

Introduction to Public Health

Module # 11

Adolescent, maternal and Child health.

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ADOLESCENT HEALTH

- The term “Adolescent” is derived from the Latin word “ADOLESCERE” meaning to grow, to mature
- It is considered as a period of transition from childhood to adulthood
- They are no longer children, yet not adults. It is characterized by rapid physical growth, significant physical, emotional, psychological and spiritual changes.

ADOLESCENT HEALTH

A decorative graphic consisting of a horizontal bar with a color gradient from dark blue on the left to bright yellow on the right. To the right of the bar is a large, stylized arrow pointing to the right, filled with a brown-to-orange gradient.

- Adolescence can be defined as the developmental period between childhood and adulthood – beginning with the changes associated with puberty and culminating in the acquisition of adult roles and responsibilities.

Stages of Adolescence:



- Adolescence = 10 – 19 years
- Early adolescence = 10 – 13 years
- Middle Adolescence = 14 – 16 years
- Late adolescence = 17 – 19 years
- Young people = 10 – 24 years
- Youth = 15 – 24 years

Areas of Adolescent Development:



- **Physical:** puberty, sexual development and brain development; puberty (physical growth, development of secondary sexual characteristics and reproductive capability)
- **Psychological:** development of autonomy, independent identity and value system;
- **Cognitive:** changes in thinking patterns, moving from concrete to abstract thought

Areas of Adolescent Development:



- ***Emotional:*** negative and positive feelings connected to experiences and ideas; forms the basis of mental health, moodiness, shifting from self-centredness to empathy in relationships
- ***Social:*** relationships with family, peers and outside world. peer group influences, formation of intimate relationships, decisions about future vocation.

Adolescent Physiological Development



- **Puberty**
- Is the time of life when a young man or woman becomes capable of reproduction
- Begins when the *pituitary gland* sends a signal to the ovaries or testes to produce estrogen or testosterone sometime between the ages of 8 – 16
- Generally girls enter puberty approximately two years before boys

Adolescent Physiological Development

- Both men and women have male and female hormones, androgens and estrogens, but the *amount* is different for each sex
- Testosterone is the primary male sex hormone. It increases 10 fold in adolescent boys
Testosterone is associated with increased aggression. (ABA, 2004).

Adolescent Physiological Development

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- **Hormonal changes** cause the production of sperm in the testes for men and the maturation of the ovum and ovulation in the ovary for women.

Adolescent Physiological Development



- **Brain Development** (National Institute of Mental Health, 2001)
- Recent research indicates that the gray matter of the brain (the thinking part of the brain) has a period of overproduction just prior to puberty, possibly related to sex hormones; the frontal lobe undergoes far more changes than at any other time in development (ABA, 2004)

Adolescent Physiological Development



- MRI studies indicate that the frontal lobe of the adolescent brain which is responsible for “executive functions” such as organizing, planning, follow through, impulse control and reasoning is not fully developed until early adulthood

Adolescent Physiological Development



- For decision making, teens typically use parts of the brain responsible for “gut responses,” such as the amygdala, rather than utilizing the frontal lobe which involves logical processes, therefore adolescents cannot reason as well as adults

Adolescent Physiological Development

- **Adolescent Sleep Needs** (Carpenter, S., 2001)
- Adolescent's experience a “phase shift” in their sleep; falling asleep later due to prolonged melatonin (sleep hormone) production in teens. Melatonin drops off later in the evening as children enter into puberty.
- Sleep needs increase during adolescence to around 9.2 hours as compared to 7.5 – 8 hours needed by adults

Adolescent Physiological Development



- Most adolescents are sleep deprived putting them at increased risk of poor decision-making, accidents, and school difficulties, as well as emotional and relational difficulties.
- One solution is to delay school start times from 7: 20 am to 8:30 am, although this has met with much opposition

Adolescent Physiological Development



- **Adolescent Nutritional Needs** (Travis, S., 2001)
- Adolescent growth and development is second only to the first year of life
- Adolescents achieve the final 15 – 20 % of their adult height, gain 50% of their adult body weight, and accumulate 45% of their skeletal mass

