



A Self-Study Guide

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**A collaborative project between the University of Nevada, Reno;
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Introduction

The adolescent years (ages 12 through 19) is a time of change and increasing demands as children strive to become adults. Coping with the demands of pregnancy and impending parenthood imposes additional pressures upon the normal stresses teenagers face.

This module was developed to facilitate positive relationships between nutrition counselors and the pregnant teens with whom they work. The main objective is to provide the background information and tools counselors might use in dialoguing with pregnant adolescents.

Modules

- **One – Adolescent Development**
- **Two – Determinants of Food Choices by Adolescents**
- **Three – Working toward Behavior Change**

The module is divided into three sections:

Part One – Adolescent Development

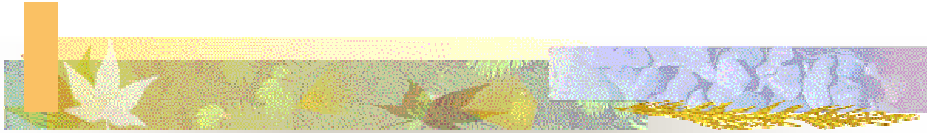
Part Two – Determinants of Food Choices by Adolescents*

Part Three – Working toward Behavior Change

Parts One and Two provide background information. Part Three provides practical examples, suggestions and strategies for counselors to considering adopting.

*For more details regarding nutritional needs during pregnancy for adolescents, please refer to: *Nutrition and the Pregnant Adolescent: A practical reference guide.*

Section One



Adolescent Development

Connecting to the Pregnant
Adolescent - Part One



Three phases of adolescence

- **Early adolescence – ages**
- **Middle adolescence – ages**
- **Late adolescence - ages**

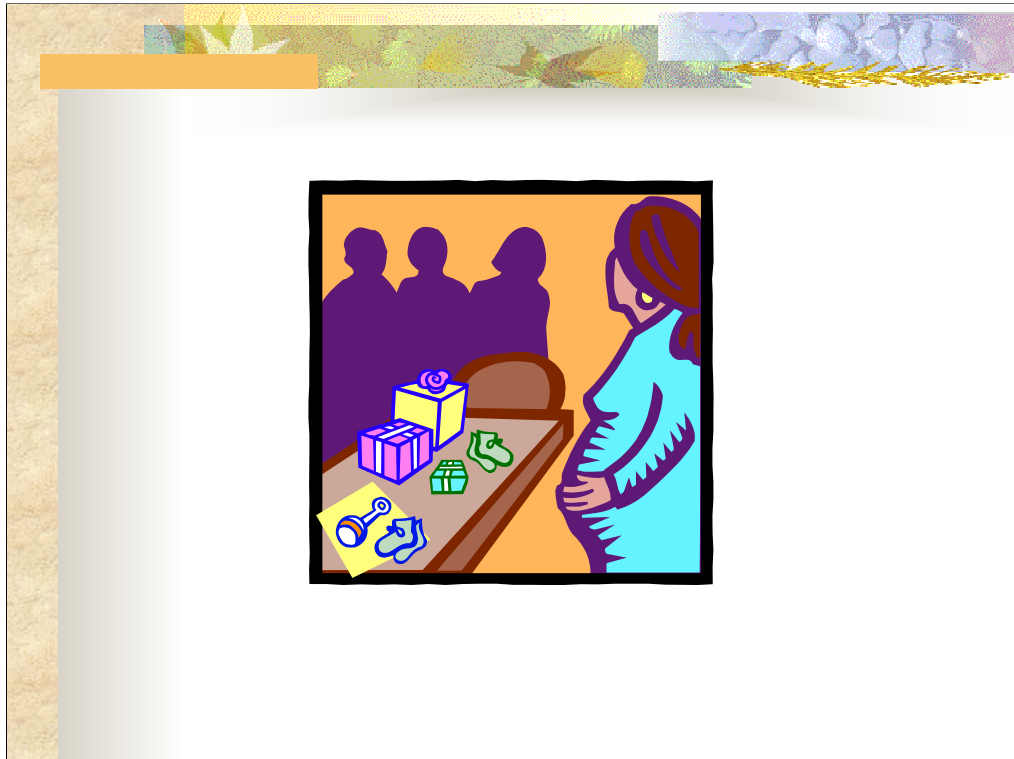
Pregnant adolescents are a heterogeneous group, covering the ages of 12 through 19 years and spanning three stages: early, middle and late adolescence. Females within and between these stages differ in maturity, growth rates, personality, and environmental characteristics. Enormous changes during these stages occur simultaneously. Drastic changes in physical, psychological, social, cognitive and moral development are occurring although not at the same time, at the same rate, or in the same amount for all adolescents [Johnson, 1988 #112], making it is unrealistic to expect the same behaviors from all teens, even among those of the same chronological age. In addition, many adolescents do not attain complete adult maturity in the psychological, social and moral areas of their lives while others may not achieve higher levels of cognition (learning and knowledge). To develop strategies for connecting with pregnant adolescents, it is imperative to understand the world in which they live. Furthermore, the counselor will only be able to connect if she recognizes each pregnant adolescent as the individual she is.



