Consideration of normative developmental changes of adolescence provides a framework for understanding some of the health risks to which pregnant teenagers are exposed, the health-related behaviors in which they engage, and the opportunities for health promotion with this population.

This chapter begins with an overview of the developmental tasks of adolescence. Guidelines for assessing the developmental status of adolescent clients are proposed. The chapter concludes with a discussion about the potential impact of development on experiences of pregnancy, and the possible influences of pregnancy and parenting on developmental progress.

**DEVELOPMENTAL TASKS OF ADOLESCENCE**

Adolescence is a period of transition from childhood to adulthood, a time of profound biologic, intellectual and psychosocial change. During this period, individuals reach physical and sexual maturity, develop more sophisticated reasoning abilities, and make decisions related to education and occupation that will shape their adult lives. For most, the transitions of adolescence occur in a continuous, gradual, and generally smooth fashion, rather than through extreme “storm and stress.”

Within contemporary society, the issues, opportunities, skills, and resources available to young people change as they progress through their adolescent years. For this reason, these years are often thought of in terms of:

- early adolescence (ages 11 to 14)
- middle adolescence (ages 15 to 17)
- late adolescence (ages 18 to 20)

Characteristics of biologic, cognitive, sexual, and psychosocial development at each of these stages are listed below. It is important to note that the timing and tempo of development may vary between individuals (e.g., two 14 year-olds may be at quite different stages of pubertal development). Similarly, within individuals, development within one domain may progress at a different rate than development in another domain (e.g., a 14 year-old may exhibit abstract thinking skills and, at the same time, be at an early pubertal stage).
Early Adolescence

- Onset of puberty and a preoccupation with body changes and body image.
- Emerging formal operational thought processes including abilities to think in abstract terms, think about possibilities, and think through hypotheses.\(^1\), \(^2\)
- Limited decision-making capacities.\(^3\)
- New cognitive capacities. Common patterns of egocentric thinking include: 1) the imaginary audience in which adolescents suppose that everyone is focused on their behavior; and 2) the personal fable, in which teens believe that their feelings and experiences are completely unique.\(^4\)
- Emerging sexual feelings and attractions accompanying the onset of puberty.
- In the U.S., around 22% of girls\(^5\) and 27% of boys\(^6\) have had sexual intercourse by age 15. These youth are at high risk for outcomes including pregnancy and STD.
- Formation of close same-sex friendships which can include sexual experimentation.
- Establishing some emotional independence from parents, while at the same time becoming more emotionally reliant on friends. Conformity to peer opinion tends to peak at around age 14.\(^7\)
- Transition from elementary school into middle school or junior high school, often at the same time as the rapid changes of puberty.

Middle Adolescence

- Continued development of abstract thinking capacities; by the end of this stage, most teens are able to reason as well as adults. However, in new or emotionally-charged situations, individuals tend to revert to concrete thinking patterns.\(^8\)
- Greater capacities to turn to others for advice, weigh alternative courses of action, and make independent decisions.
- Tendency toward inner experience and self-discovery.
- Experimenting with various risk-taking behaviors.
- Exploration of intimate relationships with opposite sex peers; may also identify same-sex attractions, fantasies, behaviors.\(^9\)
- Less conformity to both parents’ and peers’ opinions than during early adolescence; however, peer groups continue to be an important source of identity affirmation.
- Transition into high school; emerging thoughts related to college and adult vocation or career.

Late Adolescence

- Refined abilities to understand others’ perspectives and factors that influence these perspectives.
- Emerging set of personal values related to what is right and wrong.
- Establishment of a coherent sense of self that incorporates past events with present experiences and future goals.
- Integration of sexual feelings, cognitions, and experiences into a mature sexual identity; capacity for intimate relationships that satisfy emotional and sexual needs of both partners.
- Formation of individual friendships; peer group affiliations become less important than earlier in adolescence.
- Reduction in family conflicts as true independence and interdependence with family members is established.
- Pursuit of adult vocational roles through college, technical training, or actual career employment.

