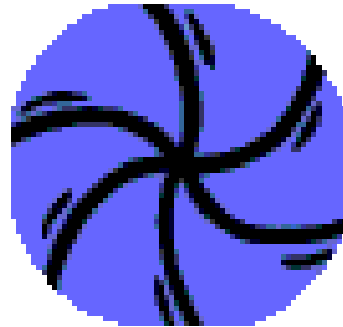


HUMAN DEVELOPMENT LECTURE



**DR. RACHEL KANG'ETHE
DEPARTMENT OF PSYCHIATRY
UNIVERSITY OF NAIROBI**

Lecture outline

1. Objectives
2. The Concept of Human Development
3. DEVELOPMENT ACROSS THE LIFE SPAN
4. Biopsychosocial factors affecting development
5. Major Theories on Human Development
 1. **Attachment Theory By John Bowlby**
 2. **Freud's Psychosexual Development**
 3. **Erik Erikson (1963)**
 4. **Jean Piaget's Cognitive Development Theory**
 5. **Lawrence Kohlberg's Moral Development**
 6. **Urie Bronfenbrenner's Ecological Approach**

Objectives:

1. Describe development including physical, cognitive, emotional, and social development as an ongoing set or process, involving both continuity and change.
2. Identify basic forces in the biopsychosocial framework
3. Identify major human developmental theories and major developmental landmarks from conception to death.
4. Apply knowledge from text and lecture to personal or professional life.

HUMAN DEVELOPMENT: INTRODUCTION

From conception to death, life is a journey of change. Although we begin the journey as a single cell full of potential, along the way, we undergo dramatic changes in our physical attributes, intellectual capacities, personal characteristics, social habits and skills.

What is Human Development?

- It is a pattern of movement and change
 - Some things change
 - Some things stay the same
- Movement & change include growth, transition, and decline.

The Concept of Human Development

- Human development is the scientific study of how people change, as well as how they stay the same.
- Development is the age-related physical, intellectual, social, and personal changes that occur throughout an one's lifetime.
 - **Structure** refers to substrate of the organism, such as nervous tissue, muscle or mental knowledge that underlies intelligence.
 - **Function** denotes actions related to a structure such as neuro-chemical secretions and other exogenous factors best described as “experience”—that is, external sources of stimulation.
- Change happens in childhood & in adulthood
 - **Qualitative:** change in structure or organization such as language, knowledge; way the mind works.
 - **Quantitative:** change in number/amount of something e.g. weight; number of words.

TYPES OF “CHANGES OVER TIME”

- **Phylogeny**: development of the species (i.e., evolution).
- **Ontogeny**: changes in *individual* over course of their lifetime.
- **Maturation**: biological unfolding of the individual according to a genetic plan.
- **Learning**: relatively permanent changes in thoughts, feelings, or behaviors as a result of experience, that usually occur over brief periods.
- **Growth**: Physical changes that occur from birth to maturity.
- **Aging**: Positive and negative changes in the mature organism
- **Development** is the age-related physical, intellectual, social, and personal changes that occur throughout an individual’s lifetime.
- **Developmental milestones** which are average ages at which specific physical, social, or cognitive achievements are attained, provide markers to assess development.

Why would we want to know about human development?

How do we apply results of human development research?

- Genetic Counseling
- Parenting advice, self-help, public information.
- Designing educational programs.
- Business & economic planning (e.g., insurance sales, marketing) .
- Social policy decisions (e.g., laws on marriage, city planning, social programs such as welfare, social security, Medicare).

What are the periods (age groups) of development?

1. Prenatal - conception to birth
2. Infancy – birth to about 2 years
3. Early childhood – about ages 2-6 (preschool)
4. Middle & late childhood – about ages 6-11
5. Adolescence – ages 10-12 or puberty until about ages 18-22 or independence
6. Early adulthood – ages 20/25 – 40/45
7. Middle adulthood – ages 40/45 – 60/65
8. Late adulthood – ages 60/65 on
 - Young old: 65-84 / Oldest old: 85+

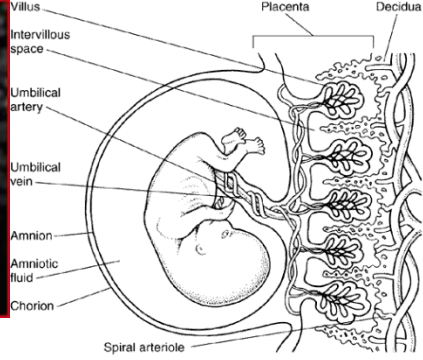
"The Pill is not enough!"



