Title: What Actually Happens During Puberty
Author: Ryan A Gise MD, Sandhya Brachio MD
Lesson Thread: Adolescent Issues
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To the Presenter: Please read through the lesson plan and make any notes prior to the session. Please arrive 15 minutes before session begins to write out Lesson Objectives and Do Now Activity (see below) on whiteboard, and to organize all supplies.

***Please refer to the Teaching 101 Lesson on the Community Pediatrics Website prior to your lesson***

Objectives: (have these written on the board before your lesson begins)
LSWBAT #1 – Lang Scholars will be able to define the overall purpose of puberty (5mins)
LSWBAT #2– List changes males and females experience during puberty (10 mins)
LSWBAT #3 – Understand the anatomical changes that occur in girls and boys during puberty - (20mins)
LSWBAT #4 - Understand the basic concepts of conception
LSWBAT perform the following DOCTORING SKILLS (45mins) -
  1. Talk knowledgably about the anatomical and physiological changes that occur during puberty
  2. Explain to their peers the physiologic concepts behind pregnancy
  3. Practice how to dispel myths that are associated with pregnancy and puberty

Supplies:
- Powerpoint with images for the lesson
- White board markers
- Copies of normal male and female anatomy maps
- Markers

Do Now: As students enter, they should write down an answer to the following prompt: (slide #2)

What is the point of Puberty???

Intro:
1) Always start lessons reviewing Lang Classroom Rules
   a. Key for this lesson are the following rules. Have Lang Scholars define them for you with specific examples-
      i. Excellence
      ii. Respect
2) Review your objectives for the lesson – (1 min)
3) Specifically state that the goal for the lesson, like all DIT lessons, is to learn
doctoring skills, point out today’s Doctoring skills (1min)

**Solicit Prior Knowledge**

**OBJECTIVE #1**

Review the Do Now - Purpose of Puberty – Have scholars share their answers and keep a list. The goal is for someone to realize the changes are all for the ability of a person to reproduce.

**OBJECTIVE #2**

- Expected changes during puberty – Chart with Men v Female v Both
  – SLIDES #5-6
- You can have scholars work in small groups or go around the room and solicit responses.
- You can type on the ppt on slide #5 to keep track and cross reference after a few minutes with slide #6
- Feel free to “call the scholars out” for not saying the tough words like Penis and Vagina – after all that is the point of today’s session, for them to get comfortable talking like a MD!!!

*Understanding the Anatomical Basis for the Changes*

**OBJECTIVE #3: Normal Anatomy**

a. Male Anatomy (Slides 8 and 9)
   a. Have the Scholars try and label their sheets on their own and then go around as a group.
   b. 1.) Vas Deferens - Muscular tubes that connect the epididymis on both sides to the ejaculatory ducts and serve to push the sperm toward the penis
   c. 2.) Bladder – Stores urine until it can be voided
   d. 3.) Prostate gland - the function of the prostate is to secrete basic fluid that comprises 50-75% of the male ejaculate and bathes the semen. Its purpose to help neutralize the acidity in the vaginal tract to help aid in fertilization of the female egg.
   e. 4.) Urethra – connects the bladder to the genitals for the purpose of removal of fluids from the body.
   f. 5.) Penis
   g. 6.) Testicle – Place of sperm production
   h. 7.) Scrotum – sac that encloses the testicle and keeps it at a lower temperature than the main part of the body for sperm production and to prevent denaturation of sperm
b. Nocturnal Emissions (slide 10)
   a. What are they?
   b. The purpose of this slide is to discourage fears about a totally normal bodily process and to differentiate it from ejaculation
   c. The result of hormonal changes in boys, that lead to the ability to get erections

c. Female Anatomy (slides 11-12)
   a. 1.) Labia Majora – outer lips of the vagina
   b. 2.) Clitoris – female sex organ, the most sensitive erogenous zone and the primary place of female sexual pleasure
   c. 3.) Urethra – same function as above in males
   d. 4.) Labia Minora – inner lips of the vagina
   e. 5.) Vagina - opening of the female reproductive canal
   f. 6.) Anus – Opening for defecation of stool

d. Female Anatomy (continued, Slides 13-14)
   a. 1.) Fallopian Tube – Tube that connects the Ovary and the Uterus. Female Eggs travel down this tube to the uterus once a month during the menstrual cycle
   b. 2.) Ovary – Females have 2. They are where eggs are stored so that they can be released monthly during the menstrual cycle.
   c. 3.) Uterus – Where implantation of a fertilized egg is supposed to occur, the place where the fetus will grow and develop during the pregnancy.
   d. 4.) Cervix – Opening between the uterus and the vaginal canal. It dilates during labor so that the fetus can descend through the birth canal
   e. 5.) Vagina

e. Menstrual Cycle (Slides 15-18)
   a. Usually occurs monthly in women
   b. The first phase is the preparation of the uterine lining for a potential implantation of a fertilized egg
      i. Fertilization occurs when the egg is met by a sperm in the uterus
   c. Mid-cycle the egg leaves the ovary, goes through the fallopian tube and goes into the uterus
   d. If the egg is not met by a sperm, conception does not take place and the egg dissolves. The uterine lining is shed and the period of menstrual flow begins.
   e. After this, the process restarts.

f. Conception (slide 19)


g. Sexually Transmitted Infections (Slide 21-23) Use the white board and Make a thought tree!
   a. The only 100% true way to prevent them and pregnancy is abstinence.
   b. Ask the students to tell you what they know about the different STDs
i. How are they contracted?
ii. What do they look like?
iii. How can they be treated

c. Viruses – Human Immunodeficiency Virus (HIV), Herpes Simplex Virus
   i. No cure
   ii. Can only mask some of the symptoms
   iii. In the case of HIV, potentially fatal
   iv. Antiretroviral treatment

d. Bacteria – Ghonorrhea, Chlamydia Trachomatis, Syphilis
   i. Some can be symptomatic – cause dysuria, penile or vaginal discharge or NOT!
   ii. Can lead to other conditions like Pelvic Inflammatory Disease in girls. This is a condition in which bacteria rise from the cervix into the uterus and fallopian tubes and can cause pain and scarring. Can lead to infertility
   iii. Can be cured with antibiotics

THE Doctors In Training Doctoring Skill:
***Emphasize the fact that Scholars need to think and act like doctors!
Sometimes doctors have to be great ACTORS!!!***

Myth or Fact: Doctors are often asked questions by their patients and have to reinforce the patient’s knowledge and dispel rumors

It is important to do so while keeping a few things in mind.

1.) It is important to be sensitive to where a patient is coming from. You have to take into consideration the education that they have had and their cultural beliefs.
2.) The goal is to empower your patients with the knowledge to make healthy decisions that are best for them!
3.) You are an important source of knowledge and as a Doctor what you say to them will have a large impact on their choices

Now run through the myths and facts that are in the power point presentation. Allow the students to tell you why they believe it is a myth or fact. Ask them how they would dispel the myths and reinforce the facts!

Concluding the Lesson: (5 mins)
Summarize the lesson by reviewing your posted objectives to show how far the group has come today!

Always leave time for student questions
Homework: (optional) – Slide #35 – Students should email responses to doctorsintraining.lang@gmail.com

Why do you think it is important for doctors to be able to talk about puberty without being embarrassed?