

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 1991 Volume V: Adolescence/Adolescents' Health

Dysfunctional Adolescent Behavior

Curriculum Unit 91.05.09 by Grayce P. Storey

GROWTH AND DEVELOPMENT

Puberty is a physical change; the child's body matures and becomes capable of reproduction. Puberty is also an indication of the beginning of adolescence. In both boys and girls puberty is marked by secondary sexual characteristics (breasts, pubic hair, facial hair, axillary hair and development of external genitalia).

Females reach puberty between the ages of 10 and 14 and is usually 1 1/2 to 2 years before males. The onset of puberty in males is from 12 to 16 years of age. On the average, once puberty begins it is usually complete within 3 years.

Puberty is triggered by hormones. The maturation process of hormones involve highly complex interactions between parts of the brain and the reproductive organs.

The hypothalamus in the brain produces a *follicle-stimulating hormone releasing factor* (FSHRF) and a luteinizing hormone-releasing factor (LHRF). These substances cause the pituitary gland to produce follicle-stimulating hormone (FSH) and luteinizing hormone (LH). In the female, LH controls the production of estrogen, a female sex hormone, ovulation, and the production of progesterone, a sex hormone. FSH controls the maturation of ova. In males FSH controls spermatogenesis, the process responsible for the production of sperm. LH stimulates other testicular cells to produce testosterone, a male sex hormone.

Hormonal shifts trigger behavioral changes. The child may experience moodiness or depression. As secondary sex characteristics begin to develop the child may feel ambivalent about the body transforming into that of an adult.

Effects of Testosterone at Puberty

Growth of pubic hair

Growth of facial hair

Muscular development

Deepening of voice

Curriculum Unit 91.05.09

Sexual response Effects of Estradiol at Puberty Distribution of body fat Breast development Distribution of body hair Menstruation

MENARCHE

Menarche the first menstrual period marks the beginning of womanhood. Sometimes ovulation does not occur until several years after menarche but this should not be considered adequate protection for sexually active adolescents. Some young women view menarche as a positive experience some find it upsetting, and still others find it somewhere in between.

There is no absolute age for a girl to start menstruating. The cycle usually starts between ages 10 and 15. In North America improved nutritional status and general good health lowered the average age of menarche to about 12 1/2 years. Some girls may feel self-conscious about menstruating later or even sooner than their friends. It is important to emphasize to them that each person is unique and that each matures and develops at her own rate.

The menstrual period is part of the menstrual cycle. Most periods occur about every 28 days and a normal period can last anywhere from 2 to 7 days.

Ovulation occurs about mid-cycle. The egg can only be fertilized before it reaches or while it's in the fallopian tube. Conception cannot occur once the egg has left the tube. Ovulation is hard to predict and therefore cannot easily be used as a birth control technique.

It is also noteworthy that menstrual cycles can be anovulatory for the first few years after menarche.

Dysmenorrhea is usually associated with contractions of the uterus as it expels the menstrual fluid.

SPERMATOGENESIS

The male does not begin to make sperm until after puberty is initiated. The synthesisation of new sperm is then continued throughout his life. Sperm is produced in the testicles, protected by the scrotum.

LH controls the secretion of the primary male sex hormone (testosterone). FSH, in conjunction with testosterone, is responsible for spermatogenesis.

Ejaculation is the reproductive indicator in the male. This may occur first with masturbation or nocturnal emission. The normal age range for a first ejaculation varies. Twelve to sixteen are common ages for the onset of puberty. Spermatogenesis usually occurs 1 to 2 years later.

GROWTH

Large growth spurts occur during adolescence in both males and females. The male also experiences a greater increase in muscle mass than the female. The distribution of adipose tissue in the female is also noticeable, and causes the adolescent to start resembling an adult. An increase in appetite may accompany the growth spurts.

There are skin changes that are associated with puberty. The sebaceous glands secrete more sebum which can lead to excessively oily skin and acne.

Changes in the voice is due to a change in the larynx in both males and females, but most noticeable in males.