"You need a condom to keep AIDS and STDs away."
You didn't see those men looking and
You think you could never get it from them then.
That's right.
Plenty of reasons to use latex condoms.
Use a latex condom every time.
A condom is for both of you.



Conception



Prenatal



Infancy



Childhood

Major stages of the life-cycle.

Adolescence

Adulthood

Old Age

Death

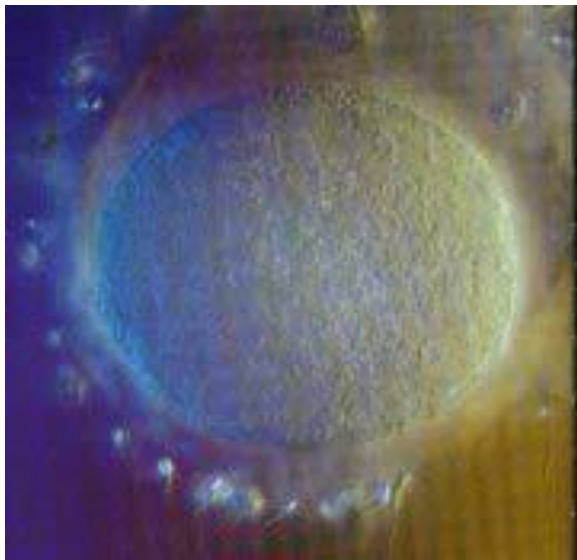


Prenatal Development

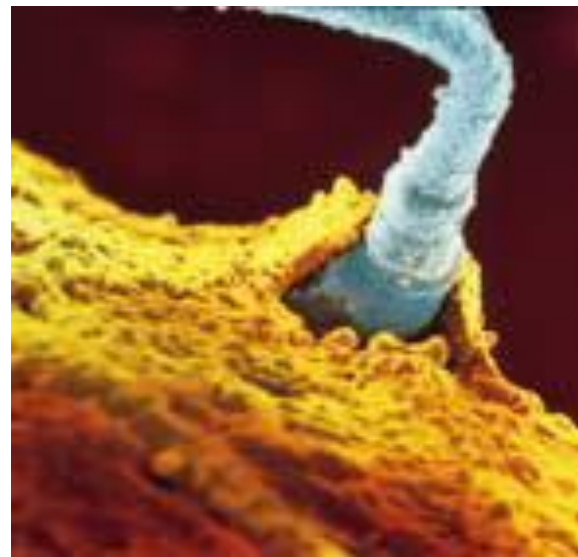
- Conception
- ~200 million sperm race to egg: 1 sperm penetrates
- Sperm fuses with nucleus of egg; one cell
- Over half do not successfully implant
- Prenatal Development
- Zygote – fertilized egg (0 - 2 weeks)
- Embryo – Heartbeat; sex differentiation; (2 – 9 wks)
- Fetus – Rapid growth of body & brain (9 wks – birth)

Conception

Sperm (from males) deposited in uterus (in females)
Must travel through cervix & fallopian tubes to meet egg



Sperm Surrounding Egg



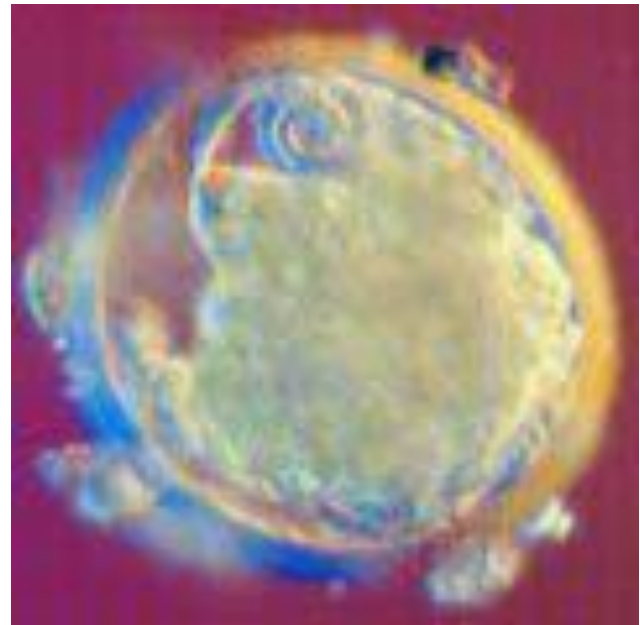
Sperm Penetrating Egg

Zygote – (~ 2 weeks)

