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## UNIT 7 ADOLESCENT HEALTH CARE AND LIFE CYCLE APPROACH

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### 7.1 INTRODUCTION

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In earlier units of this block, you have read about reproductive healthcare, maternal healthcare and child healthcare. Here, you will read about the most crucial stage between childhood and adulthood i.e. adolescence. You might have seen adolescent boys or girls and likewise you must have passed through your own adolescence. What is adolescent healthcare and what are its associated issues and challenges? There is around 1.2 billion adolescent population worldwide whereas India's adolescent population is 243 million (more than 20 percent) which shows a sizeable number and their healthcare can play a significant role in development. The significance of adolescent health can also be analysed through the following important indicators of World Health Organisation (WHO): Globally it has been observed that a) 44 births per 1000 to girls aged between 15 to 19 per year b) half of the mental health disorders starts by the age of 14 c) high mortality of adolescents recorded every day, mostly from preventable or treatable causes d) increasing injuries among this group, and the risk of HIV and diarrhoeal diseases. Hence, these facts about adolescents have serious social, economic, and public health implications. Adolescents are not a homogenous group. Their situation varies by age, sex, marital status, class, region, and cultural context.

After studying this unit you should be able to:

- a) explain the concept and importance of adolescence,
- b) discuss the significance of adolescent health and life cycle approach,
- c) analyze adolescent health problems and health implications,
- d) describe the adolescent reproductive and sexual health services.

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### 7.2 CONCEPT AND PHASES OF ADOLESCENCE

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Many development psychologists consider the phase of adolescence as a period between 13 and 18 years of age, while some put it between 10 and 19 years, and others extend it up to 24. However, there is a growing consensus in favour of not

associating adolescence with a precise number of years. Age, alone, is not sufficient to determine membership in the adolescent group. Whereas, the World Health Organization (WHO) assigns an age parameter of 10 to 19 years, it also defines adolescence as the progression from appearance of secondary sex characteristics (puberty) to reproductive maturity, development of adult mental processes and adult identity, and transition from total socio-economic dependence to relative independence. Adolescence is usually divided into three phases. It must be noted here that there is a great deal of overlapping among these three phases, as development rarely takes place in strict conformity with a set of norms. The three phases are described as follows:

- i) **Early adolescence (10-13 years):** This stage is also known as the pre-adolescence period, and is characterized by a spurt in growth and the beginnings of sexual maturation. This spurt may occur differently in different individuals. Gender differences in height may be seen at this time. Girls, during this period, are generally taller and slightly heavier than boys.
- ii) **Mid-adolescence (14-15 years):** Mid-adolescence is a period when the main physical changes are completed. Each adolescent develops a stronger sense of self-identity and relates more strongly to his or her peer group. This phase of development is a time for experimentation in the spirit of adventure. An adolescent starts defining his or her relation to himself or herself, the opposite sex and peer groups, although families usually remain important. Thinking becomes more reflective. Mental organization becomes more complex, emotions become deeper and tenser, and there is a sense of finality in choices.
- iii) **Late adolescence (16-19 years):** This is a period when the body fills out and takes its adult form. In this period, adolescents develop distinct identity and more settled ideas and opinions. Adolescents by this time are able to define life goals, although economic dependence on parents may continue for many years. During this phase they develop a more consistent framework of values, morals and ethics, and are able to think abstractly. They have different needs according to their stage of development and their personal circumstances. They, however, require a system of graded support from parents and society that will enhance the gradual development of their powers to cope with the roles they are expected and ready to play. Some adolescents are especially vulnerable or hard to reach, and are in need of extra support.

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## 7.3 LIFE CYCLE APPROACH AND IMPORTANCE OF ADOLESCENT HEALTH CARE

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### 7.3.1 Life Cycle Approach

A life cycle is a series of stages (the course of developmental changes) through which an organism passes from its inception. It is a progression through a series of differing stages of development. As such, the life cycle approach to child development is a philosophy that encompasses all actions essential for preparing for future, ensuring optimal growth development that, in turn, should lead to responsible adulthood. This is an approach to child and adolescent development, caring for the most critical intra uterine growth, the vulnerable first six years of life, and the most neglected adolescent period. As stated above, each adolescent passes through three stages, early adolescence, mid-adolescence and late

adolescence. Whereas most adolescents pass through all these stages continuously and spontaneously, many of them confront problems and all of them experience certain critical concerns.