PSYCHOSOCIAL

Adolescence brings with it upheavals. Family, peer and society relations are altered. There is a need for the adolescent to see him or herself as a separate human being. Levels of great change can cause levels of great stress. What the child is actually experiencing are mixed feelings of being both a child, an adult and a non-integral mixture of the two.

The possibilities and choices are numerous during the adolescent period. It is during this time that the child makes many discoveries about self, parents, friends, sexual relationships, and about the world as a whole. It is also during this time that ambivalence is experienced. The child is torn between the responsibilities of an adult and the security of being a child. It is during this period that the child is easily frustrated by limits on his or her controls. The child may become angry and hostile in response to preconceived threats to his or her state of independence.

Psychologist Erik Erickson has described each stage of the life cycle in terms of universal "tasks." The adolescent has tasks to complete in the transition from childhood to adulthood. Erickson has also described the adolescent period as one of identity role versus role diffusion. He concluded that the formulation of identity is an ongoing process through the stages of life. In Erickson's description of role diffusion, he sees it as the opposite to successful identity integration. The adolescent experiences too many changes and not enough support.

As the child grasps concrete concepts the formal abstract cognitive patterns develop. m is pattern development makes the child more inclined to think about morals, values, and ethics.

The peer group is an important phase in adolescent development. It is the peer group where the standard for what is normal or deviant begins, especially in terms of physical changes, body image, and behavior. The adult intimate relationship starts to be experienced through heterosexual and homosexual friendship. In adolescent development the peer group becomes a secure atmosphere as the adolescent commences to separate him or herself from the family. It is in the peer group that the adolescent feels more comfortable expressing his or her feelings and exploring changes of common origin.

It is through the refining of the adolescent's skills and achievements that a healthy sense of competitiveness is developed. Ideas of contemporaries help to define lifestyle, career, and further education.

Cliques are common among adolescents who desire to be included into the proper groups. When that does not happen some experience feelings of isolation and pain which leads to distress.

NUTRITION

Food is a necessity for the living. Without food the human body will eventually shut down, as cells which make up organs and systems die. If the cells in the body are to develop properly, proper nutrition is needed.

It is imperative for the adolescent to engage in sound nutritional habits. Doing so will not only ensure the attainment of full height during the rapid growth period, but also enhance the foundation of good health as an adult.

The eating habits of adolescents vary, reflecting family, society and peer influences. Females are especially prone to try new fad diets. Most adolescents enjoy snacking on junk foods that may not provide them with needed vitamins, minerals, and proteins for proper growth and development.

If adolescents are given more responsibility for their nutrition, it may be a more successful approach to a proper diet than force. Proper classes and professional assistance can help adolescents choose a sound nutritional diet.

ANOREXIA NERVOSA

Anorexia nervosa is a condition in which an adolescent limits his or her nutritional intake in order to lose weight. This limitation results in behavior changes that eventually lead to severe weight loss and starvation.

Victims of anorexia nervosa, more often female than male, may have problems in asserting independence and effective control of their lives. The victim may also have deep ambivalent feelings about growing up, attaining mature sexuality, and dealing with various dynamics in the family.

The victim holds a distorted self picture. They see themselves as fat, and become obsessed with food. Nuch time may be spent in preparation of food that they will not eat. They engage in extreme diets, and strenuous Curriculum Unit 91.05.09 4 of 14

physical exercise, and occasionally in self-induced vomiting, or laxative abuse. This condition may lead to hospitalization. Treatment for anorexia nervosa is aimed at correcting the malnourished state and the emotional disturbance of the victim and the victim's family. Psychotherapy is used to explore what caused the problem. Parental support is of great importance during the illness. The victim has to develop a sense of responsibility toward their health and their eating habits.

BULIMIA

Bulimia is "binge-eating" followed by self-induced vomiting. The victim will compulsively overeat, then vomit. The purging is associated with guilt feelings and fear of weight gain. Treatment for bulimia is on an outpatient basis, focusing on weight stabilization and resolving emotional distress. If the condition goes untreated the victim will suffer from erosion of tooth enamel and esophageal lining due to the repeated contact with acidic gastric secretions. Continuous purging can also cause a loss of potassium, which may cause a chemical imbalance in the system. This severe chemical imbalance can cause irregularities in the heart's function, which may lead to death. Psychiatric treatment may also be necessary.

