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# **Child Development**

## **M2 Psychiatry Sequence**

Michael Jibson  
Fall 2008



# Outline

- Introduction/Principles
- Stages of development
- Theories of development
- Temperament
- Clinical application
- Conclusion

# Principles:

- Development is continuous and lifelong, but most dramatic early in life
- Neonatal brain weighs 350g, triples by 18m, and nearly adult size at 1350g by 7y
- Neurogenesis **mostly** complete at birth
- Synaptogenesis and axonal/dendritic arborization and pruning are active throughout childhood and beyond
  - these processes are markedly influenced by environment and life experience

# Principles:

- Human infant born completely reliant on caretaker
- Prolonged state of dependency
- Developmental outcome is product of active interplay between individual's genetic make-up and unique environmental influences (nature vs nurture)

# Assessment of Normal Development

- Age based cross-sectional perspective
- Longitudinal developmental-line approach
  - | Motor
  - | Language
  - | Cognitive
  - | Social/Emotional

# **Newborn (Birth – 2 weeks) Competencies**

- Reflexes: Involuntary, physical responses to stimuli
  - Maintain adequate supply of oxygen (hiccup, sneeze, spit-up)
  - Maintain constant body temperature (cry, shiver, tuck legs)
  - Ensure adequate nourishment (sucking, rooting, swallowing)
- Social Orientation
  - Looking/snuggling/responsiveness
  - Adaptive impact on caregiving environment



# **Infancy (0-2 years)**

## **Developmental Tasks**

- Physiologic Stability
- Progressive Physical and Motor Development
- Bonding/Attachment
- Language Development

# Infancy (0-2 years)

## Physical and Motor Development

- Body Growth: Cephalocaudal and Proximo-Distal
- Brain Growth and Maturation: neurons increase in size and in density of connective networks that transmit messages
- Motor Development
  - Sequence of hand skills (ulnar grasp – pincer grasp)
  - Locomotion (crawling --- walking)
- Perceptual and Sensory Development

# Infancy (0-2 years)

## Cognitive Development

- Piaget's Stage Theory (cognitive-structural)
  - | Schemas
  - | Assimilation, Accommodation
  - | Sensorimotor Period
- Learning/Social learning
  - | Operant Conditioning (rewards, punishments, shaping)
  - | Classical Conditioning (associations)
  - | Instruction
  - | Imitation

# **Infancy (0-2 years)**

## **Language Development**

- Cooing and Babbling
- Holophrases/Telegraphic Speech
- Parent/Infant Interaction

# Infancy (0-2 years)

## Social, Emotional, Personality Development

- Erikson – Example of a Stage Theory
  - | Trust versus Mistrust (primary caretaker)
  - | Autonomy versus Shame and Doubt
- Attachment (Bowlby, Ainsworth)
  - | “Strange Situation” – observe infant in varying situations (mother, mother and stranger, stranger, mother returns, etc. ); code attachment
  - | Approximately 60% infants coded as “secure attachments” by age 24 months

# Infancy (0-2 years)

## Social, Emotional, Personality Development

- Spitz – Social responses
  - First “social” smile (Approx. 2 months)
  - Stranger Anxiety (Approx. 6 – 8 months)
- Freud – Oral stage
  - Mouth is primary organ of exploration and gratification
- Temperamental Differences/Goodness of Fit between parent and child
- Social Learning: Reinforcers, modeling, imitation

# Preschool (2-6 years)

## Developmental Tasks

- Progressive motor development (increasingly active participant!)
- Rapid language development
- Symbolic thought development
- Separation from primary caregiver/socialization beyond family
- Gender identity

# Preschool (2-6 years)

## Motor Development

- Progressive improvement in tone/strength
- Progressive improvement in motor skills
  - Drawing, Climbing stairs
  - Jumping, Hopping
- Control of bowel and bladder
- Period of ambulation and high activity level



# Preschool (2-6 years)

## Cognitive/Language Development

- Receptive language increases; vocabulary increases, sentence structure more elaborate
- Piaget's Preoperational Stage
  - Symbolic thought
  - Egocentrism, animism, imitation
- Cognitive-Processing Perspective
  - Attention span improves
  - Selective attention improves
- Importance of Play

# Preschool (2-6 years)

## Social/Emotional/Personality Development

- Erikson's Psychosocial Stage Theory
  - | Autonomy vs. Doubt (1-3 years)
  - | Initiative vs. Guilt (3-6 years)
- Socialization/Sex-Role Development
  - | Parenting Styles
  - | Sociocultural Influences
  - | Social Learning