Most of these problems and concerns not only impact the adolescents as individuals but also have significant public health implications. Adolescents have certain well-defined needs which are now increasingly being recognized. We need to address the identified risk factors and holistically address the needs of the adolescents to make a dent on these and other public health concerns. It is important to recognize that many of the identified risk factors can be understood, and their impact reduced or even neutralized only when adolescents are empowered by making them well-informed and, developing in them, relevant life skills. There is growing evidence that access to age and sex appropriate information and health and counselling services is necessary; however, information alone is not sufficient to prevent problems. In addition to information, they need life skills to translate their knowledge into informed decisions, in order to remain healthy. It is to be remembered that good health among adolescent is important for healthy motherhood. Healthy motherhood leads to healthy children, and, healthy children grow into healthy adolescents. This completes the life cycle.

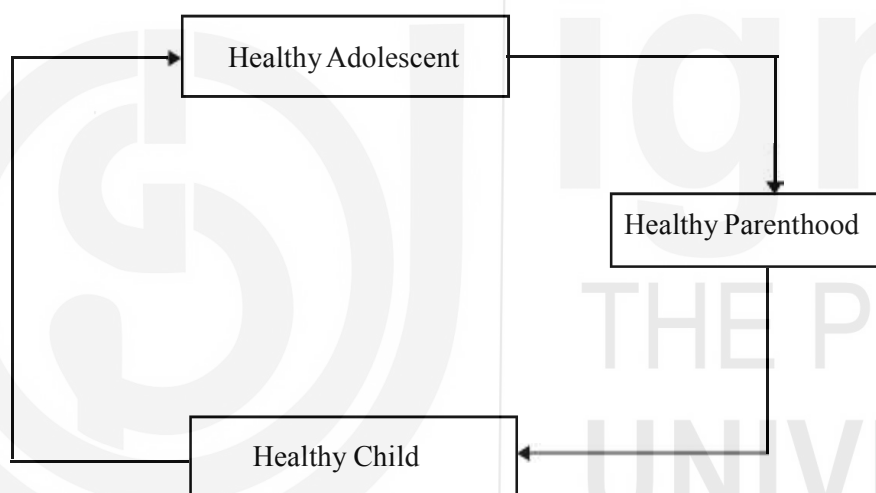


Figure-1: Life Cycle Approach

### 7.3.2 Importance of Adolescent Health Care

The general impression that adolescents are healthy people is somewhat wrongly placed. In fact, studies have come out with facts about problems related to adolescent health. We need to pay attention to the health needs of adolescents for the following reasons.

- a) Reduce incidence of deaths and diseases, now and during their future lives.
- b) Ensure that the rights of adolescents to health care, especially reproductive health care are well-protected.
- c) Ensure that this generation of adolescents will, in turn, safeguard the health of their own children.
- d) Influence the health-seeking behaviour of adolescents as their health status will be central in determining the nation's health, mortality and morbidity ~~in them~~ and the population growth scenario in the country.

- e) Focus on public health challenges for adolescents that include adolescent pregnancy, excess risk of maternal and infant mortality, sexually transmitted infections (STIs) and reproductive tract infections (RTIs), and the rapidly rising incidence of Human Immuno-Deficiency Virus (HIV) infection in this age-group.
- f) Make sure that adolescents do not suffer from malnutrition and anaemia. Anaemia, especially among adolescent girls, can get worse during pregnancy. Ill-health among adolescent girls has profound implications for maternal, neonatal, and infant mortality
- g) Guarantee access to sexual and reproductive health services to all adolescents as a human right, based on the equality of men and women.

In this section, you have studied the concept and phases of adolescence, importance of adolescent health care, and the life cycle approach to adolescent development. Now, answer the questions given in Check Your Progress-1.

**Check Your Progress 1**

**Note:** a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

- 1) What are the different phases of adolescent period?

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- 2) What is the significance of adolescent health?

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- 3) What is the life cycle approach?

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## 7.4 PHYSIOLOGICAL ISSUES OF ADOLESCENCE

Adolescence is the period during which accelerated physical growth and development occur. Prior to this phase, children go through a brief period known as pubescence, which encompasses the physical changes that lead to puberty. A sudden increase in the activity of the pituitary gland starts production of sex hormones which are known as progesterone and oestrogen in females and testosterone in males. These hormonal changes result in the development of secondary sexual characteristics among both male and female children.

