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## Unit 4 Essays

### Chapter 9

Required Question: There are many significant physical and physiological changes that occur in adolescence. The physical change that I think is the most dramatic and what I believe comes to mind first when people think of adolescent physical change is puberty. Puberty is a brain-neuroendocrine process which provides stimulation for the fast physical changes in this period of development. The biggest and most noticeable changes in puberty are signs of sexual maturation and increase in height and weight. Another big change that happens during this developmental stage is definitely hormonal changes. There are two hormones which are testosterone and estradiol and each are present in the hormonal makeup of both boys and girls. However, the testosterone is greater in male puberty development and estradiol is greater in female pubertal development. Obviously, we know that behavior and moods can affect hormones. There are also some big changes that happen in the brain during this stage of development. In the corpus callosum we see that it thickens in adolescence, and this helps adolescents' ability to process information. We also see that during this stage of adolescence, the amygdala is very involved in emotions. Another increase that we see is the increase of dopamine and this has been shown to increase risk taking and use of addictive drugs. Dopamine also plays a big part in reward seeking during this adolescent stage of development.

1. There are many developmental changes in adolescents especially in their physical change. The most obvious change that most people think when it comes to adolescent development is puberty. Puberty is a brain-neuroendocrine process and this provides stimulation for the fast physical changes in this period of development in adolescents. The biggest and most noticeable changes are signs of sexual maturation and increases in height and weight. The biggest changes in sexual maturation in males in this stage of development are increase in penis and testicle size, appearance of straight pubic hair, minor voice change, first ejaculation, appearance of kinky pubic hair, onset of maximum growth in height and weight, growth of hair in armpits, more noticeable voice changes, and growth of facial hair. The biggest changes in sexual maturation for females in this stage of development are the breasts enlarges, pubic hair appears, hair appears in the armpits, growth in height, hips become wider than shoulders, and menstruation which usually comes later in the pubertal cycle. Adolescents in this stage of development also go through hormonal changes which include both testosterone and estradiol hormones. We see that behavior and moods definitely affect hormones in this stage. We also see that stress, eating patterns, exercise, sexual activity, tension, and depression can activate or lower various aspects of the hormonal system.
2. I feel like physical development during puberty seems to cause so much more concern to individuals at this age than physical development does at other ages because at this age it is much more noticeable. I think that this age is the “awkward” stage between a child and an adult and I think most people don’t really know how to properly handle this developmental stage. These huge developmental changes bring a lot of psychological and emotional feelings in adolescents during this puberty stage. Unfortunately many of these

emotional feelings can include guilt and confusion. I also think that at this stage most people are scared of puberty and hormonal changes and honestly most of the time don't even want to deal with it and just tend to ignore it. Every adolescent is different but this is usually the age where they are sexually active or at least are interested in becoming sexually active and this shows a lot of concern for other individuals. This is also a stage where most individuals need to be cautious around others because of these big physical changes that most of the time adolescents don't even know how to deal with. This is why we need to give the proper care in this pubertal and hormonal stage in order to avoid this emotional feeling of guilt and confusion.

3. While reading chapter 9 in the section of early and late maturers, I noticed that there is so much written about girls and barely anything about boys. In the book it explains that boys who mature early see themselves more positively and have better relationships with their peers than those who matured late. However, those boys who mature late developed a stronger sense of identity than those who matured early. To conclude for boys it shows that during this stage of development it is better to mature early than late in boys. For girls however is a whole different story, in the textbook it shows that girls who mature early have a greater increase of vulnerability and a number of problems. According to researchers, girls who mature early are more likely to smoke, drink, depressed, have an eating disorder, independence struggle, have older friends, and their bodies are likely to get responses from males which can result in early dating and sexual experiences. They have also found that girls who mature early are more likely to have sexual intercourse earlier and more unstable sexual relationships. Just to top everything off, researchers also found that girls who mature early are less likely to graduate from high school and tend to

marry early. Reading this section of the book really shocked me to see so much written about girls and only two things about boys when it comes to early and late maturation.

