sex, with minimal erotic interest in the opposite sex.

*Homophobia*

The condition in which those whose love and lust are attached to others of the same sex are dreaded or feared.

During early childhood, individuals learn various behaviors associated with masculinity or femininity and then establish what can be called non-sexual gender role behavior. Thus, girls play with dolls and wear dresses; boys do not and normally will not even consider such activities.

*Hyposexuality*

The paucity of erotic response or motivation.

*LGBTQ*

Lesbian, Gay, Bisexual, Transgendered, Questioning

*Oral Sex*

Fellatio (stimulating the penis with the lips, tongue, throat, teeth);

Cunnilingus (stimulating the clitoris, vulva, labia with the lips, tongue, throat, teeth)

*Sex Buddy (F... buddy; FB)*

Sexual partner (male or female) with whom there is no danger of attachment, commitment or other complications. A person with whom you have sexual relations, on the mutual understanding that you both want sex and nothing more.

*Sexual (Erotic) Orientation*

Defined by one's prevailing, unrepressed sexual longings and fantasies.

*Sexual Dimorphism*

The structural, physiologic, and behavioral differences between the sexes.

*Transsexualism*

The expression or belief that one's gender identity does not match one's anatomic sex ("woman trapped in a man's body, or the reverse Transvestism).

Dressing in clothing of the opposite sex, predominantly by males, for the purpose of erotic stimulation.

Adapted with permission: DE Greydanus, DR Patel, HD Pratt, eds. Behavioral Pediatrics, 2nd Edition. NY: iUniverse 2006;331-3.

Adapted with permission: DE Greydanus, DR Patel, HD Pratt, JL Calles, Jr, eds. Behavioral Pediatrics, 3rd Edition. NY: Nova 2009;265-296.

## Appendix B

Psychosexual Development		
Age	Child's Needs or Interests	Anticipatory Guidance
Newborn	<p>-Cuddling, sucking, warmth and loving touch (foundations for security, trust and later ability to give physical affection are established now)</p> <p>No inhibitions around nudity</p>	<p>-Help parents understand the importance of touch, of warm and loving cuddling</p> <p>-Encourage breastfeeding, front packs, rocking chairs; if newborn is bottle fed, encourage holding during feeding times</p> <p>-Tell parents: "You can't spoil a baby at this age – it's okay to pick her up when she cries"</p> <p>-Observe parents' interactions with newborn – demonstrate/model appropriate behaviors if parents seem uncomfortable</p> <p>-Comment on role expectations – by choosing "pink or blue" you are already sending sex role messages to your infant</p> <p>-Tell parents their child's path of curiosity and discovery throughout development requires their guidance</p>
6 months	<p>-Infant begins to discover body</p> <p>-Self-stimulation and touching of genitals</p> <p>No inhibitions around nudity</p>	<p>-Tell parents self-exploration is normal behavior</p> <p>-Ask parents about their own attitudes toward infant self-exploration</p> <p>-Remind them, "Don't slap his hands," as this sets up negative messages (i.e., that part of your body is "bad")</p> <p>-Tell them to give the child something else to explore</p> <p>-Show the parents the parts of genitalia – encourage them to use anatomically correct term, teach them vocabulary</p> <p>-Encourage questions – let them know sexually related topics are appropriate to discuss during health care visits</p>
1 year	<p>-Curiosity as to: what daddy and mommy look like without clothes on if they have siblings, they may be curious about what their siblings look like when they are naked</p> <p>Exploration of body parts continues</p> <p>No inhibitions around nudity</p>	<p>-Ask about parental guidelines for household nudity. Explore parents' own attitudes – what's best is what they are comfortable with</p> <p>-Explain that children begin to establish gender identity by observing differences in male and female bodies</p> <p>-Continue to teach correct names of body parts, such as penis and vagina</p> <p>-Explain basic information about the differences between male and female anatomy</p> <p>-Use picture books if nudity is uncomfortable</p> <p>-Parents should avoid messages that convey nudity as "dirty" or "pornographic"</p>
1 <sup>1/2</sup> – 3 years	<p>-Self-respect and self-esteem develop in response to how others in their environments respond to them.</p> <p>-Feelings form about being a boy or a girl</p> <p>-Effectiveness of toddler discipline at this age determines later ability to handle frustration and have self-control</p> <p>-Exploration of body parts continues and is common - masturbation, in public and in private may occur</p> <p>-Bathroom activities are of great interest (toilet training)</p> <p>-Sense of privacy develops</p> <p>-No inhibitions around nudity</p> <p>- (Ages 2-5)</p> <ul style="list-style-type: none"> <li>• Occasional masturbation. This usually occurs as a soothing behavior rather than for sexual pleasure. It may occur publicly or privately.</li> <li>• Consensual and playful exploration with children of the same age. This could include "playing house" or "playing doctor."</li> <li>• May ask questions about sexuality or reproduction, such as, "Where do babies come from?"</li> </ul>	<p>-Teach parents how self-esteem is developed. Need for lots of positive feedback ("catch them being good"). Children learn positive self-esteem by doing and being successful in learning to do things for themselves</p> <p>-Give praise and positive messages about being either a girl or a boy. Let children seek own preferences for sex role behavior (okay for boys to play with dolls or girls to play with trucks)</p> <p>-Discuss plans for discipline. Teach parents methods (e.g. time out). Emphasize how to give positive reinforcement ("I like it when you__")</p> <p>-Encourage parents to help children learn correct words for genitals and body functions (penis, vulva, BM)</p> <p>-Discuss toilet training – using rewards and reinforcing positive attitudes about genitals</p> <p>-Continue to teach correct names of body parts, such as penis and vagina</p> <p>-Explain basic information about the differences between male and female anatomy</p> <p>-Help children begin to understand how to interact respectfully with peers of the same age</p> <p>Do not force children of this age to share, developmentally they may not</p> <p>(Ages 2-5)</p> <p>-Provide basic information about reproduction (e.g., babies grow in the uterus of a woman)</p>