### 7.4.1 Physical Growth and Development in Males

The physical growth and development that occur in adult males are outlined below.

- i) **Growth spurt:** The growth related changes occur when a boy is around 12 years of age and are observed in the growth of arms, legs, and penis. He also gains weight. The age for completion of this growth ranges from 12 to 16 years. The spurt in height occurs relatively later in boys than in girls, between ages 11 to 13 years. The body also fills out and changes shape. A boy's shoulders grow wider and the body becomes more muscular. A bit of breast growth on the chest is also noticed. This is normal and goes away for most boys by the end of puberty.
- ii) **Growth of testes and scrotum:** The growth of testes and scrotum usually begins between the ages of 10 to 13 years. The development continues through most of puberty and is completed sometimes between the ages of 14 to 18 years. Along with increasing growth of the testicles, reddening, and wrinkling of scrotal skin occurs. The testes are the male reproductive glands and produce sperms and the male hormones. With the generation of sperms, males become capable of fathering a child.
- iii) **Straight pubic hair appearance:** The appearance of pubic hair around the penis and scrotum is usually an early event during puberty. It occurs during the ages of 10 to 15 years. Pubic hair becomes darker, coarser and curlier as it spreads over the scrotum and higher up the abdomen. Straight pubic hair appears before the first ejaculation (nocturnal emission), but pubic hair becomes kinky after this milestone is reached. The first ejaculation usually occurs about a year after testicular growth.
- iv) **Voice change:** During the adolescence period in boys a significant development in the form of deepening of the voice happens due to the enlargement of the larynx, also known as the voice box. The production of testosterone in boys causes the larynx to grow and the vocal cords to get longer and thicker. As the body adjusts to the changes, the voice may "crack" or "break". But this process lasts only for a few months. Once the larynx has finished growing, the voice will not make unpredictable, funny noises any more. The deepening of the voice occurs relatively late in adolescence and it is often a gradual process.
- v) **Growth of body hair:** Body hair generally appears a couple of years after the growth of pubic hair. The hair grows on the chest, the armpits and on the face. It is one of the body's many ways of telling that the boy is entering adolescence.

- vi) **Activation of oil and sweat glands:** Oil and sweat glands are activated and this occurrence leads to the development of body odour and the appearance of acne. Body odour and acne are common concerns for many adolescents.
- vii) **Growth of facial hair:** Facial hair begins to grow at about the time the auxiliary hair appears. There is a definite order in which the facial hair (moustache and beard) appear. To begin with the facial hair, it grows at the corners of the upper lips. Then these spread to form the moustache over the entire upper lips. This is followed by the appearance of hair on the upper part of the cheeks and the area under the lower lips. These eventually spread to the sides and lower border of the chin and the rest of the lower face.

#### 7.4.2 Physical Growth and Development in Female

The physical growth and developments that occur in girls are given below.

- i) **Growth spurt:** The growth spurt among girls usually starts at about 10 years of age and peaks at 12. It ends at around 14 years of age. Any further noticeable growth in stature stops at 18. At the end of the growth the average girl of 14 years already reaches 98 per cent of her adult height. Besides, the body of a girl usually becomes curvier. Girls also gain some weight.
- ii) **Breast budding:** With the onset of puberty, breast development begins among girls. This starts between 8 to 13 years and is completed between 13 to 18 years, though in some cases a girl's breasts may continue to grow in her early 20s.
- iii) **Growth of bony pelvis:** Girls have a wider pelvic outlet at birth, so that the natural adaptation for child bearing is present in them from the a very early age. The growth of the bony pelvis primarily involves the widening of the pelvic inlet and broadening of the hips.
- iv) **Pubic hair appearance:** Pubic hair begins to grow between 11 to 12 years of age and the growth is completed by 14. Pubic hair appears after the period of maximum growth in height. This development indicates that the first menstruation is approximately 6 months to 1 year away.
- v) **Growth of body hair:** Another physical change that occurs among adolescent girls is the growth of underarm hair and coarser body hair. The ultimate amount of body hair an individual has seems to depend largely on heredity.
- vi) **Activation of oil and sweat glands:** The activation of glands causes the appearance of acne and development of body odour among girls. This has been explained above in the section on male physical growth and development.
- vii) **First menstrual period or menarche:** Menstruation is a monthly event that happens in every woman. It is a normal function of a healthy female body and is also called menarche. Generally, the age range for menarche may vary from 9 to 18 years. It usually begins 18 months to 2 years after the start of breast development. The ovaries produce ova (egg cells). Each of the two ovaries holds thousands of egg cells which are tiny, no bigger than the tip of a pin. During the menstrual cycle, one ovum matures and ripens every month and is released by the ovary. This is called ovulation and it occurs around mid-cycle. The ovum travels down the fallopian tubes into the uterus. Before the ovum leaves the ovary, the uterus builds up its inner