Section One

Adolescent Development

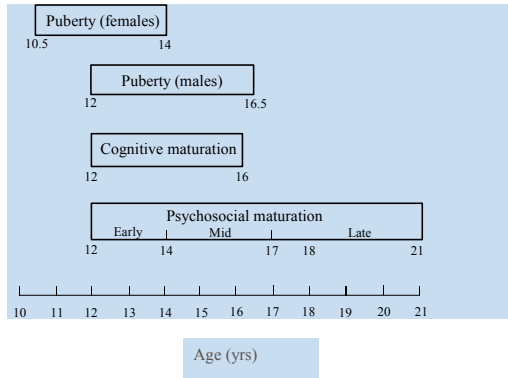
- **Physical**
 - **Psychological and Social**
 - **Cognitive**
 - **Effect of Environmental factors**
- 



Some pregnant adolescents have been characterized as [Wasik, 1990 #109]:

- having sufficient understanding of contraception but vaguely aware of their role in conception
- wishing pregnancy would give them the independence and maturity which they do not feel
- vacillating between a sense of deep guilt and of intense pleasure at being pregnant
- idealizing motherhood
- having a sense of power about being pregnant; however, feeling powerless to make changes in their own lives

Average Ages of Pubertal, Cognitive, and Psychosocial Maturation



Physical Development

- **Tanner Stages define pubertal growth**
- **First signs - breast buds and sparse, fine pubic hair occurring on average between 8 - 13 years**
- ***Menarche* occurs 2 to 4 years later**
- **Linear growth occurs between 9.5 to 14.5 yrs.**

Breast buds and pubic hair changes are referred to as Sexual Maturity Rating (SMR) stage 2. By 8 years of age, 48% of African American girls had reached SMR stage 2 compared to only 15% of White females. Age of initial breast development is about 8.8 years for African American and 9.9 years for white females. Pubic hair growth begins at 8.7 years in African American and about 10.6 years in white girls.

The onset of menstruation occurs most commonly in SMR stage 4. The average age of menarche is 12.4 years, but menarche can occur as early as 9 or 10 years or as late as 17. Menarche occurs at about the same time for most females: 12.2 years for African American and 12.8 for white adolescents.

15 to 25% of final adult height will be gained during these early years (SMR stage 2) with an average increase in height of 9.8 inches.

Peak velocity in linear growth occurs approximately 6 to 12 months prior to menarche.

