

First Thousand Days ECD –ECE are together

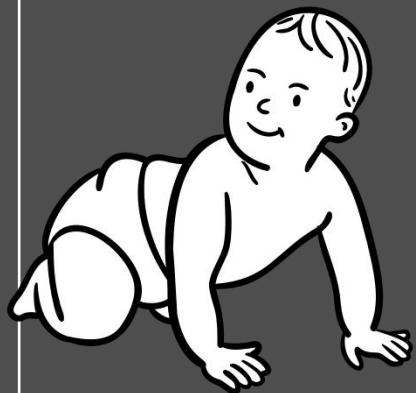
- **AIM:** Awareness to prevent future health risk behaviors, Neuro Developmental Disorders. Universal Nurture and Conscious Behavior Management counseling in WC visits 0-5 years, in health care delivery
- **OBJECTIVE:** All involved in caring for children need to understand the role of positive experiences through nurture 0-5 years and prevent Adverse Child - Community Experiences (ACE) and Developmental Disorders
- **GOALS:** Learners will utilize the knowledge to integrate behavior counseling in anticipatory guidance, teach Universal Nurture at PCP office during Well Childcare visits. This prevents many physical , behavior and mental health disorders.
- Assure holistic health, that is, “Physical, Intellectual, Psychological, Social-Emotional and Spiritual wellness”, to every child.

THE BEST PRACTICES FOR NURTURE AND EXTRACT ASSETS FROM EVERY INFANT THROUGH PLAY AND FUN ALL DAY THROUGH ALL ROUTINES

1. 5 Senses recognize a message
2. Infant has to accept the messages
3. All senses or more than 3 receive information at each experience
4. One event recognition combines all messages and learns
5. If not pleasant to senses, the information will not be transmitted to the executive brain
6. Learning cannot happen
7. Proprioception is the result of Muscle coordination and balance
8. Vibrio-Cochlear Perception is related to sensory system of the Ear for balancing