Fertilized egg must implant in uterine wall to survive
Over half do not successfully implant



Initial Zygote



Zygote – Week 1

Embryo

Heartbeat begins; recognizable body parts appear; sexual differentiation begins (Y-chromo & androgens)



~ 4 weeks, 1 ½ inch long



~ 5 Weeks

Fetus: 9 wks - birth

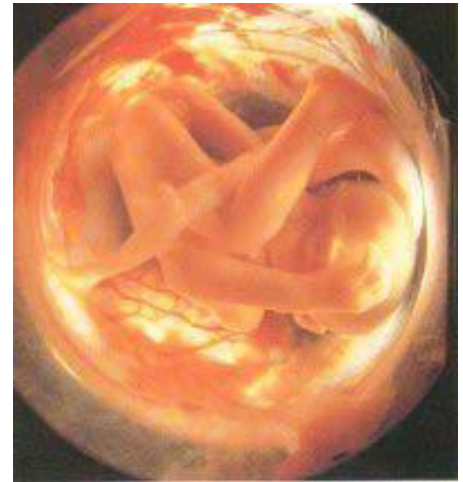
Rapid growth of body and brain



~ week 9,
~ 1 ¼ inches



~ Month 4, ~ 4 inches

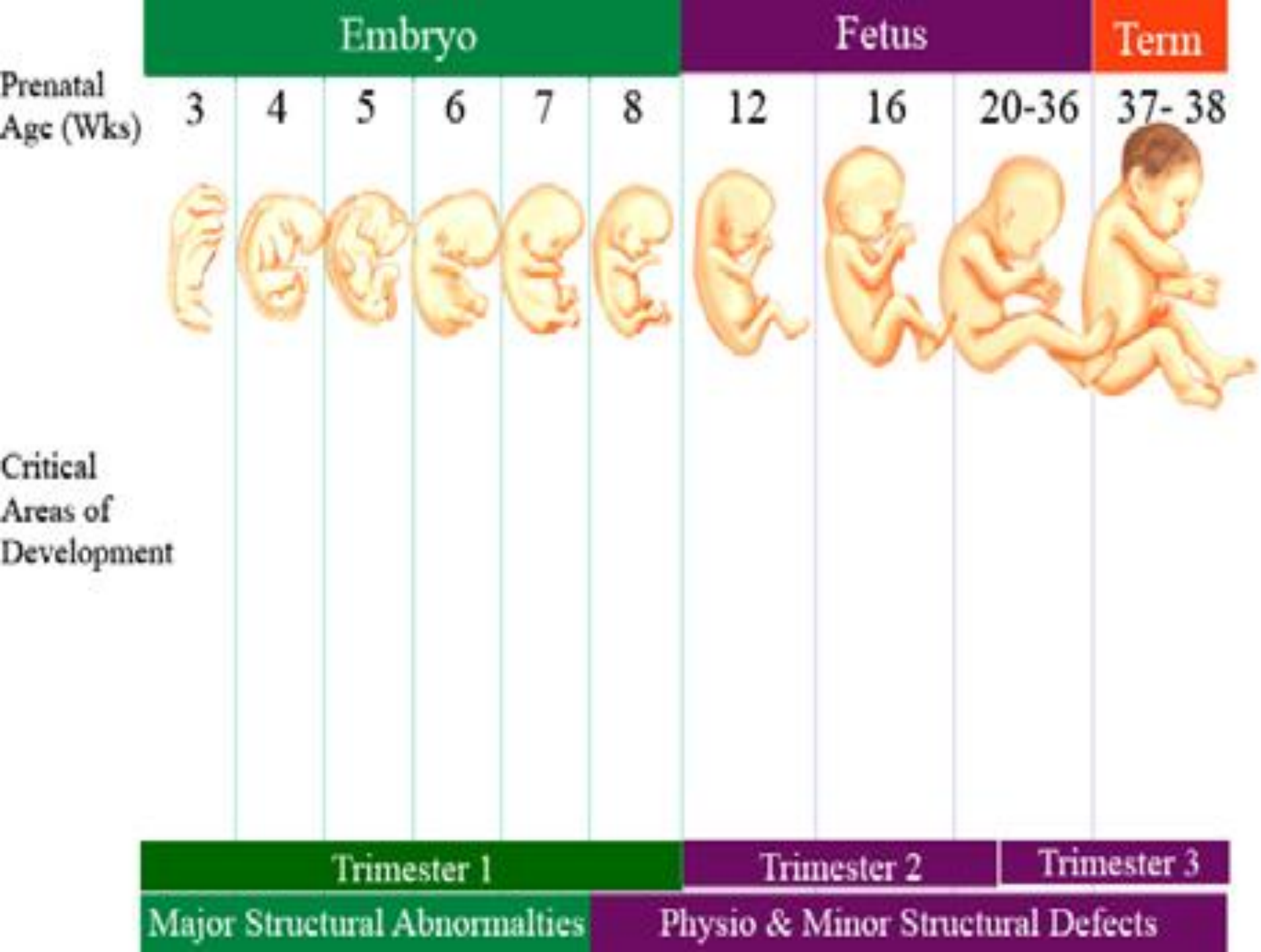


~ 7 months,
~ 15 inches

Prenatal Vulnerabilities

Fetus and embryo affected by womb environment

- Mother's health, diet
- Teratogens – Environmental agents that can potentially damage the developing embryo or fetus
 - Diseases (e.g., German measles (rubella))
 - Substances (e.g., nicotine, alcohol)
- Moderate drinking (1 drink/ day) may cause some problems
- Heavy drinking (5+ drinks/day): **Fetal alcohol syndrome likely in 30%**
 - Physical and facial deformities (characteristic)
 - Increased risk of mental retardation
 - Central Nervous System; Heart
 - Ears/ Eyes; Teeth/ Palate; Arms/ Legs;
 - External Genitalia



Babies are born with Survival Skills!



Crying calls caretakers for food



Rooting Reflex helps infants nurse

Maturation begins following birth

- Biological growth processes that enable orderly changes in behavior, which are relatively uninfluenced by experience
- Nature & Nurture Influence Development
 - That maturation occurs: biology
 - When/ how it occurs: environment

Maturation Processes in Humans

- Sequence of genetically-triggered processes, which are supported by neural network development
 - Movement
 - Roll over; Sit unsupported; Crawl; Walk
 - Language
 - Babbling; Nouns; Verbs; Phrases; Sentences
 - Memory