## Appendix B. (Continued)

Age	Child's Needs or Interests	Anticipatory Guidance
	<ul style="list-style-type: none"> <li>• May show curiosity in regard to adult bodies (e.g., wanting to go into the bathroom with parents, touching women's breasts, etc.)</li> <li>• Continued lack of inhibition around nudity. May take-off their diaper or clothes off</li> </ul> <p>Uses slang terms for body parts and bodily functions</p>	<ul style="list-style-type: none"> <li>-Encourage a basic understanding of privacy and when things are appropriate and inappropriate</li> <li>-Explain the difference between wanted and unwanted touch. For example, a hug that is welcome and positive versus one that is unwelcome and uncomfortable</li> <li>-Teach children about boundaries</li> <li>-Let children know that their body belongs to them and that they can say no to unwanted touch</li> </ul>
3 - 5 years (Some issues may begin at 2 years of age)	<ul style="list-style-type: none"> <li>-Child needs answers to "sexual questions" appropriate to cognitive level of development</li> <li>-Grasping genitals is clearly pleasurable, may occur when child is upset</li> <li>-Children become very seductive (not to be confused with intent to engage in sexual activity) toward opposite sex parent (learning how to manipulate their environments)</li> <li>-Role-modelling (assimilation of characteristics of same-sex role model) takes place</li> <li>-Children begin learning what is socially acceptable, what behaviors are public or private, and how to show respect for others</li> </ul>	<ul style="list-style-type: none"> <li>-Tell parents to expect sexual questions ("where do babies come from") and give examples of how to answer them</li> <li>-Give techniques for determining level of understanding ("where do you <i>think</i> they come from")</li> <li>-Child needs to learn it's okay to talk about sex</li> <li>-Give booklets or suggest additional educational materials</li> <li>-Prepare parent for child's seductive behavior</li> <li>-Encourage parents to support each other and put their needs as a couple first (bad time to get divorced)</li> <li>-Remind them to role model the kind of male-female relationship they want their children to imitate (because the kids will)</li> <li>-This is the time to begin demonstrating that women have rights and men are equally responsible for outcomes</li> </ul>
5 - 7 years	<ul style="list-style-type: none"> <li>- "Playing doctor" continues to be universal</li> <li>- Kids have learned parents' discomforts, starting "keeping secrets" about sex</li> <li>- Peer discussions provide many ideas about sex – dirty jokes among playmates common</li> <li>- Four-letter words (for exhibitionist behavior) used for shock value</li> <li>- Starting school – so stranger awareness is important</li> <li>- Continued use of slang words, "potty humor" or jokes to describe body parts and functions</li> <li>- Deeper understanding of gender roles. May act in a more "gendered" manner as expected behaviors and norms associated with gender are learned (e.g., girls may want to wear dresses)</li> <li>- Sex play or activities that explore sexuality and bodies may occur with same- and opposite-sex friends</li> <li>- Masturbation. Some children may touch their genitals for the purpose of pleasure. This happens more often privately rather than in public.</li> </ul>	<ul style="list-style-type: none"> <li>- Let parents know that childhood genital exploration is typical – it satisfies curiosity about opposite sex</li> <li>- Ask parents about their own childhood experiences "playing doctor"</li> <li>- Discuss ways to handle the situation ("It's normal to be curious – we consider other people's bodies private – I'd like you to get dressed and play other games")</li> <li>- Same with four-letter words ("be cool")</li> <li>- Encourage parents to bring up sexual questions, rather than waiting to be asked, use the concept of "teachable moments" to reinforce that it's okay to talk about sex.</li> <li>- Encourage parents to engage in ample family discussions about sex to balance what is learned from playmates</li> <li>- Discuss sexual molestation as a risk – discuss prevention techniques to teach children. This can be accomplished by: <ul style="list-style-type: none"> <li>• Encourage parents to "model respectful boundaries when it comes to touch and affection.</li> <li>• Don't coerce children to give hugs or other displays of affection when they don't want to.</li> <li>• Teach them that they have a right to have boundaries around their personal space and body from a young age and that they have a responsibility to respect the boundaries of others.</li> <li>• Empower children to seek help when something feels uncomfortable to them</li> </ul> </li> <li>- Explain that there are different sexual orientations such as heterosexual, homosexual, and bisexual</li> <li>- Promote a solid understanding of gender and how children experience their gender identity. Children who identify as transgender or gender non-conforming will experience this also, but can face confusion and may need increased support from adults</li> <li>- Explain the basics of human reproduction, including the role of vaginal intercourse</li> <li>- Talk about the physical changes that will occur during puberty</li> <li>- Encourage to explain to their child that masturbation is something that occurs in private</li> <li>- Educate on personal rights (e.g., "your body belongs to you") and responsibilities (e.g., treat boys and girls equally) related to sexuality.</li> </ul>