OBESITY

A person is often considered to be obese when he or she is twenty percent above the ideal body weight according to the person's height and build. Obesity is a problem for all ages. For adolescents, it can be stressful because of their consciousness of body image, sexuality, peer and societal approval. Obese adolescents usually were obese children. Obesity causes emotional problems, increases the risk of many diseases, and increases dangers in surgical procedures.

When considering whether a person is obese, weight is not always an accurate indicator. The skeletal frame and muscle mass are to be considered in determining how much of the weight is in fat deposits. Genetics play a major role in childhood obesity. Primarily, overeating and a low activity level cause obesity. Compared to their nutritional needs obese individuals eat excessively, often rapidly, sometimes without hunger, and often at night.

The adolescent who was obese as a child may have suffered early devaluation in a society oriented to thinness. This devaluation can cause low self-esteem. With a heightened sense of poor body image, obesity can mean a loss of self-worth. With added pressure from peer groups and society the individual may resort to food for gratification and comfort. Diets fail because the emotional need for food is outstanding.

Early adolescent years are the periods of rapid growth and adequate nutritional intake is important. No weight reduction plan should be considered that will deprive the body of necessary nutrients. The adolescent is advised to seek professional guidance in choosing a weight reduction plan. As the adolescent increases his or her height, their weight will become more evenly distributed.

In the behavior technique for weight loss the individuals are helped to realize the parameters of hunger and starvation. They learn to eat more slowly and to recognize the times of emotional stress that lead to finding comfort in food. It is essential to follow an exercise program. Physical activity helps the adolescent develop a

sense of accomplishment. Support is greatly needed in any weight reduction plan. Other means must be considered to satisfy emotional needs other than food. Realistic and tangible incentives are good motivators. Low calorie food alternatives should be substituted for high calorie choices. By the adolescent assisting in food preparation a sense of responsibility and control over food intake can be developed. Gradual changes are advised, with the adolescent participating in what he or she can realistically accomplish.

The treatment of obesity can be slow, difficult, and **frustrating.** Though the problem often times seems overwhelming to the adolescent, their family, and even professionals, the benefits of weight loss, both emotional and physical, are such that every effort should be made to assist the adolescent in a safe, effective reduction plan.

SEXUALITY

One of the most devious changes in adolescents is that of sexuality. As adolescents grow, their interests and thoughts in sex increase. Sexual feelings increase and so do physical sexual responses. Psychosocial development helps the adolescent to see the possibilities of sexual relationships.

Sexuality development is unique and everyone develops at their own pace. While some adolescents take an interest in sex at an early age, others start much later. With of some early interests, adolescents are considered at risk of becoming involved in situations they may not be ready to handle.

Sexuality is essential to adolescent development. It is also important that adolescents adjust to their individual emerging sexuality. Open decisions between adolescents and parents on the general issue of sexuality will assist the adolescent in making life decisions. These decisions may include what the adolescent wants to do in terms of sexual activity and feelings about personal sexual development. Sexuality development in the adolescent can be very frightening for the parents. It appears to be tangible evidence that the parent is losing the child. The parent becomes overwhelmed by the thought of what lies ahead for the child. The risks of sexual relations, moral issues, and premarital sexual activity are predominant in their worries. The parents and adolescent benefit when they discuss feelings and related concerns of sexual activity together.

When the adolescent thinks of sexual activity, they feel guilty. These feelings may arise from blatant warnings about sexual feelings and activities, from authority figures. Once adolescents become more comfortable with their sexuality, the guilt feelings usually subside. At times some feelings run deep which indicates that professional assistance is needed. As the adolescent becomes more aware of their feelings, they have sexual daydreams or fantasies. The fantasies assist them in seeing themselves as a sexual person, and therefore helps them to adapt to the role.