Adolescent Physiological Development



- Because of this, adolescents have an increased demand for energy and nutrients, higher than any other time of life
- Optimum physical growth and development is linked with adequate nutrition

Adolescent Physiological Development



- Failure to receive adequate nutrition can result in stunted growth or delayed puberty
- Adolescent obesity is on the rise, predominately due to the decrease in physical activity and increased accessibility to high fat and sweetened foods

Adolescent Physiological Development



- Adult obesity is the 2nd leading cause of death (the first is tobacco related deaths)
- Eating disorders are prominent among adolescent females

Identity development



- The development of a healthy individual identity is a major task of adolescence. Young people from other cultural backgrounds face the additional challenge of deciding about their ethnic identity.(4)

Identity development



- This can lead to an identity crisis as the young person attempts to work out their affiliation to their culture of origin and their place within the dominant culture – e.g. “Am I Australian?” “Am I Greek?” “Can I be both?” It can also give rise to potential conflict with their family who may fear losing control of the adolescent.

Identity development



- Culture is a powerful influence on the development of one's identity.

Identity development



- For example, non-Western cultures generally place less emphasis on the importance of the individual – the family and ethnic identity are valued above the attainment of an individual identity, and play a central role in shaping the development of the adolescent's identity.

Identity development



- The way in which adolescents resolve these ethnic identity conflicts has important implications for their mental health.(4) Young people who manage to retain the most important elements of their ethnic culture, while developing the skills to adapt to the new culture, appear to cope best in their psychosocial adjustment.

Health problems among Adolescence



- Early pregnancy and childbirth.
- STIs—HIV/AIDS.
- Accidents and Injuries of all kinds
- Mental health problems including depression and suicide.
- Violence and family trouble.
- Alcohol, tobacco and other drugs abuse
- Irresponsible Sexual act problems
- Under nutrition and obesity over weight.
- Unhealthy life style
- Violations of rights of adolescents.
- Antisocial activities etc

Maternal and child health



- Maternal & child health is one of the important elements of primary health care. Maternal & child health refers to promotive, preventive, curative & rehabilitation health care for mothers & children

Safe Motherhood



- Safe motherhood is one of the important components of Reproductive Health. It means ensuring that all women receive the care they need, to be safe and healthy throughout pregnancy and childbirth. It is the ability of a mother to have safe & healthy pregnancy & child birth.

The Safe Motherhood Initiative was launched by the World Health Organization (WHO) and other international agencies in 1987. It is aimed to overcome woman's mortality from complications of pregnancy and childbirth in developing countries. It ensures prenatal, intra natal and postnatal services and supervision.

Safe Motherhood




- For making motherhood safe, WHO has recommended four strategic intervention which should be delivered through PHC on the foundation of equity for women:
 1. Family planning
 2. Antenatal care
 3. Clean/safe delivery
 4. Essential obstetric care

Maternal Health care



- Maternal health care consists of :
- 1. Antenatal care
- 2. Intranatal care
- 3. Postnatal care

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- A pregnant woman is a Dyad: a unit of 2 individuals, mother and the foetus.
 - It starts after conception and continues through the antenatal and postnatal periods.
 - The unity is : a) Biological b) Epidemiological
 - c) Social d) Operational

Health problems among the children

- ❖ Infectious Disease— DD,Pneumonia parasitic infestation etc.
- ❖ Deficiency diseases—undernutrition, Iodine deficiency etc.
- ❖ Childhood Obesity
- ❖ Drug Abuse
- ❖ Smoking
- ❖ Child Abuse and Neglect
- ❖ Breathing problems
- ❖ Accidents
- ❖ Poisoning etc.

Maternal health Problems



- ❖ Anxiety
- ❖ Depression
- ❖ Sexual violence/abuse
- ❖ Sexually transmitted Infections (STIs)
- ❖ Tobacco, alcohol, and substance abuse
- ❖ Imbalance nutrition
- ❖ GDM
- ❖ APH (Ante Partum hemorrhage)
- ❖ PPH (post partum Hemorrhage)
- ❖ Abortion
- ❖ Premature birth
- ❖ Still birth
- ❖ Low birth weight
- ❖ Child birth complications etc.



• THANK YOU