ASSESSMENT OF DEVELOPMENT

Obtaining information from pregnant teens related to their developmental capacities and issues provides a basis for 1) identifying how development may impact pregnancy; and 2) developing a plan for health care that fosters healthy development. Key considerations for one-on-one assessments are listed below.\(^10\)
Cognitive Development
• What kinds of information does the adolescent use in making decisions related to her pregnancy?
• What are viewed as important sources of information?
• Who does she feel ultimately makes decisions related to her pregnancy?
• How does she think her life will change after the baby is born?

Body Image
• How do the physical changes of pregnancy affect the adolescent’s view of her body?
• Does she have concerns related to weight gain?

Sexual Behavior/Sexuality
• What is the nature of the relationship in which this pregnancy occurred?
• Is pregnancy the result of non-voluntary or unwanted sexual behavior?
• At what level of consistency had the adolescent been using contraception to prevent pregnancy?
• Is the adolescent struggling with issues related to sexual identity or sexual orientation?

Identity
• How does the adolescent picture or describe herself?
• How does pregnancy fit with this concept of self?
• Is pregnancy equated mainly with success or failure?
• For the adolescent who chooses to parent, how will this role affect self-concept?

Autonomy
• Is the adolescent currently attending school? If so, how is she doing in terms of school performance?
• What are the adolescent’s future educational and career goals? How will pregnancy and parenting affect these goals?

• What is the adolescent’s current source of financial support? How does pregnancy affect her financial dependence on family or others?

Relationships/Social Support
• With whom is the adolescent currently living?
• Whom can she rely on to help meet her needs?
• How does the adolescent describe her current relationship with her parents, with other family members, with the father of the baby, and with close friends?
• What are her expectations related to emotional, practical, and financial support during pregnancy from each of the above sources?
• What are her expectations for support with parenting?

IMPACT OF ADOLESCENT DEVELOPMENT ON PREGNANCY AND PREGNATAL CARE
Developmental issues can impact how an adolescent thinks and feels about her pregnancy and the extent to which she adheres to prenatal care recommendations. Table 1 describes specific issues related to cognitive development, body image, identity formation, and relationships with significant others that are likely to interact with pregnancy and prenatal care.

IMPLICATIONS FOR PRENATAL CARE
Developmental issues should be taken into consideration in planning and providing adolescent prenatal care. After making an accurate assessment of the adolescent’s developmental status, prenatal care recommendations should be tailored to meet her needs and abilities. The following strategies may be helpful in promoting healthy behaviors during pregnancy:

Promoting Healthy Behaviors During Pregnancy
• When working with adolescents who have limited future time perspectives and abstract thinking capabilities, use very concrete and prescriptive language
<table>
<thead>
<tr>
<th>Developmental Task</th>
<th>Early Adolescence (11-14)</th>
<th>Middle Adolescence (15-17)</th>
<th>Late Adolescence (18-20)</th>
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</thead>
<tbody>
<tr>
<td>Cognitive Development</td>
<td>Concrete thinking and egocentrism may prevent teen from being able to fully understand the relationship between her behavior and the future health of her child. For this reason prenatal care may not be seen as important. The &quot;imaginary audience&quot; phenomenon may lead to a great deal of secrecy and embarrassment about the pregnancy.</td>
<td>Emerging abstract thinking capabilities may enable teen to see the relationship between her behavior and the future health and well-being of her child, although the increased stress of pregnancy may cause her to revert to more concrete thinking patterns.</td>
<td>Increased ability to understand the perspective of others and to think abstractly allows teen to comprehend the relationship between her behavior and the well-being of her child; and to plan ahead for the needs pregnancy, birth, and parenting.</td>
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<tr>
<td>Body Image</td>
<td>Concerns about recent pubertal body changes are compounded by the body changes associated with pregnancy. Teen may feel very awkward and confused about her body and sexuality. Prenatal care may be her first experience with a gynecological exam, adding to anxiety about her body.</td>
<td>Concerns about body image and weight changes may cause teen to resist weight gain and other nutrition-related recommendations made during prenatal care visits.</td>
<td>Greater comfort with body image may make teen more comfortable with body changes associated with pregnancy.</td>
</tr>
<tr>
<td>Identity Development</td>
<td>Weakly developed sense of self may result in a great deal of confusion about what being pregnant means for teen's identity and reputation.</td>
<td>Emerging sense of self; pregnancy may be seen as a vehicle for attaining and confirming an adult identity.</td>
<td>Stronger sense of self; facilitates adaptation to the role of mother.</td>
</tr>
<tr>
<td>Relationship with Peers/Male Partner</td>
<td>May be concerned about how pregnancy will impact friendships. Peer approval and support may be enlisted to support healthy behavior. Pregnancy may be result of unwanted or non-voluntary sexual intercourse. Relationship with the baby's father is not likely to be serious.</td>
<td>Peer approval and modeling are very important and may help support healthy behavior. May view pregnancy as a vehicle for confirming or strengthening relationship with father of the baby.</td>
<td>Individual friendships may provide support for pregnancy-related needs. May have more stable relationship with father of the baby and may be able to enlist his support for pregnancy and parenting needs.</td>
</tr>
<tr>
<td>Relationship with Parents</td>
<td>Teen's need to establish independence from parents may conflict with her need for extensive family support during pregnancy and parenting. Parents and other family members must be enlisted to provide support for adhering to prenatal care guidelines.</td>
<td>Increased independence from parents may be tempered by demands of pregnancy and parenting. Parents and family members can provide support in meeting needs of pregnancy and parenting.</td>
<td>Economic independence or separate living situations may reduce dependence upon parents. Parents and family members may still provide vital support in meeting needs of pregnancy and parenting.</td>
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</table>

