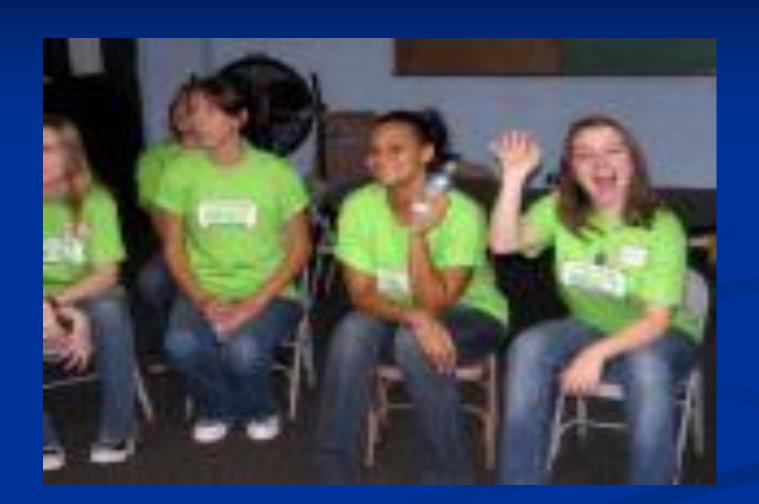
Adolescent and Faculty Health

Dr Nashwa Radwan Prof. of Public Health and Preventive Medicine



Definition

Adolescence is the period of life between puberty and full maturity. It is characterized by rapid growth and change in anatomy and physiology as well as shifting values and allegiances. It is roughly from 12 to 21 years of age.



Characteristics of adolescent personality

Although adolescent are frequently portrayed as hostile, and rebellious, they actually have many positive attributes. Adolescents are intensely idealistic and often have a passion for fairness and social justice. They are energetic and enjoy peak physical health. They tend to be optimistic about the future and excited about dreams, plans and goals.

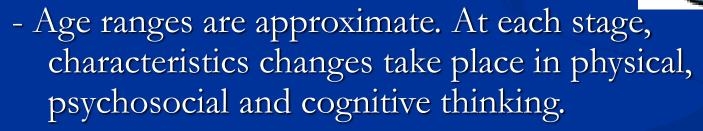
Rationale for being a priority health program:

- Adolescence is a time of dramatic physical and psychosocial developmental changes that challenge the coping skills of adolescents, families, health professionals, and communities to a greater degree than any other age.
- This transitional phase between childhood and adulthood lasts for more than a decade, beginning around age 10 years and extending through age 21 years or later. In dynamic changes three areas are of special interest:

Developmental stages of adolescence

Development is a dynamic process that continues throughout the lifespan. Adolescence is commonly divided into three developmental stages.

- Early [11-14 years]
- Middle [15 17 years]
- Late [18 –21 years]



Dynamic changes



physical changes:

The growth spurt, development of adult body physique, hormonal changes, sexual development, and the ability to reproduce come with puberty.

psychosocial changes:

Essential tasks of adolescence include emancipation from family, development of peer relationships and sexual intimacy determination of educational and vocational goals and establishment of identity and self-responsibility.

cognitive changes:

Adolescence progress from concrete operational thinking (here and now) to abstract operational thinking with a maturing ability to engage in deductive reasoning, understand risk and benefits and appreciate future consequences of current choices.

Adolescent health problems

- 1-Mortality
- 2-Morbidity:
- A-Physical problem.
- B-Mental problem.
- C-Behavioral problem.



Mortality



A-Mortality

-Injuries represent the leading cause of death among adolescents. Most of adolescent deare motor vehicle related.



- -Other traumatic causes of death include homicide, suicide, and drowning.
- -Cancer.
- -Drug abuse and alcohol.