lining with extra blood and tissue. If it meets with sperm in the way, it is fertilized and conception takes place. But when it is not fertilized, the uterus no longer needs the extra blood and tissue. The uterus, therefore, begins shedding its lining and blood flow starts. Menstrual flow consists of blood, mucus, and fragments of lining tissues. In India the average age of the first menstrual period is 13.7, and it is important to note that this age is gradually advancing. Menstruation occurs at an average interval of 28 days + 3 days. It lasts for about 2-3 days and in some cases 4-5 or 7-8 days.

**viii) Completion of the growth of uterus and vagina:** Although the growth and development of the uterus and vagina start early, their growth is the last to be completed. The musculature wall of the uterus becomes larger and elaborate. This is designed to accommodate the fetus during pregnancy, as well as to expel the fully developed baby during childbirth. The vagina becomes larger and its lining grows thicker. At birth, the ovary is a fairly complete organ.

### 7.4.3 Emotional and Social Changes

Adolescence is often described as a period of great excitement and emotional development. The changes that take place in adolescents result in sudden upsurge of sex feelings in them. Growing adolescents may experience sexual excitement from simply watching and being near to someone they are attracted to. It is a time, also, of frequent shifts of moods for most adolescents. Discomfort and concern about changes in their bodies and feelings may cause emotional stress. Some of them become irritable, restless, angry, and tense due to hormonal imbalance. The whole process is presumed to be emotionally stressful and give rise to the types of behaviour described below.

- i) Pre-occupation with body image:** Body image is an individual concept of how one's body appears to self and others. It also refers to the way a person feels about his or her physical appearance. Although the size, shape, colour of skin, height and some other characteristics of the body are mainly determined by heredity conditions and natural environment, the formation of the body image is influenced by the socio-cultural factors. The media and the role models promoted by electronic media in particular, have a predominant impact on the concept of body image of adolescents. Many of them feel concerned, if the shape and size of some part of their body is not in consonance with their image of an ideal man or woman.
- ii) Desire to establish own identity:** At this stage adolescents try to define themselves and establish their personal identity. Personal identity is the awareness one has of oneself as a consistently whole person. The establishment of identity is a gradual process. As adolescents mature physically, they normally develop a stronger sense of personal identity developed during early childhood. They tend to assert and take their own decisions about their needs, interests, abilities, and vocations. During this phase of experimentation, adolescents are expected to develop a gender role identity, a positive body image and a sense of self-esteem and self-confidence
- iii) Other critical changes:** Besides other critical changes such as, fantasy or day dreaming, attention seeking behaviour, sexual attraction, curiosity and inquisitiveness, concrete thinking, self-exploration, and evaluation,

distancing from parents, and conflicts with family over control, there is dependence on peer group which defines behavioural codes and the formation of new relationships which have decisive impact on adolescents.

### 7.4.4 Development and Health Implications during Adolescence

Adolescents are often under psychological stress as they become more and more independent and assertive as part of their growing up. They also undergo sexual development and often end up with the risk of unprotected sex resulting in (i) diseases related to reproductive tract infections and sexually transmitted diseases, and (ii) risk of unwanted pregnancy and induced abortion.

The following chart may help you to visualize some of the health implications during the adolescent period due to the physical changes taking place within the body.