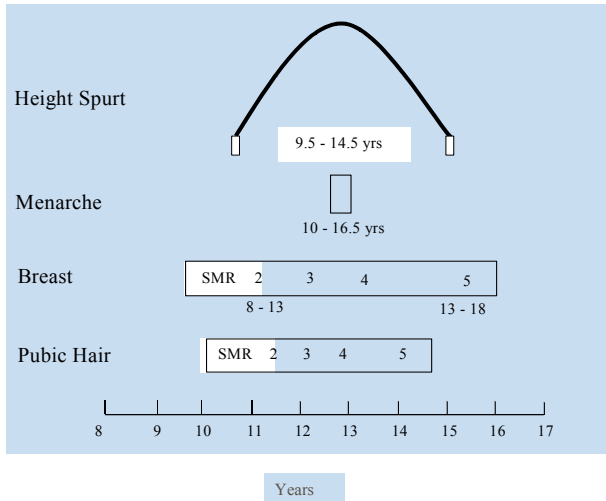
The linear growth spurt lasts 24 to 26 months, ceasing by age 16 in most females

Sexual Maturity Rating for Females

Stage	Breast Development	Pubic Hair Growth
1	Prepubertal; nipple elevation only	Prepubertal; no pubic hair
2	Small, raised breast bud	Sparse growth along labia
3	General enlargement of raising of breast and areola	Pigmentation, coarsening and curling, with an increase in amount
4	Further enlargement with projection of areola and nipple as secondary mound	Hair resembles adult type, but not spread to medial thighs
5	Mature, adult contour; areola same contour as breast, only nipple projecting	Adult type and quantity, spread to medial thighs



Sequence of Physiological Changes During Puberty in Females



Body Composition and Weight

- Females experience increases of 44% in lean body mass & 120% in body fat during puberty.
- 50% of ideal adult body weight is gained during adolescence
- During peak velocity of weight change (12.5 yrs) girls gain approx 18.3 lb (8.3 kg) per yr
- As much as 14 lb (6.3 kg) can be gained during the latter half of adolescence
- Peak accumulation of muscle mass occurs around or just after menses

Among females, peak weight gain follows the linear growth spurt by 3 to 6 months. Weight gain slows around the time of menarche, but continues into late adolescence.

Average lean body mass falls from 80% to 74% of body weight while average body fat increases from 16% to 27% among females. Adolescent females gain approximately 2.5 lb of body fat mass each year during puberty

Body fat levels peak among females between the ages of 15 to 16 years.

Skeletal Mass

- **Almost half of adult peak bone mass is accrued during adolescence**
- **By age 18, more than 90% of adult skeletal mass has been formed**

Factors contributing to the accretion of bone mass include:


- hormonal changes
- weight bearing exercise
- cigarette smoking
- consumption of alcohol
- dietary intake of calcium, vitamin D, protein, phosphorous, boron and iron



Physical Changes Specific to Pregnancy

- **Weight gain**
- **Breast size**
- **Expanding waist and hips**
- **GI disturbances**

Weight gain is the most significant change during pregnancy for most women but especially for pregnant teens. Changes to breasts, waist and hips can impact a teen's body image. Gastro-intestinal changes, including nausea, vomiting, constipation and diarrhea, presents challenges to the teen throughout her pregnancy.



The following video-clip provides insight into how a group of pregnant and parenting adolescents think and feel about the changes in their bodies and their weight





Psychological and Social Changes

**The adolescent years requires
balancing the needs for
Self-identity vs. Peer Acceptance**

Adolescence is a turbulent time [Hoyer, 1998 #61]. It is a time to take risks, to explore, and to seek identity. It is a time when teens are developing their own self-concept and view of the world apart from that of their parents and other “authority” figures. On the other hand, peer opinion is of primary importance.

Preadolescence is filled with much self-doubt; however, around age 15 a shift to increasing self-confidence in their own ability to successfully master life’s experiences occur. Indeed, new research suggests impulsive behavior may be the result of brain maturation. It appears that throughout childhood and into adolescence the area of the brain that exerts cognitive control over behavior increases, thus enhancing voluntary suppression of impulsive response tendencies. In other words, as teens mature, their brains change from high activity in areas that cause impulsive behaviors to increased activity in areas that determine thoughtful decisions.



Psychological and Social Changes

- **Acceptance of pregnancy and parenting role is difficult for many mothers**
- **Pregnant teens appear to have increased psychological responses**

Accepting and embracing the parenthood role may be even more difficult for the adolescent than it is for many adults. It has been noted that some teens quickly rise to the occasion whereas others are overwhelmed by the demand. Teen mothers exhibit higher rates of stress, despair, depression, feelings of helplessness, low self-esteem, and a sense of personal failure than older mothers [Hoyer, 1998 #61; Furstenberg, 1989 #57].