As the young person struggles with identity, homosexual feelings are common. Discovering sex with a close friend of the same sex is not unusual as the adolescent tries to find himself in conjunction with more strong sexual feelings. These feelings usually pass as the adolescent becomes more comfortable with his sexuality, or they may develop toward definite homosexuality. Today's society is biased toward heterosexuality. Homosexual feeling in the adolescent can bring about feelings of distress and support may be needed to understand these feelings and how to cope with them.

SEXUALLY TRANSMITTED DISEASES—(STD)

Adolescents should have correct information concerning risks involved in sexual activity. One risk is *sexually transmitted diseases*, or STDs. It is important that correct information is given concerning the diseases, such as methods of transmission, symptoms, treatment and prevention. Any STD may carry a stigma of shame, which may prevent the infected victim from seeking treatment.

STDs are infectiously transmitted, but not exclusively by sexual intercourse. Sexually transmitted diseases are more often acquired by people who have many new sex partners, or who share IV needles for some STDs are also transmitted through the blood.

During the second World War, STDs increased in the United States and Europe and decreased with the introduction of penicillin, which provided a cure for syphilis and gonorrhea. In the 1960's and 70's STDs increased again with the introduction of the birth control pill. These inventions allowed couples not to use barrier contraceptives, which had also provided some protection against infection.

In the 1970's and 80's antibiotics provided a rapid cure for most patients. Also in the 1970's it became apparent that certain STDs (herpes and hepatitis B) could not be cured, with hepatitis sometimes being fatal. Promiscuous sex is now a high-risk activity.

CHLAMYDIA

Chlamydia are a group of microscopic organisms that range in size between a virus and a bacteria. This microscopic organism can cause infection in both humans and animals.

Chlamydia trachomatis causes infections in the genitals, eyes, lymph nodes, lungs, rectum and throat.

Genital infections of *Chlamydia trachomatis* cause the STD, lymphogranuloma venereum in the tropics. In developed countries it causes nonspecific urethritis (NSU) or nongonococcal genital infection which is most common in the United States.

NSU in men may cause penile discharge, infection of the epididymis, and if untreated may lead to infertility. In women NSU is usually symptomless: however, there may be a vaginal discharge or painful urination which may be associated with cervicitis (cervical inflammation), or salpingitis (inflammation of the fallopian tube). An estimated 5 to 13 percent of all women in the U.S. have a chlamydial inflammation of the cervix. Treatment for NSU is with antibiotics, such as tetracycline or erythromycin. Both sexual partners should be treated.

Certain strains of *Chlamydia trachomatis* occur in parts of Africa and Asia where hygiene is lacking. The result is a serious eye disease, called trachoma. This disease is spread from eye to eye by flies. This strain is the most leading cause of blindness worldwide.

Chlamydia trachomatis causes a serious respiratory infection and is a major cause of pneumonia among infants in the United States. Three to four babies out of a thousand are affected. The main symptoms are difficult breathing and staccato coughs. The treatment is, with antibiotics.

GONORRHEA

Causes Gonorrhea is caused by the bacterium Neisseria gonorrhoeae . The bacteria are frequently passed during sexual intercourse with an infected person. The transmission can take place during vaginal, anal, or oral sex. The bacteria lives in moist, dark, and warm places. An infected woman is capable of transmitting the disease to her child during child birth. Gonorrhea cannot be contracted through inanimate objects.

Gonorrhea is prevalent among young adults who experience many sexual partners and is the second most common STD.

Symptoms & Signa The incubation period of gonorrhea is 2 to 10 days. Usually in men the symptoms include a urethral discharge and painful urination. Women may be symptomless, but about 40% of women experience some vaginal discharge or a burning sensation upon urination. Gonococcal proctitis (inflammation of the rectum and anus) is an infection acquired through anal sex. The symptoms are pain and discharge in about 10` of infected persons. Gonococcal pharyngitis results from experiencing oral sex with an infected person. The symptoms include a sore throat but then again, most people have no symptoms. An infected infant exposed by an infected mother during childbirth may acquire gonococcal ophthalmia (a severe inflammation of the eyes).