**Chart on Physical Changes & Health Implications during the Adolescent**

| <b>Physical Changes</b>                         | <b>Health Implications</b>                                                                                                                              |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Normal growing-up                               | Anxiety and tension                                                                                                                                     |
| Increase in height and weight                   | Increase nutrition requirement, if inadequate, malnutrition and anaemia                                                                                 |
| Breasts development                             | Stooping of shoulders, poor posture, back pain                                                                                                          |
| Skin become oily                                | Acne                                                                                                                                                    |
| Desire to be thin, have a good figure           | Protein-energy malnutrition, anaemia, stunting                                                                                                          |
| <b>Sexual Development</b>                       | <b>Health Implications</b>                                                                                                                              |
| Desire to have sex                              | Unsafe sex leading to unwanted pregnancy STIs, HIV; need of health education and services                                                               |
| Ejaculation                                     | Fear, guilt, emotional problems                                                                                                                         |
| Menstruation                                    | Dysmenorrhoea (pain), menorrhagia (heavy bleeding), anaemia, lack of menstrual hygiene may lead to infections.                                          |
| <b>Emotional Changes and Social Development</b> | <b>Health Implications</b>                                                                                                                              |
| Development of identity                         | Confusion, moodiness, irritability                                                                                                                      |
| Very curious                                    | Experimentation, risk-taking behaviour                                                                                                                  |
| Peer pressure                                   | Effect on lifestyle:<br>a) unhealthy eating habits leading to obesity<br>b) Smoking and alcohol use leading to ill-health<br>c) Rash driving, accidents |

### 7.4.5 Special Attention Group

It is worth mentioning that adolescents are a diverse group who undergo various types of psychological, physiological and social changes. The concerns of different



groups of adolescents may not be the same. For instance, boys and girls, married and unmarried, urban and rural adolescents have different issues of interest and concern. Social circumstances can influence personal development. The sexual and reproductive health service needs of adolescents are correspondingly heterogeneous. For instance, adolescents who are not yet sexually active have different needs from those who are sexually active. Similarly, needs vary from those experiencing unwanted pregnancies or infection or those who have been forced into sexual relationships. It is, therefore, important to be aware of the diversity of sexual and reproductive health needs of adolescents and tailor our responses as health educators to their specific needs. In addition, adolescents may also be categorised as:

- i) out of school adolescents and street adolescents
- ii) sexually abused adolescents
- iii) commercial sex workers
- iv) adolescents with mental and physical disabilities
- v) orphan adolescents, i.e., those in foster care and institutions
- vi) adolescents in conflict with the law
- vii) working adolescents

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## 7.5 ADOLESCENT HEALTH PROBLEMS AND HEALTH EDUCATION

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Some health problems during adolescence are outlined below.

- i) **Sexual and reproductive health problems:** Adolescents confront a number of sexual and reproductive health problems that have been ignored for a long time. Quite a few of them enter into irresponsible sexual relations, one of the major risks of which has been the spread of HIV/AIDS among adolescents and young people. Over 35 per cent of all reported AIDS cases in India occur among young people in the age-group of 15 to 24 years and more than 50 per cent of the new HIV infections occur also among young people (NACO, 2005). Yet another problem, particularly among girls, is sexual harassment in public spaces, institutions of education, in and around home, and, at the workplace is a well-established fact. Child abuse, bullying, and ragging are also common, and, more so among boys. This is reinforced by the gender stereotype that men/boys are naturally or hormonally violent and, hence, justified in exerting force over women/girls.
- ii) **Complications of adolescent pregnancy:** Biologically, an adolescent girl's body which is still in the developing stage is not prepared to take on the added strain of pregnancy and childbirth. The pelvic bones are not mature enough to bear the burden of delivery. As it is, her body requires special nutritional needs during adolescence; and, it becomes an additional strain on a young girl, as she may not be mentally prepared for motherhood with all its added responsibilities, which could result in problems like depression. Some of the complications related to pregnancy that occur more commonly in adolescents than in adults are pregnancy induced hypertension and anaemia.

- iii) **Substance abuse:** Tobacco and alcohol use among young people is a matter of concern. The projected number of drug abusers in India is about 3 million, and most are in the age-group 16 to 35 (UNODC, 2003). Nearly 11 per cent were introduced to cannabis before the age of 15 years and about 26 per cent between the age of 16 to 20 years (UNODC and the Ministry of Social Justice and Empowerment, 2004). Findings from NFHS-3 show that 40 per cent of young men and 5 per cent young women in the age-group of 15 to 24 had ever used tobacco, while 20 per cent of young men and 1 per cent in the age-group of 15 to 24 of young women had ever consumed alcohol.
- iv) **Injuries and accidents:** A major threat to adolescent health is injury. Apart from the significance of being a leading cause of death in young people, injuries are also recognized as a major contributory factor to morbidity, disability, and health care and other costs such as loss of future work and quality of life. Among unintentional injuries, fatalities from road traffic accidents (RTA) are quite prevalent.
- v) **Acute and chronic diseases:** The diseases like asthma, TB (tuberculosis), diabetes, etc. also affect adolescent health.