B-Morbidity

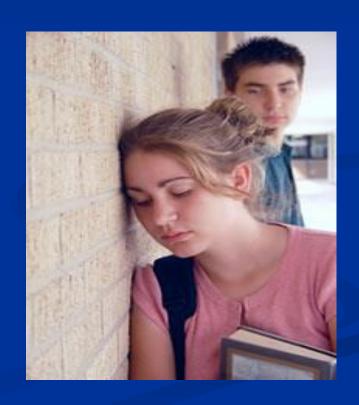
1- Physical problems

- -One in five adolescents has some form of chronic illness, deformity, or physical handicap.
- -Chronic illnesses which may responsible for delayed puberty include severe asthma and other pulmonary disorder, renal disease, cardiac disorder and inflammatory bowel disease.
- -Dental problems affect two thirds of the adolescent population.
- -Skin pathology, which includes acne, affects more than one third of adolescent population

2-Mental problems

Key Issues facing Young People

- Abuse
- Low self esteem.
- Depression.
- Anxiety.



Abuse



- What is abuse?
- Everyone has the right to be safe. Abuse is when a person acts in such a way towards someone that make him or her feel unsafe, hurt., or angry.
- Children, adolescents and elderly people do not have to deal with abuse on their own. So, they are more liable to abuse.
- There are organizations that can help and support you.

Types of abuse

- Sexual abuse.
- Physical abuse.
- Emotional abuse.

Sexual abuse

- Sexual abuse is when someone touches another or does things to him that may leave him feeling angry, hurt and probably confused.
- Abuse can be done by known and trusted people as well as strangers.
- Abuse can happen when a person is too frightened to say no, or he has thought that he had to do as he was told.
- If someone is told that what is happening must be kept a secret and that he is special because of it, then that person knows what they are doing is wrong.
- It is okay for Children and Young People not to keep secrets about being abused.
- You are not responsible or to blame for being abused, the person doing the hurting is in the wrong.

Physical abuse

It is against the law for a person to physically attack another person. Yet it is not against the law for a parent to physically punish their son/daughter, as long as it does not result in bruising/cuts/broken bones/scars.

Emotional abuse

- Abuse is not just about physical or sexual abuse but can also include bullying or making you feel small or bad about yourself.
- Adults have responsibility for their own anger. They need to control their behavior whatever the situation.

How can obtain help?

- If you are being abused, you can obtain help to prevent the abuse from occurring and support from your local Social Services.
- If you need help to deal with the emotional impact of abuse, the Child and Family Consultation service may be able to help.
- A lot of people feel worried or frightened that getting help will mean that their family is broken up or that the person hurting them will end up going to prison. Social Workers work very hard to try and ensure that children and their families remain together and they have a duty to provide families with the help they need to ensure that children can remain with their families. If someone in your family is hurting you or abusing you, then, if necessary, that person will need to leave the family, not you.

Depression: What is it?

Everyone feels low from time to time, it's part of being human, reacting to what is going on around you. Maybe a friend lets us down or we're not getting good marks for our schoolwork. Usually we bounce back and feel better in a while or decide what we are going to do about the problem.

Depression is a state where

- We feel low a lot of the time.
- It gets to the point where we want to stay away from other people.
- We have difficulty with everyday activities like eating or sleeping.
- Nothing much makes us feel better
- We tend to notice the negative things about life.
- Turn what other people say to us into criticism.
- We expect the worst to happen.
- About 5% of young people in their teens will suffer depression this badly. At its worst, it may make us feel that we want to harm ourselves

What can you do if you are depressed

Although it is common for people who feel depressed to want to hide away from others, it is important that you talk to other people about it, a friend or an adult you trust. This might be one of your parents, or another relative, or the school nurses if you are still at school.

If the problem continues, go and see your GP. GPs often do not have a lot of time for talking but he or she will know about services that they can refer you on to,

Self Esteem



- What problems can there be?
- Unfortunately we are not born with a reservoir full of self-esteem.
- Our feelings about ourselves, our value and the world are gained through our experiences.
- Crucially, how we are treated by others often determines our views of ourselves.
- Indeed persons at any age told that they are stupid, thick or ugly or who are not valued in other ways, will come to believe that this is true and that they are indeed stupid, thick and or ugly.