when discussing prenatal care recommendations. Help the adolescent develop specific contingency plans. Do intensive follow-up phone calls and/or home visits to make sure she is carrying through with these plans and has support to do so.

- Use prenatal care issues to promote and reinforce decision-making skills. When working with adolescents with limited experience in making decisions, it may be helpful to explicitly incorporate the following series of questions into education and counseling sessions: 1) What is the issue? 2) What alternatives or choices are available? 3) What are the pros and cons of each alternative? 4) What does she see as the best alternative? 5) How can she achieve this alternative? What is her plan? 6) Did she follow the plan? What happened as a result of her actions? 

- Talk with adolescents about concerns related to weight gain or body image during pregnancy. Stress the relationship between good nutrition and exercise and good appearance, including skin and hair. If an adolescent is concerned about weight gain, help her to develop a healthy plan for losing weight after the baby is born.

- Provide concrete incentives such as movie tickets or personal care products for complying with observable prenatal care recommendations, such as attending scheduled office visits.

- If a pregnancy is a result of non-voluntary or unwanted sexual involvement, help teen to sort out her feelings about the incident, the pregnancy, the baby, and her sexuality. A referral to a mental health professional for in-depth counseling is very appropriate in these situations.

- Use other teens as prenatal health educators and support persons. Teens who are slightly older, have had previous experience with pregnancy, and have been formally trained as peer educators can be a strong source of support for health-enhancing attitudes and behaviors during pregnancy.

- Involve parents and other family members in prenatal care visits. Help family members to develop expectations and patterns of interaction that allow the adolescent to take primary responsibility for her own pregnancy-related care, but also give her time and opportunities to be a “regular teenager.” In families with substantial levels of discord or conflict, referral for family counseling is appropriate.

- Assess for signs of depression, anxiety, or emotional distress (see Table 2). In situations where the adolescent experiences prolonged periods of depression, anxiety, or emotional distress, referral to a mental health provider is important.

<table>
<thead>
<tr>
<th>Psychological</th>
<th>Behavioral</th>
<th>Physiological</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hopelessness, with negative views of the future</td>
<td>• Sudden changes in school attendance or performance</td>
<td>• Fatigue</td>
</tr>
<tr>
<td>• Helplessness, with negative views of the world and her relationship to it</td>
<td>• Acting-out behavior including running away from home, theft, vandalism, fighting</td>
<td>• Insomnia</td>
</tr>
<tr>
<td>• A state of general dissatisfaction or unhappiness</td>
<td>• Risk-taking behaviors including substance abuse, sexual promiscuity</td>
<td>• Dramatic changes in appetite</td>
</tr>
<tr>
<td>• Loss of motivation</td>
<td>• Social isolation; loss of interest and withdrawal from usual activities</td>
<td>• Recurrent headaches and generalized abdominal pain</td>
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</table>
IMPACT OF PREGNANCY AND PARENTING ON ADOLESCENT DEVELOPMENT