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## 7.6 ROLE OF HEALTH CARE PROVIDERS AND ADOLESCENTS HEALTH

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Health care service is very essential for adolescents. Health services can help to meet adolescent needs, only if they are part of a comprehensive programme. Some of the factors that facilitate adolescent health are outlined below.

- i) Safe and supportive environment that offers protection and opportunities for development, such as education, nutrition, physical development, mental/emotional development, vocational training
- ii) Information on the adolescent growth process and training in skills to understand and interact with the outside world
- iii) Training and development of life skills for problem identification, decision making, and problem solving and negotiation skills
- iv) Health services and counselling to address health problems and to deal with personal difficulties. Health service providers cannot meet all these needs alone. They can join or create networks that act together and maximize resources
- v) The inter-sectoral approach is best – education and health sectors should work together

Other essential conditions required for the effective health care services delivery to adolescents are presence of trained counsellors, adequate space and privacy, affordable services, availability of accurate information, treatment with dignity and support, and non-judgemental service providers.

### 7.6.1 Role of a Healthcare Provider in Promotion of Adolescent Nutrition

The health care provider holds a key position in advising the adolescent about good nutrition. He should promote healthy lifestyle, physical exercise and eating

practices. Activities like individual nutritional assessment, detection and treatment of micronutrient deficiency, management of severe under-nutrition, antenatal nutrition education and management of clinical condition should be undertaken in an adolescent clinic or even in schools and communities. Remember that the nutrition of an adolescent is a major determinant of the future health of the societies in which they live. A summary of education on nutrition for adolescents would include the points below.

- i) Highly fatty foods should be avoided.
- ii) Adolescents should be encouraged to exercise their choice and responsibility of foods.
- iii) The diets of girls needs special emphasis on iron rich food, like leafy vegetables, whole gram, cereals, dry fruit, egg, jaggery etc. The iron requirement is high because of menstrual losses and growing phase.
- iv) Adolescents also need high amounts of calcium in diet because their bones are growing and getting mineralised.

### 7.6.2 Role of Healthcare Providers for Adolescent Health Care at Community Level

Health care providers must educate communities to provide education on the importance of adolescent nutrition, and, influence adverse socio-cultural practices. Education regarding balanced diet for both boys and girls should focus on the following:

- i) importance of nutrition for adolescents themselves and of their offsprings
- ii) good food selection and safe cooking practices
- iii) concept of kitchen gardens, where green leafy vegetables, etc., can be grown at a very low cost
- iv) awareness in communities of factors that contribute to malnutrition and nutritional anaemia, especially in girls
- v) awareness in communities about the role of malaria and hookworm infestation in causing and aggravating anaemia-

**Table 7.1: Proposed Service Delivery Provision at the L-level of Sub-Centre and PHC/CHC**

| Level of centre care | Service Provider | When                            | Services                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sub-centre (SC)      | HW (F)           | During routinesub-centreclinics | <ol style="list-style-type: none"> <li>a. Enrol newly-married couples</li> <li>b. Provision of spacing methods</li> <li>c. Routine ANC care and institutional delivery</li> <li>d. Referrals for early and safe abortion</li> <li>e. STIs/HIV/AIDS prevention education</li> <li>f. Nutrition counselling including anaemia prevention (management)</li> <li>g. TT Immunization</li> </ol> |

|                                                            |                                          |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Health Centre (PHC)/ Community Health Centre (CHC) | Health Assistant (F)/LHV Medical Officer | Once a week: Teen Clinic will be organized at ---PHC for 2 hours | <ul style="list-style-type: none"> <li>a) Provision of contraceptives</li> <li>b) Management of menstrual disorders</li> <li>c) RTI/STI preventive education and management</li> <li>d) Counselling and services for pregnancy termination</li> <li>e) Nutritional counselling and treatment of anaemia</li> <li>f) Counselling for sexual problems</li> <li>g) TT Immunization</li> </ul> |
|------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

In this section, you have studied the physiological issues of adolescence, adolescent health problems and health education, and the importance of health services for adolescents. Now answer the questions in Check Your Progress 2.

**Check Your Progress 2**

**Note:** a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What health problems are experienced during adolescence?

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2) What are the major complications of adolescent pregnancy?

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**7.7 AWARENESS OF ADOLESCENT HEALTH CARE**

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The adolescent stage has immense potential which must be educated to utilise their energy for productive purposes. Often this energy is wasted in violence and non-productive activities. Through *Yoga* it can be transformed for their growth and development. Here, you will study two major components (a) significance of yoga for adolescents and (b) the role of extension educator to promote adolescent health both for male and female adolescents.