# **School Age (6-12 years)**

## **Developmental Tasks**

- Progressive Motor Development
- Mastery of Concrete Information about World/Culture
- Beginning Movement away from Nuclear Family
- Socialization with Peers

# **School Age (6-12 years)**

## **Motor Development**

- Improved Balance
  - | Riding bike, skating
- Improved Coordination
  - | Gross motor
  - | Fine motor (writing)

# **School Age (6-12 years)**

## **Cognitive Development**

- **Piaget's Stage Theory: Concrete Operations**
  - | Assembling, classifying, compartmentalizing large amounts of information
  - | Establishing concept of conservation (number, class, length, weight)
- **Cognitive-Processing Changes**
  - | Attention/Sustained attention
  - | Memory strategies
  - | Problem-solving

# **School Age (6-12 years)**

## **Movement away from family**

- Increasing independence from parents
- School and neighborhood influences
  - Peer groups: companionship, information, cooperative play, independence from adults
  - Discipline and Social Norms
  - Club Formation
  - Sex Stereotyping
  - New Adults and Role Models

# **School Age (6-12 years)**

## **Emotional/Personality Development**

- Psychosocial Stage theory (Erikson)
  - | Industry vs. Inferiority
- Social Learning Theory (Bandura)
  - | Observational Learning
  - | Cognitive characteristics important
    - Intellectual ability, personal goals
    - Expectancies, plans, interpretation of events

# Adolescence (12-18 years)

## Developmental Tasks

- Adjust to Biologic Changes
  - Timing of Puberty: Early vs. Late Maturation
  - Growth Spurt: Rapid height and weight gain
  - Body Image (size, appearance, sexuality)
- Separation/Individuation from Parents
- Develop Abstract Thinking Abilities
- Continue Developing Identity



# Adolescence (12-18 years)

## Cognitive Development

- Piaget's Stage Theory (Formal Operational Thought)
  - Improved Logic, abstract thinking, reasoning
  - Potential versus Performance
- Elkin: Adolescent Egocentrism (perceive selves as more central & on "social stage" than actually are)
  - Imaginary Audience
  - Invincibility Fable

# Adolescence (12-18 years)

## Social/Emotional/Personality Development

- Identity Development
  - | Define self as unique person
  - | Erikson's Psychosocial Stage: Identity vs. Role Diffusion
- Social Influences: Rites of Passage
- Peer Influences
  - | Changing Definitions of Friendship
  - | Social Structure of Peer Groups: Crowds & Cliques
  - | Graduation Transition to Sexual Intimacy
- Parental Influences
  - | "Generation Gap?"
  - | Parenting Styles/Limit-Setting/Values

# Attachment Theory - John Bowlby

- | Reciprocal biopsychological process
- | Driven by evolution
- | Attachment behaviors
- | Mary Ainsworth - “Strange Situation”
  - ~ 60% secure attachment

# Psychosexual Model - Freud

- Oral Phase 0-1 y
- Anal Phase 1-3 y
- Oedipal Phase 3-6 y
- Latency 6-11 y

# Psychosocial Model - Erickson

- Basic Trust vs. Mistrust 0-1 y
- Autonomy vs. Shame/Doubt 1-3 y
- Initiative vs. Guilt 3-6 y
- Industry vs. Inferiority 6-12 y
- Identity vs. Role Confusion 12-20 y

# Cognitive Model - Piaget

- Sensorimotor Stage 0-18m
- Preoperational 2-6 y
- Concrete Operations 7-11 y
- Formal Operations 12+ y

# Temperament

## Chess and Thomas

- Speaks to individual styles or the “how” of behavior
- Described nine dimensions of temperament
- Defined three temperament styles
  - “Difficult” ~ 20%
  - “Easy” ~ 40%
  - “Slow-to-warm up” ~ 17%

# Dimensions of Temperament

- Activity level
- Rhythmicity
- Approach/withdrawal to novelty
- Adaptability to change
- Intensity of reaction
- Response threshold
- Mood quality
- Distractibility
- Attention span/persistence



# Child Abuse

- Physical/sexual abuse and/or neglect
- Impacts over 1 million children each year
- Over 3000 deaths each year (most commonly due to head trauma)
- Risk factors include low birth weight, handicapped and behaviorally disordered
- Abuser most commonly a parent/relative

# Sexual Abuse

- Perpetrator is known to victim in vast majority of cases (80%)
- Median age of victim 9-10 y

# **Physical/Sexual Abuse Leads to Increased Rates:**

- Depression
- Anxiety
- Conduct disturbance
- Hyperactivity
- Substance abuse
- Suicidality
- Neuronal Loss/Inhibited Neurogenesis

# Conclusion

■ THANKS!

- Please stay tuned for Child Psychopathology Lecture.