

Music & Health

Music and Human Development

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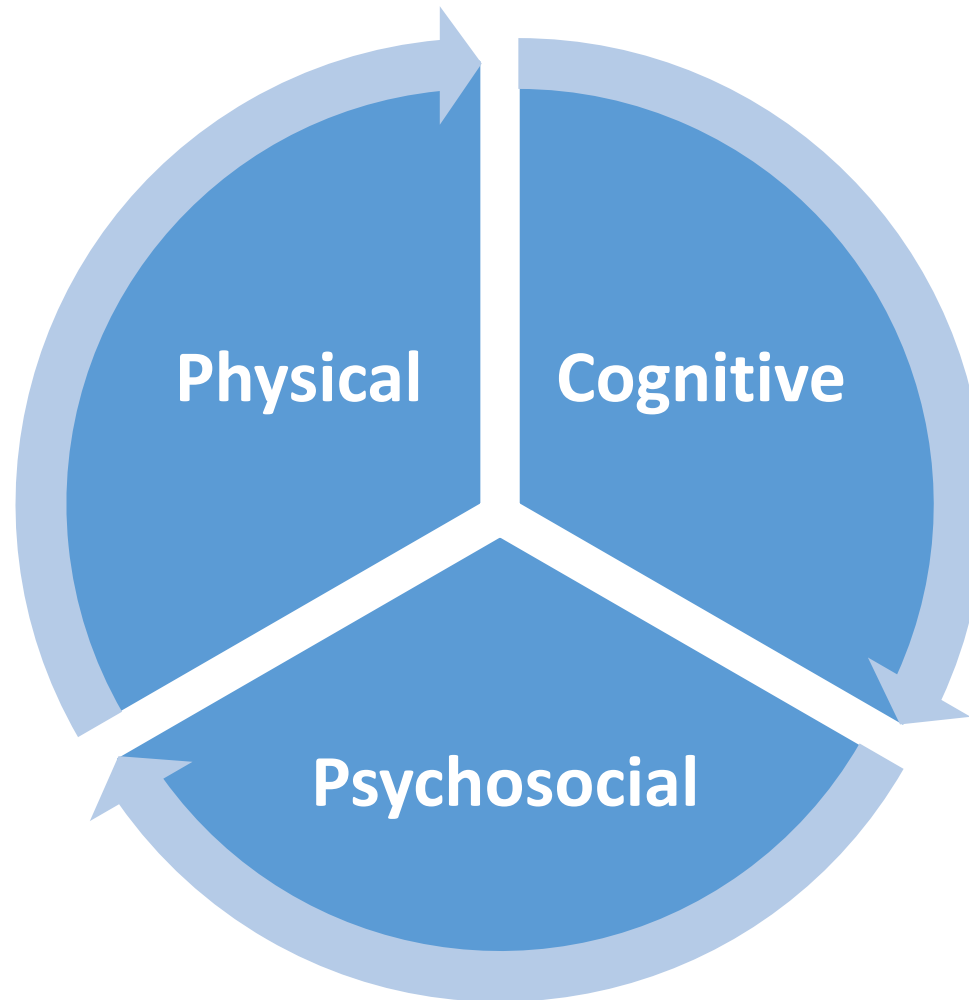


Periods of the life span

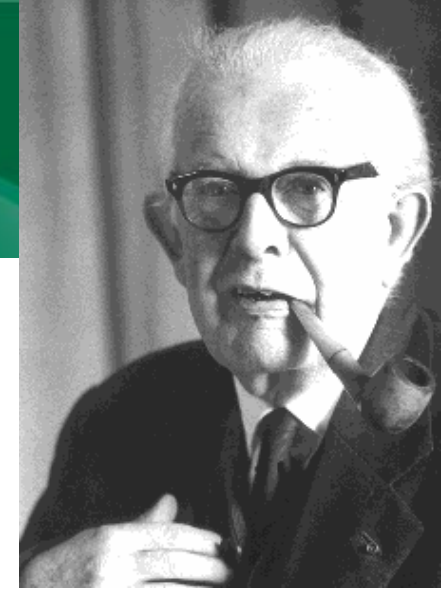
- Prenatal (conception to birth)
- Infancy and toddlerhood (birth to age 3)
- Early childhood (3 to 6 years)
- Middle childhood (6 to 12 years)
- Adolescence (12 to 20 years)
- Young adulthood (20 to 40 years)
- Middle adulthood (40 to 65 years)
- Late adulthood (65 years and older)



Aspects of development



Piaget (1896 - 1980)



- Swiss Psychologist, worked for several decades on understanding children's cognitive development : theory of cognitive development.
- Explain how we think, learn to reason, exercise judgment, develop intellectual organization
- Defined 4 periods that children move through:
 - Sensorimotor (Birth ~ 2 yrs.)
 - Preoperational (2 ~ 7 yrs.)
 - Concrete (7 ~ 11 yrs.)
 - Formal (11 yrs. ~ adult)

**Highly Influential
Theory!**

Piaget's theory and Musical Development

- Widely accepted theory > influential in other related areas : education, psychology, etc.
- Scholars in the music education/therapy > defined musical development corresponding to Piaget's stages.
 - >> How children develop musically in each stage?