Age	Child's Needs or Interests	Anticipatory Guidance
7 – 9 years	<ul style="list-style-type: none"> <li>-Child needs answers to more advanced sexual questions (often scientific) e.g., “How does the baby get into the womb”</li> <li>-Needs preview of changes in sexual development that will be associated with puberty</li> <li>-Values are instilled now that will last a lifetime (e.g., self-responsibility, kindness)</li> </ul>	<ul style="list-style-type: none"> <li>-Ask if parents have been getting any sexual questions (if not, child may feel it's not okay to ask). Dispel myth that information leads to sexual experimentation or that child is “too innocent” to hear about sex</li> <li>-Encourage them to use experiences such as TV shows, mating animals, new babies in neighborhood, as opportunities to bring up questions</li> <li>-Assure parents it's okay not to know all the answers. Guide them to resources (books) for information</li> <li>-Help parents to understand a wide range of pubertal development (e.g., breast budding at age 8-9 is normal) issues</li> <li>-Encourage parents to teach difference between facts and opinions, e.g., that nearly all young men masturbate is a fact; that masturbation is bad (or good) is an opinion (with which others may not agree)</li> <li>-Encourage parents to understand the importance of teaching their child the family values and beliefs, as well as facts</li> </ul>
10 – 12 years (some issues may begin at 9 years of age)	<ul style="list-style-type: none"> <li>-Pubertal changes are of great importance – hormone levels rise</li> <li>-Both sexes need to know about body changes, menarche, wet dreams, and sexual fantasies</li> <li>-Sex behavior “rehearsal” is common (looking through <i>Playboy</i>, spin-the-bottle games)</li> <li>-Questions about homosexuality arise</li> <li>-Need for privacy intensifies</li> <li>-Self-esteem is very fragile</li> <li>- As puberty begins an increased need for privacy and independence is often expressed</li> <li>-Interest in relationships. May want to have a girlfriend or boyfriend</li> <li>-May express curiosity about adult bodies. This could involve the child trying to see people naked or undressing or involve looking for media (such as TV, movies, websites, and magazines) with sexual content</li> <li>-As social norms around masturbation become clearer. Masturbation will likely occur in private</li> </ul>	<ul style="list-style-type: none"> <li>-<i>By now, caregivers should start giving anticipatory guidance directly to young teens as well as to parents</i></li> <li>-Parents must remember that their children are still very concrete in their thinking and may not relate current behavior to later consequences</li> <li>-Self-awareness is not usually present</li> <li>-Parents need to understand the normalcy of preadolescent sexual concerns and be willing to discuss them in a nonjudgmental way (last chance to be an important source of information – later it will be peers)</li> <li>-Empathize with parental discomfort (“sometimes we feel uneasy talking about sex, but-”)</li> <li>-Model nonjudgmental ways of asking questions (“some parents don't mind their children looking at <i>Playboy</i>, and some parents disapprove. What are your feelings about that?”)</li> <li>-Parents must set aside time to talk with children about puberty and sexual changes</li> <li>-Encourage parents to allow information about sex and sexuality from multiple sources: School and community groups (Scouts, Church) should be encouraged to provide sex education for young adolescents</li> <li>-Build self-esteem – preteens need lots of positive feedback</li> <li>-Provide ongoing information about the physical aspects of puberty and changes in their body</li> <li>-Educate children on the social and emotional aspects of puberty. Help to normalize the new emotions and needs that they may be experiencing</li> <li>-Provide age-appropriate sexuality information and basic information about sexual behaviors and sexually transmitted infections, etc.</li> <li>-Encourage critical thinking and build the skills to differentiate fact from fiction in media images and representations of sexuality</li> <li>-Support them in understanding they have both rights and responsibilities in their friendships and relationships. Encourage characteristics of healthy friendships and relationships</li> </ul>
11 – 15 years (early adolescence)	<ul style="list-style-type: none"> <li>-Obsessive concern with body and appearances (breast size, penile erections, acne, etc.)</li> <li>-Pubertal changes are completed – need for a solid understanding of reproductive physiology</li> <li>-Sexual behaviors emerge (masturbation, homosexual encounters, sex dreams)</li> </ul>	<ul style="list-style-type: none"> <li>-At puberty, parents will reap the results of their past efforts</li> <li>-Parents need to learn how to “let go with love” and let the teen take responsibility for choices</li> <li>-Reflective <i>listening</i> is far more important than talking</li> <li>-Affirm wholesomeness of sexual feelings (“it's natural to want to have sex”) while conveying own opinions (“it would be wiser to wait until you're sure”)</li> </ul>