Untreated gonorrhea may spread to other parts of the body, causing infertility in both males and females. Once the bacteria enter the bloodstream they can cause pain and swelling of the joints; and also septicemia (blood poisoning), which causes fever and malaise. It can even spread to the brain and heart, and cause death.

A laboratory test is necessary in order to confirm a diagnosis of gonorrhea.

Treatment Treatment is usually with antibiotics. Tests are also taken after the treatment to ensure that the infection has been cured. Sexual partners must be informed, because they may not have any symptoms to suggest that they need care.

SYPHILIS

Syphilis is caused by a spirochete which enters the body through the mucous membrane. It can be congenital or sexually transmitted infection. In the last decade of the 15th century it was a major epidemic in Europe, succeeding the return of Columbus from America. Today syphilis is transmitted through sexual contact and exchange of blood, as in sharing of drug needles.

Causes Syphilis is caused by Treponema Pallidum , a spirochete. The spirochete penetrates broken skin or mucous membrane in the genitalia, rectum, or mouth during sexual intercourse with an infected person. After entering the body, the organism passes through the body in the blood stream and lymphatic system. In the late 1970's and early 80's the number of cases of syphilis in the U.S. increased. Further increases have occurred during the AIDS epidemic, as both infections shared the same pathways of transmission. Symptoms & Signs Untreated syphilis passes through three stages. In the primary stage a sore (chancre) appears 3 to 6 weeks after exposure and heals in 4 to 8 weeks. The chancre is a painless ulcer with a hard wet base. The base is covered with serum and spirochetes. These ulcers usually develop on the genitals, anus, mouth, rectum or fingers. The secondary stage is from 6 to 12 weeks after infection. A transient or recurrent rash may appear. In Caucasians the rash is a round, pinkish red spot. In Afro-Americans the rash appears darker than the normal skin. Accompanying the stage the infected person may suffer headaches, aches and pain in the bones, loss of appetite, fever and fatigue. The secondary stage may last for a year. The latent stage can last a few years or the duration of the person's life. During this time, the infected person may appear normal. During the tertiary stage (which commences 10 years after the infection), there is a possibility that the aorta can be affected and an aneurysm develop. Syphilis in the tertiary stage can cause brain damage and general paralysis.

Treatment Penicillin is used to treat the disease. Early infections can be cured by a single large injection. Later forms of syphilis requires a larger course of treatment. Organs that are damaged because of the disease cannot be repaired.

Prevention A monogamous relationship can help prevent spread of the infection. Condoms offer some measure of protection. Syphilis is only infectious in the primary and secondary stages but not in the latent and tertiary stages.

HERPES

The STD herpes produces a painful rash on the genitals caused by the herpes simplex virus (herpes virus hominis type 2). Genital herpes is transmitted by sexual intercourse with another person.

The incubation period for the herpes virus is about a week. The virus produces a burning, itching sensation and a small blister bursts. It then takes 10 to 21 days for them to heal. Lymph nodes in the groin may become enlarged and painful. The infection give leave the infected person a headache or a fever. Infected women with genital herpes may suffer painful urination when the urine comes in contact with the sores. In contrast, cold sores which appear around the mouth are a good indication of herpes type 1 infection.

Treatment There is no cure for genital herpes; however, early treatment will likely prevent or reduce the severity of an attack. Treatment for the herpes simplex virus depends upon the type, site, and severity. Antiviral medication acyclovir makes the ulcers less painful and aids in healing. Attacks occur after sexual intercourse, sun bathing or when a person is run down. During an attack, sexual activity should be avoided. Also, if an attack of genital herpes occurs during the time a mother is in the delivery room giving birth, a cesarean section should be performed to prevent the baby from being infected.

Once the virus enters a person's body, it stays there for the rest of that persons life.