Risks and Negative Consequences

Demands associated with pregnancy and parenting often absorb large portions of adolescents’ energy and abilities, leaving little time for accomplishing normative tasks of adolescence, such as developing meaningful relationships with peers and establishing greater autonomy from parents and other family members. The demands of parenting may also delay school and occupational plans, impeding intellectual development and economic self-sufficiency. While potential developmental consequences of pregnancy and parenting have not been studied extensively, some evidence suggests that early childbearing can hinder a young woman’s developmental transition into adulthood. Adolescent pregnancy and parenting may increase risk for the following negative psychosocial outcomes:

- Delayed intellectual development
- Less developed sense of self
- Limited peer interactions
- Increased risk for anxiety and depression
- Increased risk for child abuse and neglect

Additionally, pregnancy and parenting during adolescence have been associated with the following socioeconomic outcomes:

- Reduced educational attainment
- Greater number of pregnancies, including unwanted pregnancies
- Lower occupational attainment and lower income
- Greater welfare dependency
- Marital instability

It is difficult to disentangle the negative outcomes that may result from early pregnancy and parenting from the social and developmental risk factors that lead to teen pregnancy. Those adolescents at highest risk for childbearing are also at most risk for these negative outcomes regardless of whether or not they become a parent during their teenage years. Many of the socioeconomic and developmental disparities between teen and adult mothers may be due to factors other than adolescent childbearing, including poverty, early school failure, social isolation, and high-risk family and neighborhood contexts.

Opportunities for Healthy Development

Not all pregnant and parenting adolescents are doomed to suffer the negative outcomes outlined above. Indeed, parenthood may provide positive opportunities for some older adolescents, including:

- The role and functions of motherhood may provide opportunities to develop new skills and competencies. Successful fulfillment of these tasks may help young mothers to gain competency in other areas such as school and work. The need to support a child may also increase determination to succeed in school, employment, and relationships.

- The role of mother may provide an adolescent with a positive identity that is associated with membership into adulthood or womanhood, especially in communities where childbearing is greatly valued.

- Because adolescent pregnancy is often viewed as a crisis, multiple resources may be made available to the adolescent mother that were unavailable to her before she became pregnant. Family and community members, as well as health and social service providers, may provide support that may not be as readily available to adult mothers or nonpregnant youth.

Implications for Health Promotion

The following suggestions are aimed at fostering the ongoing development of young women faced with the demands of pregnancy and parenting:

- Promote continued academic achievement and involvement with school. Efforts should be made to set up quality childcare to enable adolescent mothers to stay in school. Approaches that integrate health services with school-based programs specifically designed to meet the needs of pregnant and parenting teens should be developed.

- Family members, friends, and/or baby’s father should be encouraged to provide concrete support and assistance with tasks such as baby-sitting. This will allow the adolescent mother to spend some time engaging in peer and school-related activities.
• Encourage consistent contraceptive use among teen mothers; address psychosocial factors that either encourage or discourage use with individual adolescent clients.12

• Not unlike adult women, adolescent mothers want to see themselves as good mothers and want to be recognized by those around them for their efforts. Capitalize upon this motivation by praising teens when they follow through with prenatal care recommendations or when they exhibit good parenting skills. Such recognition and praise will help to bolster self-esteem, self-efficacy, and a sense of accomplishment.

SUMMARY AND CONCLUSIONS

Because adolescence is a life period characterized by profound biological, intellectual, and psychosocial changes, it is important to assess the developmental status of teenage clients in order to provide appropriate prenatal care. Adolescent development has profound implications for the ways in which teens experience pregnancy and prenatal care. Additionally, the challenges of pregnancy and parenting can greatly impact the developmental trajectory of young women's lives. Identifying individuals' developmental capacities and issues allows health care providers to fully incorporate developmentally appropriate strategies into the care of pregnant and parenting teens.

Adolescent pregnancy and prenatal care pose many challenges for health care providers. At the same time, the delivery of prenatal services provides rich opportunities to guide adolescents through the changes that accompany both pregnancy and normal adolescent development. The tasks involved in maintaining a healthy pregnancy can serve as valuable experiences for teenagers to explore and reinforce new developmental capabilities. Health care services tailored to individuals' developmental needs and abilities can play a critical role in promoting the health and well-being of pregnant and parenting teenagers.

REFERENCES