So what to do?

- We are all born the same, no one despite any handicap, Learn to accept it, repeat daily to yourself.
- Talk about what is worrying you to a trusted person.
- Talk about the good experiences in your life.
- Know that the period of feeling so low of mood will pass
- Eat regularly, sleep regularly
- Take up exercise swimming, yoga.
- Read self help books they were written by people who once felt like you did and look, now they are authors!
- But most importantly don't give up!

Anxiety

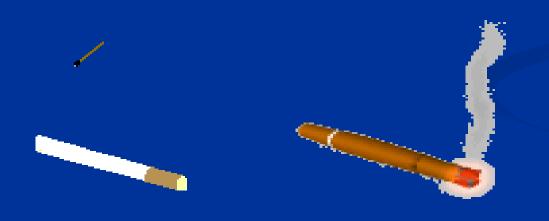
- What is stress?
- We all experience Stress at one time or another.
- It is said that moderate levels of stress may even be beneficial and helps to keep us alert and provides us with some of the energy we need to be interested in our environment.
- Indeed, some stress is needed to do things like crossing the road in safety because we are more alert to danger and our bodies are getting ready to take actions

What kind of problems can cause you to experience stress

- There are many changes for you with school exams.
- Friends may pressure you.
- Worries about future careers and qualifications.
- Perhaps you are being bullied by people at school, or by other people outside of school.
- Your mum and dad are arguing a lot or are separating.
- Your mum or dad may be seriously or long-term ill.
- Your parents are out of work and have money problems
- Someone who was important to you has died recently

3-behavioral problems

Cigarette smoking is reported by more than 10% of the population- most adult smokers begin in adolescence.



2-Drug abuse

Including the use of depressants, stimulants, hallucinogens, among this population



3-Pregnancy and sexually transmitted diseases (STDs)

- A-There is a higher incidence of infant mortality.
- B-There is a higher incidence of sexually transmitted diseases.
- C-Adolescent mothers usually are unprepared psychologically, economically and educationally for parenthood.
- D-Adolescent parents are at increased risk for failure to complete their education and to find employment, there by limiting their future economic well being.

4-Eating problems

- Preoccupation with body image and adult sexual roles had led to increase in eating problems with potentially severe metabolic side effects including death.
- The incidence of obesity also increases in adolescence, especially among adolescent girls.

- What people eat differs from one person to the other. Some people choose to follow a "healthy" diet; some people prefer "junk food". Some people eat more than they need; others eat less than they need. In most cases, these variations between people are perfectly normal.
- However some people take it to the extreme, either by compulsive overeating or by avoiding eating. This can be very dangerous to one's health and can cause some serious damage, both to one's mind and to their body.
- Both boys and girls can suffer from eating problems, but it is mostly girls that are likely to develop eating problems.

Anorexia Nervosa



- A lot of people worry about how they look, and some believe that they are overweight, even though they are not.
- Unfortunately, some people, mostly young girls, take drastic measures to reduce their weight and bodily fat. They eat very small quantities of food, usually the kind of food that does not contain any fat.
- In order to lose weight, people with anorexia nervosa will exercise too much, make themselves vomit, pretend they have eaten when they have not or even take laxatives.
- Despite sometimes appearing to be very thin, they do not believe this to be the case, and may ignore advice.

Bulimia Nervosa And Compulsive eating

- People who suffer from bulimia eat more food than they need or want, which they then try to get rid of by forcing themselves to vomit or by taking laxatives. It is not always obvious that someone is suffering from bulimia; they don't always look overweight or underweight, but their bodies can get seriously damaged.
- Some people eat more than they need over a length of time, which can make them overweight and cause them health problems. People with compulsive eating problems often eat too much to comfort themselves or to distract themselves from something threatening to their mental or physical health.

Signs of eating problems

- Eating food with low calorific content only.
- Exercising too much
- Sudden loss or gain of weight
- Skipping meals frequently



What causes eating problems?