CONCLUSION

During adolescence many physiological changes take place in the body. These changes, along with others that are social, emotional and mental must occur for the adolescent to make the transition into adulthood. Often the changes threaten the adolescents ability to cope with them, and at times adolescents need a lot of family support. It is of importance for the family to assist and coach the adolescent in making decisions.

Parents, too, are sometimes confused by the many mood swings and they may question if what is taking place is normal. There are times when the parents as well as the adolescent need to be educated in adolescent behavior and the transition into adulthood. The education can drastically reduce the amount of upheaval in the family.

VOCABULARY

- 1. syphilis
- 2. infection
- 3. spirochete
- 4. mucous membrane
- 5. genitalia
- 6. chancre
- 7. monogamous
- 8. herpes
- 9. incubation
- 10. lesions
- 11. masturbation
- 12. STD
- 13. gonorrhea
- 14. adolescent
- 15. ulceration
- 16. bulimia
- 17. dysmenorrhea
- 18. cliques
- 19. permiscuous
- 20. ambivalence
- 21. chlamydia s
- 22. permatogenesis
- 23. anorexia nervosa
- 24. obesity
- 25. sexuality

VISUAL AIDS

- 1. Nutrition: Young People What You Are is What You Eat
- 2. Nutrition: Psychosocial Physiologic Basis
- 3. Nutrition: Overweight

RESOURCES

- 1. Dietician
- 2. Nutritionist
- 3. Pediatrician (school's)
- 4. Child Psychologist

Lesson Plan I

STDs 2 days

After completing this unit 80% of the students will be able to list the means of transition, some signs and symptoms, the treatment and prevention of 4 types of sexually transmitted diseases.

The students will act out skits on various aspects of STDs (the skits will be recorded and played back for class discussion).

The students will write a report on a STD.

Materials:

- 1. camcorder
- 2. VCR tape
- I. Lecture and discussion: Herpes, Syphilis, Chlamydia, and Gonorrhea.
- A. Herpes
- 1. transmission
- 2. signs and symptoms

- 3. treatment * no cure
- 4. prevention
- B. Syphilis (same as "A" procedure)
- C. Gonorrhea (same as "A" procedure)
- D. Chlamydia (same as "A" procedure)
- II. Vocabulary
- 1. herpes
- 2. syphilis
- 3. gonorrhea
- 4. STD
- 5. spirochete
- 6. chancre

- 7. monogamous
- 8. incubation
- 9. lesion
- 10. ulceration
- 11. infection
- 12. mucous membrane
- III. Divide the class into groups of 4 and the groups act out a 10 minute skit on STD... skits are to be recorded and discussed in class.
- IV. Homework: write a one page report on a STD.

Lesson Plan II—2 days

After completing this unit 80% of the students will know what causes obesity, bulimia, and anorexia nervosa.

The students will take notes and discuss obesity, bulimia and anorexia nervosa.

The students will watch a video on nutrition and write a critique to be shared in class.

Materials:

- 1. VCR
- 2. Television
- I. Introduction: Why good nutrition?
- II. Obesity
- A. What is obesity?
- B. What are some of the feelings of an obese person?
- C. Dieting
- D. Family support
- E. Peers
- F. Treatment
- III. Bulimia
- A. What is bulimia?
- B. Signs of being bulimic
- C. Treatment
- IV. Anorexia Nervosa
- A. What is anorexia nervosa?
- B. Some causes of anorexia nervosa

- C. Signs of anorexia nervosa
- D. Parental support
- E. Treatment
- V. Video: Nutrition: Young People.

What You Are Is What You Eat.

- A. Write a critique on the video
- B. Share the critique with the class
- VI. Homework: Essay
- Suppose you were a victim of obesity, bulimia or anorexia nervosa, how do you think you may feel?
- 2. How would you relate to a friend who may have one of the illnesses?

Teachers Reading List

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- 5. The Family Handbook of Adolescence . New York: Alfred A. Knopf, 1981

Students Reading List

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- 3. Clayman Charles B. *The American Medical Association Encyclopedia of Medicine* . 270, 289, 495, 888-889, 900, 961. New York: Random House INC, 1989
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