LIFE CYCLE

• Focus on development across life cycle (through stages of life)
• Starts: conception; Ends: Death
• Divided into various stages; based on growth & changes
• In general, there are common / universal characteristics for each stage; however, there are also unique characteristics amongst individuals: (characters, time, duration)

Stages in life:
1. Conception & pregnancy
2. Birth
3. Infant (1st two years following birth)
4. Early childhood (toddler) (3 - 6 years of age)
5. Middle childhood (7 - 12 years of age)
6. Early adolescence (13 - 15 years of age)
7. Late adolescence (16 - 19 years of age)
8. Early adulthood (20-30's)
9. Middle adulthood (40-50's)
10. Late adulthood (above 60)

Developmental Task & Challenges

Prenatal stage:
• Pregnant women must receive good prenatal health care –
  - scheduled medical check-up;
  - Food intake (nutrition), life-style, hygiene, food supplements, medicine/drug/smoking/alcohol
• Support from spouse is highly needed

Challenges:
• Environment may influence fetal development
• Teratogens = an agent in the environment that can cause fetal defect/abnormalities/death (miscarriages)
• The effect is varied, depending upon:
  - Amount & period of exposure
  - Time of exposure
  - Genetic factors (of mom & fetus)
  - The present of other teratogens

Conceptions & Pregnancy
• A.k.a prenatal stage; the 1st stage of life
• Starts with the conception between ovum & sperm forming zygote
• Developmental stages during prenatal:
  a) Germinal Period - starts from conception to implantation (takes about 14 days).
  b) Embryonic period - from 2 weeks to 8 weeks after conception
  c) Fatal period - from 8 weeks to the end of pregnancy

• A normal pregnancy lasts for 9 months & 10 days; divided into 3 trimesters (basically for medical purposes):
  1. 1st Trimester pertama (early pregnancy - 3rd month) - very crucial stage
  2. 2nd Trimester (4th - 6th month)
  3. 3rd Trimester (last 3 months)
• Fetus develops throughout pregnancy
• Influenced by both genetic & environmental factors
• Mothers-to-be experienced tremendous changes — physical, emotional; particularly due to the changes in hormonal level
Critical period during prenatal:

1. Germinal/zygote = before implantation; teratogens < effect; If exposed; the cells collapsed (miscarriage)
2. Embryonic: Most critical stage - major development occur rapidly during this period
3. Fetal: Not as severe, but main organs can be easily damaged: brain, eyes: genital

Types of teratogens (examples)
- Medication (Cth: thalidomide, diethylstilbestrol, aspirin) – may cause bodily defect; harm reproductive function; cancer, low birth weight, death
- Drugs – various physical & mental damages
- Cigarettes – (priamy & secondary): low birth weight; premature birth, miscarriage; death; cancer
- Alcohol – brain damage, abnormal feature (facial), eyes are widely apart, thinner upper lip, small head size
- Radiation – cancer, miscarriage, abnormal physical growth, brain damages, physical & mental retardation; harm formation of skull & eyes
- Others: rubella, STD - HIV/AIDS, bacteria/parasite i.e toxoplasmosis (raw meat, cat’s feces)

CHILDBIRTH = 3 stages

- Stage 1: dilation stage; longest stage; the force of the uterine muscle push the baby to cause opening in the mouth of the cervix
- Stage 2: baby passes birth canal → hard contractions; baby is pushed towards vagina → birth
- Stage 3: passage of the placenta (afterbirth)
- Birth can be normal (through vagina, without aid; or with aid (forceps/vacuums) or cesarean birth
- Support from spouse is needed; good bonding for both parents at early stage (attachment)

Other factors:
- Food & nutrition
- Stress/depression (emotional health)
- Rh. factor (mismatch between fetus & mother)
- Rh. factor – is a blood protein
- Mother’s age
- Number of pregnancy / gaps in-between

Delivery complications
1. Vaginal bleeding; abnormal fetal heart rate; disproportionate in size of fetus & pelvic opening; abnormal presentation
2. Anoxia - < oxygen to the brain; due to prolapsed umbilical cord; placental insufficiency, premature labor, maternal bleeding, maternal hypotension, toxemia, malforamtions etc.
   - Can cause permanent damage to the brain cells @ death
   - Brain can also be injured during delivery by improper usage of forceps
3. Low birth weight: premature babies (< 37 weeks) or some full term babies (due to other causes)
4. Hyaline disease – cause breathing problems; surfactin is nor produced by baby to cover the lung & helps in breathing may cause still birth
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<thead>
<tr>
<th>Infant stage (0-2 years following birth)</th>
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<td>- Infants develop tremendously - physical (motor); senses; emotional; social &amp; emotional</td>
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<td>- Primary social agents play significant role to establish various development of the infant</td>
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<td>- Infant learns to trust or distrust people; learns how to express love &amp; affections; tries to master stages of development (esp. physical)</td>
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<td>- Infants temperaments can be detected at this stage</td>
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<th>Early childhood (3 - 6 years)</th>
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<td>- Preschool age (++ toddler)</td>
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<td>- Rapid growth - physical; social, cognitive &amp; language.</td>
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<td>- Develops self concept, identity (early stage); gender role; loves to play with others</td>
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<td>- Effective Parents-child relationship is critical</td>
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<th>Early adolescence (13 - 15)</th>
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<tr>
<td>- Transitional period between childhood &amp; adulthood</td>
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<td>- Rapid growth - earlier among girls (puberty)</td>
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<td>- Sexual maturity; formal operations thinking</td>
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<td>- Wanting freedom, autonomy; prefer peers?</td>
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<td>- Earlier &amp; established relationships since small will ease the adjustments for adolescents &amp; parents</td>
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<th>Middle Childhood (7 - 12 years)</th>
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<td>- Ability in reading, writing, maths is developed</td>
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<td>- Tries to think logically, to understand the “world”</td>
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<td>- School is another important micro system</td>
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<td>- Rapid growth in psycho-social &amp; moral dev.</td>
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<td>- Good family relationship is critical</td>
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<th>Late adolescence (16 - 19 years)</th>
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<td>- Formation of self identity is critical aspect of development at this stage</td>
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<td>- Plan for future career; academic pursuits; working</td>
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<td>- Establish relationship with partners of opposite sex ➔ special relationship</td>
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<th>Early adulthood (20's &amp; 30's)</th>
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<td>- Biggest challenge: to establish intimate relationship; determine career of choice &amp; get the job</td>
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<td>- Various major life decisions: marriage, becoming parents, establishment of career</td>
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<td>- Some early adults face divorce at this stage; remarriage</td>
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<td>- Many major life decisions at this stage will influence later stages</td>
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Middle adulthood (40's – 50's)

- Running out of time
- Self reflect, causes mid-life crisis
- Obtain > freedom esp. if all children left home
- Obtain personal & social responsibilities, successful career
- Adaptations are done esp if there are changes (in any other aspects) – i.e. promotions → moving to another state

Late adulthood (> 60)

- Need to adjust & adapt since major changes occur in almost all aspects of life
- Focus on health care to maintain overall well-being
- Some late adults use their time wisely by giving back to the family/society/country using their knowledge & experiences.

Challenges across life-cycle:

- Various capacity, types, durations, timing
- Various factors may influence them or influence the impact of the challenges
- Risk factors; protective factors
- A resilient person can survive best

Conclusion

- Life cycle approach == HD begins with conception, ends with death
- We develop & grow in 4 basic dimensions: physical, cognitive, emotional & social
- Influenced both by heredity & environmental factors