4. After reading this section in the book about the incidence of adolescent sexual activity and pregnancy in the United States and European countries, I am not even shocked or surprised by any of it. In the book it explains that researchers have found that the United States adolescents are less likely to use condoms than Europeans which again doesn't really surprise me with the statistics. The United States actually continues to have the highest rates of adolescent pregnancy and child bearing in the industrialized world. What is crazy to me is that on the line graph in the book it shows that the highest percentage of birth rate is between 15-19 year olds. Surprisingly enough the United States adolescent pregnancy rate is eight times as high as the Netherlands. Even though the United States is no more sexually active than the Netherlands, our adolescent pregnancy rate is very much higher than the Netherlands. Lastly, the United States had the highest adolescent pregnancy rate among 15-19 year olds and Switzerland had the lowest. I honestly pray and hope that in the future people are more aware and hopefully these statistics can change.
5. When it comes to adolescents' use of alcohol and cigarettes in school or in their life we see that alcohol takes more of a lead than cigarettes does. In the book itself it explains that in the 21st century alcohol and cigarette use has decreased in the United States adolescents. When it comes to cigarettes in adolescents we do not really see it as common now, instead what adolescents do use instead is vaping or marijuana. Alcohol does play a huge role in adolescents and can actually really affect their future and adult life. The book explains that early drinking can increase risk of heavy drinking in middle age. Also early

drinking before age 11 was at higher risk for alcohol dependence in early adulthood. Concluding, we definitely see that alcohol plays a bigger role in adolescents life than cigarettes does.

6. We see that over the years illicit drugs increased in the United States in adolescence mainly due to marijuana. As we know marijuana is actually the most used illicit drug by adolescents and it continues to have the highest rates of drug use of any industrialized nation for adolescents. Again we see that cigarettes have decreased in the United States and instead have been replaced with vaping or marijuana. Alcohol has also decreased but also plays a big effect on adolescents. We see that early drinking increases the risk of heavy drinking in middle age. Studies have shown that alcohol use before age 11 increases the risk for alcohol dependence in early adulthood. Another study shows that early alcohol, marijuana, and substance use were linked with substance abuse in early adulthood. It's important to understand that families and peers play a big role in this and this can determine whether an adolescent is more likely to use substances or not.
7. Anorexia nervosa is an eating disorder which can involve the constant pursuit of thinness through starvation and this is a serious disorder that can even lead to death. There are three points that we can look at to see if an individual fits into the category of anorexia nervosa. The first one is a restriction in energy intake leading to a large low body weight. The second is a presence of intense fear of gaining weight and becoming fat. The third one is a disturbance in how body weight or shape is experienced or lack of recognition of how serious the current low weight is. Anorexia nervosa usually starts in the early to middle adolescent years and is usually after a time of dieting or life stress. As we can imagine, anorexia nervosa is 10 times more likely to occur in females than males. Usually

the type of people who develop anorexia nervosa are white females who come from well-educated, middle and upper-income families. Lastly we see that surprisingly genes play an important role in anorexia nervosa. As we see people with anorexia control their eating by restricting it but on the other hand people with bulimia cannot. Bulimia nervosa is also an eating disorder where people follow a pattern of binge-and-purge. This is where a person overeats and then makes themselves vomit or even uses laxatives. Just like anorexia nervosa there are 2 points in order to determine if someone has bulimia nervosa. The first one is eating in a specific amount of time an amount of food that is much greater than what a normal person would eat. The second one is a lack of control over eating during an episode. Most people who suffer from bulimia are focused on food and have a very big fear of becoming overweight and are usually depressed and anxious. Also unlike anorexia, people with bulimia are usually in the normal weight range which makes it difficult to detect in people. Also like anorexia, bulimia is mostly common in women about 90 percent. People usually develop bulimia in their late adolescence or early adulthood but the good news is that about 70 percent recover from this disorder. Lastly bulimia has many treatments and counseling that can help and overcome this eating disorder.