 - Birth – 3 yrs: Childhood amnesia (no consistent memory)
 - ~3.5 yrs: Conscious memories
 - By 5 yrs: Sense of self & consistent long-term memories

Maturation Processes in Humans

- Prenatal
- Infancy
- Childhood
- Adolescence
- Adulthood
- Senior
- Physical
- Cognitive
- Social

Lifespan Hallmarks

1. Various influences:

Various influences including culture, environment, social setting, heredity and physiology impact development. Events such as marriage, employment, and physical changes due to aging continue to shape development across the entire span of life.

2. Lifelong Development:

There is no stage in life where someone becomes 'too old' to:- develop or cultivate new plans & ideas; or to contribute productively to society, friends and family

3. Biology & Culture: "...human psychological development occurs in a physical body that is situated socially, within a cultural context." Peterson (2004); Lifelong growth is influenced by:

- Our bodies (Health)
- Social Influence (Family, Friends, Colleagues, Everyone!)
- Cultural Diversity (Where we grow up)
- Historic Occurrences (e.g. war, terrorism)

3. Continuity and Change:

Although we change physically (Infancy to Old Age) and psychologically - our continuity of interests and values seldom change. (e.g. Anti-war standpoint, human rights interests etc).

4. Developmental Optimisation: “...any applied intervention that is designed to maximise individual’s opportunities to develop their full potential.” (Baltes, 2001)

- a) Parents – Lifelong involvement should not stop after you leave home.
- b) Education – Lifelong learners. (Historically, this has changed)
- c) Health and Helping Professionals – Make sure you see the person, not just their age or infirmity.

Questions?