■ There is a wide variety of possible reasons for eating problems. Usually they are the result of an underlying emotional problem. Sometimes problems at school or at home, loss of someone we care about, parents' divorce or abuse can trigger the start of eating problems.

Society has also played an important role in maintaining eating problems. The role models that most people have are thin people, portraying a "perfect" image. Young people especially are very vulnerable to that influence and some of them will do anything to look like their role model.

Adolescent health services

Are the health activities concerned with the adolescents and aimed to improvement and maintenance of their health status.



Components of adolescent health services

- Health appraisal.
- Immunization.
- Health education.
- Management and prevention of adolescent health problems



Health appraisal

- -An appraisal of health is an evaluation or assessment of the present health status.
- -It must be a continuous process from school entrance examination, the observation by teachers, to the last health evaluation in the final year of high schools

Objectives

- 1-Assessment of health status.
- 2-Case finding.
- 3-A source for health indices and statistics.

Methods of health appraisal

- Comprehensive medical examination.
- Health supervision
- Screening tests.
- Surveys.

Comprehensive medical examination

- It is recommended at each of the three stages of adolescent development:-
- Items of examination includes:-
- Physical examination: to assess physical development.
- Personal interview: to assess psycho-social development.
- Laboratory investigations: e.g. urine for suspicious drug abuse

Health supervision

Health supervision visits for adolescents differ from traditional health maintenance visits in the following:-

- 1-The provider activity complements health guidance that adolescents receive from school, family and community.
- 2-Preventive intervention target" new morbidities" such as alcohol, drugs, and sexual risk taking, rather than emphasize biomedical problems.
- 3-The provider screens for" co morbidities" which are clusters of risk taking behaviors rather than treats categorical health conditions.
- 4-Periodic health supervision visits are recommended to provide anticipatory guidance and early intervention rather than episodic visits such as those of immunization

Screening tests

Screening is the initial examination of an individual to detect disease not yet under medical care. Screening may be concerned with a single disease or with many diseases [called multiphase screening]

Screening tests among adolescents includes

- Screening for physical growth and development.
- Screening for smoking and drug abuse.
- Screening for suicidal attempts.
- Screening for sexually transmitted diseases.
- Screening for tuberculosis [regularly during childhood in high risk population].
- Screening for hypertension.

a) Screening for physical growth

- If there are no signs of puberty by age 16, delayed puberty should be evaluated. The most common causes of delayed puberty include familial short stature, constitutional growth delay, and chronic illness. In delayed puberty, the most important aspects of screening are
 - Family history.
 - Past growth pattern.
 - SMR stage.
 - Medical history.
 - Bone age radiographs.
 - Measurement of 8 A.M. serum testosterone in boys or serum follicle stimulating hormone in girls

b- Screening for drug abuse and cigarette smoking

- Primary caregivers should routinely screen adolescents for alcohol and drug abuse .Adolescent substance abuse occurs along a continuum, ranging from experimental use (a normal developmental variation) to regular use (often in a social context).
- Four questions have good ability to predict which adolescents may be at risk:
 - Do you smoke cigarettes?
 - Have you ever been suspended from school?
 - Do you have a problem with alcohol or drugs?
 - Have you ridden in a car driven by some one [including yoursen] who had been using alcohol or drugs?
 - Do you have any closet friend or a member of your family who having a problem with drug abuse?

CAGE

One of the most useful tools to screen for serious drug and alcohol problems in the CAGE series of questions:-

- C = Have you ever felt the need to cut down on your use of alcohol or drug use?
- A = Have you ever gotten **annoyed** by some one's criticism of your alcohol or drug use?
- G= Do you ever feel guilty or bad about your alcohol or drug use?
- E= Do you ever need an **eye-opener**, by a drink or drug in the morning before you go to school?
- Two or more "yes" answers have a high degree of sensitivity and specify in diagnosing substance abuse

C) Screening for suicide

Suicide attempts have been usually associated with:

- 1-Depression
- **3-Overall number of life stressors**
- 5-Increasing family conflict
- 2-Illicit substance abuse
- 4-Health risks behaviors e.g. lack of seat belt use, physical fighting, gun carrying.
- **6-Hitory of suicide in a close family member or friend.**
- 7-History of previous suicide attempt.