## Appendix B. (Continued)

Age	Child's Needs or Interests	Anticipatory Guidance
	<ul style="list-style-type: none"> <li>-“First dates” start – questions about “what is love”</li> <li>-Peer pressure become significant</li> <li>-Need for assertiveness skills, right say “NO”</li> <li>-Boys need to know they are equally responsible for consequences of sexual activity</li> <li>-Both sexes need to be prepared to use contraception when the time comes</li> <li>-Educations about STDs, AIDs prevention is a priority</li> <li>-Self-esteem still low</li> </ul>	<ul style="list-style-type: none"> <li>-Parent should be sure teens have access to educational resources (e.g., <i>books</i>) that will answer questions in detail</li> <li>-Many heterosexual young teens have some experimental homosexual encounters prior to dating. They may need reassurance and information</li> <li>-Parents need to prepare teens to use contraception – discuss realities, give permission, explain about resources. Dispel parental myths (e.g., that access to family planning promotes promiscuity)</li> <li>-Message should be “wait until you’re sure you’re ready, then use reliable birth control each and every time”</li> <li>-Do not give messages that “good girls” don’t have sex – guilt induction leads to denial and inability to accept responsibilities for choices (e.g., unprotected sex)</li> <li>-Risks of STDs and AIDs should be discussed openly. Help teen realistically plan for self-protection (abstinence, monogamy, condoms)</li> <li>-Continue to discuss personal values (continue to separate facts from opinions)</li> <li>-Continue to reinforce positive self-esteem</li> <li>-<i>Caregivers</i>: The same anticipatory guidance should be given directly to teen in the office setting.</li> </ul>
15–17 years (middle adolescence)	<ul style="list-style-type: none"> <li>-Sexual activity begins</li> <li>-Services for sexual issues (family planning, STD, pregnancy tests) are essential</li> <li>-Meaning of relationships is explored (“Does he really love me”)</li> <li>-Life planning becomes serious (high-risk low-income teens needs to see options beyond pregnancy)</li> <li>-Increased independence can lead to risks (date-rape, sexual assault)</li> <li>-Sexual preference becomes apparent to self – homosexual teens may feel much confusion and self-doubt</li> </ul> <p>Middle adolescence (15-17 yr)</p>	<ul style="list-style-type: none"> <li>-<i>Ask parent</i>, “What have you done to prepare your teen to use contraception when the time comes?” “How much have you discussed STD or AIDS with your teen?”</li> <li>-Encourage parents to give teens permission to obtain contraception, and acquaint them with resources and means</li> <li>-Allow confidentiality and independence for teens seeking health care</li> <li>-Parents can continue to raise questions (“What did you think of that TV scene that showed ___?”) and give teens a chance to look at choices and consequences. But be prepared for either unwillingness to talk or challenges to parental viewpoints</li> <li>-Most teens do not want to discuss their personal sexual activities with their parents</li> <li>-Suggest to parents that they discuss teen’s plans for the future, and then ask how plans would be affected by pregnancy, or marriage, etc.</li> <li>-Teens need to know family, society <i>expect</i> them to prevent unplanned pregnancy, STDs if they choose to have sex</li> <li>-Discuss prevention techniques for sexual assault</li> <li>-Sexual orientation should be asked about (rather than presumed)</li> <li>-Referral to support resources may be helpful to gay teens or their parents if emotional or societal stress is present</li> </ul>

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