### 7.7.1 Significance of Yoga for Adolescents

As you have read in the earlier section, adolescent stage indicates major changes in physiological conditions and requires adolescents immense energy. Channelling this energy in the right direction, awareness about adolescent health care can play a significant role in their rapid growth and development. There are multiple benefits to reduce stress by rejuvenating through various *asanas* and breathing based *yogic kriyas*. Studies reveal five-dimensional benefits -- physical fitness, emotional strength, educational development, mental calmness, and social integration. In Indian tradition *yogic kriya* was part of education system which has been forgotten with the influence of modernisation and westernisation. The following benefits are suggested for adolescents and teenagers, through yoga *asana*.

- I) **Management of Body Mass Index (BMI)** – Changed food habits and lesser physical activity resulted in obesity and enhanced other disorders related to collection of unsaturated fat in body. Teenagers can also gain weight due to hormonal changes. The practice of yoga can prevent weight gain. *Badhakon asana* (butterfly pose) improves body mass index. It has also been observed that stress leads to over eating which results in weight gain. Similarly, *adho mukha úvânâsana* (downward facing dog), *tadasana* (mountain pose), *virabhadrasana* (warrior pose) enhances physical and emotional capability. Yoga engages you physically, and in a safe manner when practised right. It also helps to build bone and muscle strength.
- II) **Promotes Better Posture and Self Image**– Posture is an indicator of good health and attractive personality which adolescents aspire to be. Yoga enables one, through *agnistambh asana* (fire log pose), *taadasana* (mountain pose), *vrikshasana* (tree posture), *navasana* (boat pose) to have better body posture. School going children who carry heavy backpacks are prone to bad posture and spine problems. These yoga asanas are helpful to maintain an upright posture. It is also useful for self-image particularly among teenagers. Yoga asana like, *utthita trikonasana* (triangle pose), *balasana* (child’s pose), *paschimottan asana* (seated forward bend), are very useful for good posture. These Yoga *asanas* promotes self-awareness and self-image, which helps teenagers to overcome their poor self-image.
- III) **Improved Mood And Cognitive Functioning** – Adolescent stage is-brings rapid changes in cognitive functioning (memory, academic performance) and social relationships, influencing their mood and motivation. For effective output of these functions few asanas are very supportive, such as, *bhujang asana* (cobra pose). It also improves-removes stress, anxiety, and fatigue. A few other breathing *asanas* also improve an adolescent’s performance in tests, study and overall cognitive development.
- IV) **Emotional Strength and Stress Management** – Today stress is a common challenge for all, particularly more among teenagers. Yoga is considered a stress reliever. A few *asanas* like *Uttan asana* (standing forward bend), *utthita trikon asana* (triangular pose), *shavasana* (corpse pose) are very effective along with breathing techniques to regulate not only energy in the body but also stress management.
- V) **Improves Breathing and Concentration** – The breathing exercises in yoga improve concentration. *Pranayam*, *badhakonasana* (butterfly pose), *anulom-*

*pratiloma kriya* are important breathing exercises and strengthen emotional well-being. *Pranayam* teaches five different types of right breathing techniques- *samanya pranayam* (watching breath inhalation and exhalation), *ujjayi pranayama* (victorious breath), *nadi shodhana pranayama* (alternate-nostril breathing), *kumbhaka pranayama* (breath retention), *kapalabhati pranayama* (breath of fire or skull-shining breath). The right breathing exercises / *asana* prepares teenagers to promote mindfulness and complete relaxation. As they grow into healthy adults, teenagers who practice yoga will also be able to enjoy happiness with concentration and inner wellness.

### 7.7.2 Role of an Extension / Health Educator in the Promotion of Adolescent Health

The perceived role of an extension / health educator in the promotion of adolescent health in general and women's health in particular is given below.