Psychological and Social Changes

- **Self identity requires independence**
- **Adolescents often express this normal developmental stage with defiance**
- **This defiance can be interpreted by adults as demanding and self-centered**

Becoming an independent functioning adult requires separation and exploration by the adolescent for their families and from authorities. Often this need is expressed in defiant and fiercely independent behavior. Adolescents, believing they are “adult,” demand to be treated as a self-determining individual.



Cognitive Changes

- **Develop global view**
- **Master abstract concepts**
- **Formulate own ideas**

Adolescence is the time when teens develop a global view of the world, master abstract concepts and formulate ideas. However, cognitive abilities often run in opposition to social pressures and behavioral choices.

Cognitive Changes

- **Pregnant teen learns appropriate health and nutrition choices but may not make them**
- **Pregnant teen recognizes the conflict between knowledge and behavior**

In relation to health and nutrition, while the teen understands basic information, such as how nutrients function within the body, this knowledge does not necessarily result in appropriate behavior. Hormonal and brain maturation often runs counter to the application of knowledge. Interestingly, the adolescent is able to recognize conflicts surrounding health and food choices.



Psychological, Social and Cognitive Changes

**The following clip demonstrates what
adolescents say they want from their
relationships with health care
professionals**

The clip demonstrates the integration of the challenges of being an adolescent with those of being a mother. The exchange between the interviewer and among the mothers highlight the balance between an adolescent's knowledge, changing social interactions, and identity-seeking.

Environmental factors

- **Family members**
- **School accommodations**
- **Health care**
- **Socio-economic issues**

Any pregnant adolescent, even one from a middle or upper class family, may find her needs difficult to accommodate. Some families may be angry and unsupportive about the pregnancy whereas others may be overprotective. Many schools do not provide pregnancy management classes. Some schools may be reluctant to work with the teen in regard to her special needs. Absences to attend medical appointments or to accommodate morning sickness may cause the teen to miss exams or fail classes. Class scheduling may not be conducive to her physical changes (bathroom breaks, frequent eating, or breastfeeding). She may find herself without medical insurance (many health plans do not cover pregnancy in minor children). Finally, if living conditions at home are not good, the pregnant or parenting teen may not be able to find a safe haven. Yet, emancipation is almost impossible to obtain.

Teenaged mothers are at higher risks for severe social and economic consequences than are older mothers [Furstenberg, 1989 #57; Maynard, 1996 #65]. Many adolescent mothers end up in poverty and become reliant on social services [The Alan Guttmacher Institute, 1995 #54]. Some will drop out of high school, but by their late twenties, 7 out of 10 teen mothers complete high school. However, they are less likely to go on to college than women who delay childbearing. Those who return to school tend to be black, remain single, avoid repeated pregnancy, live with their parents and were under 16 years old when pregnancy occurred. However, these women may never make up for the economic delay.

The teen mother's poor educational and skill levels result in lower earnings and few employment opportunities [Federal Interagency Forum on Child and Family Statistics, 1999 #50]. Job choices are typically part-time, low skilled, non-challenging, and low-paid. Adolescent mothers experience low rates of marriage and the marriages that do occur are unstable. Fewer than half of these mothers will get married within 10 years and fewer still will marry the baby's father. Nonresident fathers often provide inadequate support for their children.



Conclusions

To facilitate behavior change in pregnant teens, nutrition counselors must:

integrate knowledge of the enormous challenges affecting the mother with a nutrition counseling style that accepts the mother where she is in her life





Personal Counseling Philosophy

Worksheet One will help you:

- **Choose components of your philosophy**
- **Put that philosophy into operation**
- **Prepare you for working with pregnant adolescents**

Please refer to the worksheet.

Note – there may be statements listed that you do not understand. By the end of this module, each statement will be covered. After each section of this module, you will be asked to return to the worksheet to expand on your original selections. In this manner, you can add those unclear statements if you choose.