Two questions are widely recommended to be highly predictive for suicide risk:

- Have you felt sad or depressed for more than 3 days.
- Have you thought of killing yourself in the past 3 months.

Recognizing a suicidal adolescent is difficult, but if risk factors are present, promote intervention is essential

Adolescent surveys

An adolescent survey is a field study to define the magnitude of certain health problem among adolescents. Collected date is the basis for planning and evaluation of prevention and control programs for adolescents

-2-Immunization

Recommended immunizations for adolescents may include:-

- MR: May given at entry to secondary or high school.
- -TD: Repeat every 10 years throughout life
- -BCG: At high risk communities.



3 -Health education

- Primary caregivers have a critical role in ensuring that adolescents are competent and motivated to make wise choices as they form life long habits.
- The centers for Disease Control- Division of Adolescents and School Health selected six priority health behaviors which are major risk factors of morbidity and mortality and are highly prevalent, modifiable, and measurable. Other areas of great concern for mortality such as suicide and homicide are difficult to reduce to a single achievable behavioral goal and therefore are not addressed in the six priority behaviors.

Priority six behaviors

- Use seat belts.
- Do not drink or use drugs and drive.
- Do not have a sex.
- Do not smoke.
- Eat a low fat diet.
- Get regular aerobic exercise.



Counseling of adolescents

- Counseling is most effective if it actively engages the adolescent in problem solving. Four steps are involved.
 - **Define the problems:** Ask the adolescent to describe the situation and any feeling for fears about it.
 - **Explore the options**: Ask the adolescent to describe some ways to solve the problems, the health provider simply listens.
 - Analyze the consequences: Ask the adolescent to review the most likely positive and negative consequences of the best solution considered.
 - **Develop an action**: Ask the adolescent to identify the specific steps to take after leaving your office. Include a plan for follow up.

4-Management and prevention of adolescent health problems:

Sex – related problems

- Sex education is intended to avoid have a sex and use of contraceptives and thereby reduce the risk of unwantedpregnancy for early marriage.
- Intensive management of adolescent pregnancies may reduce the risk of low birth weight infants and post neonatal death.
- Routine adolescent care should also include pap smears and vaginal cultures for sexually active adolescent girls to screen for STDs and early cervical changes indicative of cancer.

Smoking and substance abuse

- -Educational campaigns meet with limited success, but intensive – school – based efforts may limit cigarette smoking among adolescents.
- Potential methods for prevention of substance abuse include:
 - Enforcement of drinking age laws.
 - Parental monitoring.
 - Enhancing moral rules.
- Motivating physical exercise.

Injuries

- A) Regulatory activities are more effective than educational campaigns. Such activities include the establishment of:
- 1-Drinking age laws.
- 2-Motorcycles and bicycle helmet laws.
- 3-Requirements for protective gear in athletic programs.
- 4-Regulations concerning access to firearms.



- B) Management of injuries is an essential component of an adolescent health program, which should also include:
 - Prompt access to emergency service.
 - Careful assessment of psychological status.
 - Management of injuries and drug ingestion.
 - Referral to mental health services if suicidal intent is indicated.

Improvement of adolescent health services

1-School – based and school linked clinics

Implementation of school – based and school linked health services is seen as one means to overcome barriers to health services. It ranges from professional telephone consultations with school- based personnel to comprehensive onsite health clinics that provide primary care, mental and social health services and other support. Advantages of school – based clinics include good accessibility and affordability.

2-Increased caregiver training in adolescent medicine

 Specific training programs in adolescent medicine are needed in pediatrics, family ,obstetrics, gynecology and internal medicine.

3-Expanded health care insurance

Health insurance programs may expand to improve accessibility for homeless, emancipated, out of school, unemployed, and other disadvantaged adolescents.