- i) **Spreading messages about the ill-effects of adolescent pregnancy:** This would include various aspects of pregnancy and childbirth which carry more risks in adolescents than in adults, because adolescent girls are not yet mature physically and emotionally for motherhood. The higher maternal mortality in adolescents is among those aged 15 years and under. The risk of poor pregnancy outcome is more common in adolescent pregnancy than among adults. Babies born to adolescent mothers have a higher risk of being of low birth weight. Unintended pregnancy among both married and unmarried girls may prompt them to resort to illegal and unsafe abortions. This is more pronounced in unmarried girls. Pregnancy and the responsibility of child-rearing could reduce the ability of the girl to continue with her education and employment opportunities.
- ii) **Spreading messages about prevention of anaemia among adolescents:** There are five essential messages for prevention of anaemia during adolescence.
  - a) educate mothers regarding balanced diets for both boys and girls
  - b) create awareness in communities about factors contributing to malnutrition and nutritional anaemia in girls
  - c) involve other functionaries like AWW, school teachers, ANM/ male workers to identify and tackle nutritional problems
  - d) create awareness among communities about the role of malaria and hookworm infestation in causing and aggravating anaemia
  - e) promote management of malaria, hookworm infection and tuberculosis etc.
- iii) **Spreading messages on signs and symptoms of diseases of reproductive tract. These would comprise:**
  - a) for both adolescent boys and girls: Genital sores, burning sensation while passing urine, swelling in the groin, itching in the genital region
  - b) for adolescent girls: unusual vaginal discharge, pain in lower abdomen, pain during sexual intercourse
  - c) for adolescent boys: discharge from the penis.

- iv) **Spreading messages for prevention of RTIs and STIs:** This would include issues such as
- a) maintaining proper genital hygiene and menstrual hygiene is important for girls
  - b) practicing responsible sexual behaviour by practicing safe sex by using contraceptives
  - c) by not neglecting any unusual discharge (from private parts of the body)
  - d) seeking help early
  - e) ensuring complete treatment of self and sexual partner's treatment
  - f) opting for institutional delivery or home delivery by a trained birth attendant
  - g) availing safe abortion services
  - h) assisting in monitoring of utilization of health services by assessing increased number of adolescents coming to clinic, reduction in teenage pregnancy, and increase in ante-natal care coverage ~~in the~~ during pregnancies.

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## 7.8 LET US SUM UP

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Adolescence is the phase of life which is characterized by physical, psychological, and behavioural changes bringing about transformation from childhood to adulthood. These changes that occur during adolescence are vital to their development as adolescents are at vulnerable to health risks and their implications due to their nature of experimenting and exposure to limited information. It is important to identify health related issues and the concerns of adolescents for investing in adolescents' health and development so as to make them responsible adults. The health services need to be gender-sensitive and more empathetic towards adolescents to deliver adolescent-friendly reproductive and sexual health services.

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## 7.9 REFERENCES AND SELECTED READINGS

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## 7.10 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

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### Check Your Progress 1

- 1) What are the different phases of adolescent period?

**Answer:** Phases of adolescent age-group are: (i) Early adolescence (10 to 13 years): is characterised by a spurt of growth, and the beginnings of sexual maturation. (ii) Mid-adolescence (age 14 to 15 years): the main physical changes are completed, while the individual develops a stronger sense of identity and relates more strongly to his or her peer group, although families usually remain important. Thinking becomes more reflective. (iii) Later adolescence (age 16 to 19 years): the body fills out and takes its adult form, while the individual now has a distinct identity and more settled ideas and opinions.

- 2) What is the significance of adolescent health?

**Answer:** We need to pay attention to the health needs of adolescents to: Reduce death and disease, now and during their future lives. Deliver on the rights of adolescents to health care, as adolescents are central in determining India's health, mortality and morbidity and the population growth scenario in the country. Ill-health during adolescence has profound implications for maternal, neonatal, infant and child health.

- 3) What is the life cycle approach?

**Answer:** The life cycle approach deals with life skills, which are a group of psycho-social competencies and interpersonal skills that help people make informed decisions, communicate effectively, and develop coping and self-management skills, to lead a healthy and productive lives. Life skills may be directed toward personal actions or actions toward others, as well as to actions to change the surrounding environment to make it conducive to health.

### Check Your Progress 2

- 1) What health problems are experienced during adolescence?

**Answer:** (i) Sexual and reproductive health problems (ii) Nutritional problems (iii) Substance abuse (iv) Injuries and accidents (v) Acute and chronic diseases (like asthma, TB (tuberculosis), diabetes, etc.)

- 2) Which are the major complications of adolescent pregnancy?

**Answer:** Pregnancy-induced hypertension, anaemia, risk of mother-to-child transmission (in case of HIV patient), pre-eclampsia (complication of pregnancy), bleeding, malaria, etc.