Sensorimotor stage (ages newborn-2)



Development	Musical development
Learn the environment through their senses and motor activity	Responds to fluctuations in rhythmic beats
Sucking & mouthing objects, grasping, kicking, cooing, and crying	Respond with smiles or wiggles to music (3 month-old~)
Attracted to the voice of their mother : infant- directed speech	Matching vocalizations of their caregivers

Focus on Stimulation and Bonding!





LEARNING RESOURCE



OPEN ACCESS

The importance of early bonding on the long-term mental health and resilience of children

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ABSTRACT

Human babies are born very dependent on their parents. They undergo huge brain development, growth and neuron pruning in the first two years of life. The brain development of infants (as well as their social, emotional and cognitive development) depends on a loving bond or attachment relationship with a primary caregiver, usually a parent. There is increasing evidence from the fields of development psychology, neurobiology and animal epigenetic studies that neglect, parental inconsistency and a lack of love can lead to long-term mental health problems as well as to reduced overall potential and happiness. In this paper, the authors consider the evidence for this claim across several disciplines and conclude that the support of babies and their parents in the first two years of life to be a crucial aim of public health groups in the community.

KEYWORDS

Child development;
mental health; parenting;
bonding (psychology);
neurodevelopmental
disorders; epigenomics

Why this matters to me

The evidence on the powerful role of loving nurture in the emotional, social and cognitive development of children is powerful. Parenting is therefore more important than we could ever have imagined. Although I (Robert Winston) have published over 300 papers in medical journals and worked to develop IVF techniques, if I'm really honest, the most important achievement is undoubtedly my own three children. I don't have any doubt about that. And all of us in different ways are capable of contributing to the next generation both as parents, health care professionals and as a society.

Mother-infant bonding



- Importance of early bonding between infant & care-giver
> huge brain development in the first 2 years
- Physiological and psychological benefits on each other
- Speaking, **singing**, touching(rhythmic stroking, patting, and rocking) – primary modes of communicating with infants

Singing to baby

- Contours of infant-directed speech, adapted speech to infants
- Facilitate language development
 - baby talk, rhythmic activities



Infant-directed singing

Infant

- Process the emotional content of their mothers' singing
- Rewarding and arousal experience
- Regulation

Mothers

- Increase sensitivity of caregiving
- Capture infants' attention and keep them engaged in the interaction
- More awareness of infant state and react in a timely

Lullaby

- Sing, soothe
> to promote sleep
- Vocal piece of music specifically designed to soothe a child to sleep by using a repeated formula (Baker & Mackinlay, 2006)
- Enhance maternal interaction
- Linguistic and musical acquisition



Preoperational stage (ages 2-7)



Development

Rapid language and conceptual growth

Gradual motor development,
Increased coordination and movements

Increased social awareness,
Share and cooperate with peers

Musical development

Labeling concepts with words (fast, slow)

Develop beat competency,
Incorporate movement to music

Musical games,
Group instrument playing



Concrete operational stage (ages 7-11)



Development	Musical development
Begins to understand the world in a new way.	Self-expression and self-awareness through group music activities
Develop problem solving skills (as long as the situation is related to immediate reality)	Musical notation, understand musical concepts (rhythm, harmony)
Form social identity	Social interaction and cooperation in groups

Formal operations (age 11-adulthood)



Development

Able to think abstractly

Think systematically and solve mental problems

Musical development

Participation in music activity,
Taking music lessons

Leisure music activity in
daily life

Music in everyday life

- Music found in every culture, but ways of using music have been shifting throughout history.
- Current trends in using music in everyday life
- Who, what, when, where, why?

North et al. (2004). **Uses of music in everyday life**. Music Perception, 22(1), 41-77.

Outcome

- With whom? : alone (82.7%)
- What ? : chart pop (38%), R&B soul (8.4%)
- When ? : 5pm □ 12pm □ 11am
- Where ? : At home doing something else (17.4%)
 - At home deliberately listening to music (11.6%)
 - At home doing an intellectually demanding task (9.4%)
- Why ? : I enjoyed it (56.4%)
 - It helped to pass the time (40.6%)
 - Habit (30.6%)
 - Create the right atmosphere (30.5%)
 - Create or accentuate an emotion (20%)