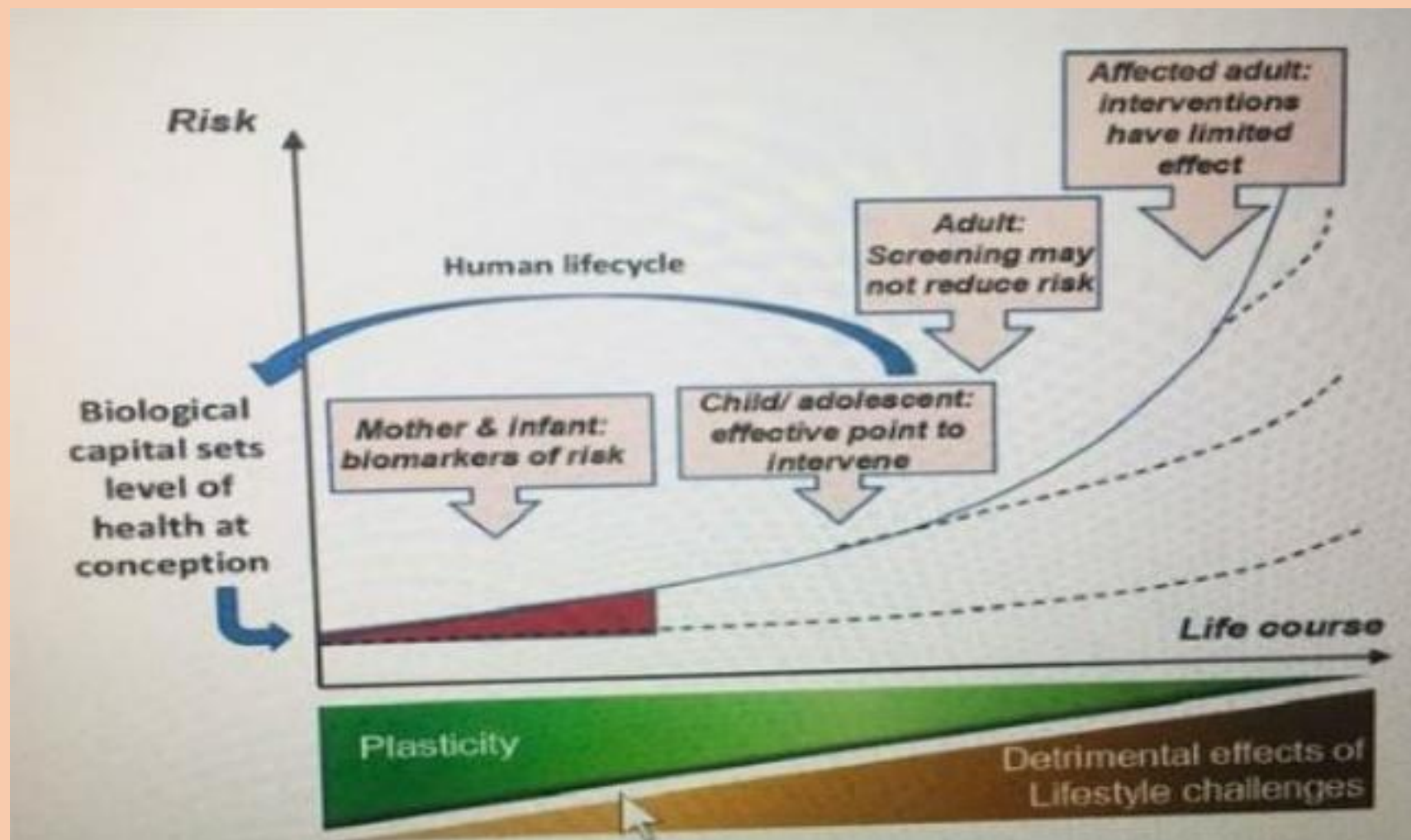


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Magic of growth from Head and then ends on feet. By the time they start walking emotions, motivation , memory, enthusiasm , empathy, Social – Emotional, Linguistic abilities and Cognitive Growth has taken place - Cephalo - Caudal Growth

Life course perspective. The sensitive windows of opportunity for interventions to impact ECD are in the preconception period through to 3 years, and in adolescence (Source: Hanson M, Meeting Presentation: Nurturing Human Capital along the Life Course: Investing in Early Childhood Development, World Health Organization, Geneva, 10–11 January 2013)





How many senses do we have?

Sensory system	Sense Organs	We experience:
1) Visual	Eyes	Sight
2) Auditory	Ears	Sounds
3) Gustatory	Tongue, mouth	Tastes
4) Olfactory	Nose	Smells
5) Touch	Skin	Temperature, pain, vibration, texture
6) Vestibular	Inner ear	Balance
7) Kinesthetic	Muscles and tendons	Sense of body position and movement

Early Child Development 0-3 years Through Sensory Input

This material was developed by The Satya Sai Institute Of Educare-USA and has patent rights on curriculum that was developed 1990- 2004. Some slides were borrowed from Zero To Three.org as SSIE-USA is a registered trainer through organization. SSIE-USA has Patent rights on all books written since 1990, lesson plans, power point presentations, and YouTube videos and content

Developmental Trajectory has 4 main domains that are accomplished through sensory input, acceptance and learn from birth and started the process at 28 weeks in-utero

AREA-1

Physical Health is important to stand on the feet and balance and learn

1. Gross Motor – Power, tone and strength
2. Fine Motor - coordination and fine movements
3. Physical Health and Fitness strength nutrition and immunity

AREA-3

COGNITIVE DEVELOPEMNT

This domain has 4 sub domains

1. Explore and learn through paly
2. Memory
3. Imitation and Role Play
4. Problem Solving skills

Social Emotional Learning – basis of all learning. Has 6 subdomains

1. Emotional trust , attachment with security
- 2.. Self identity , Self –awareness
3. Self-Regulation
4. Emotional Flexibility
5. Being amicable to all
6. Behaviors at all places

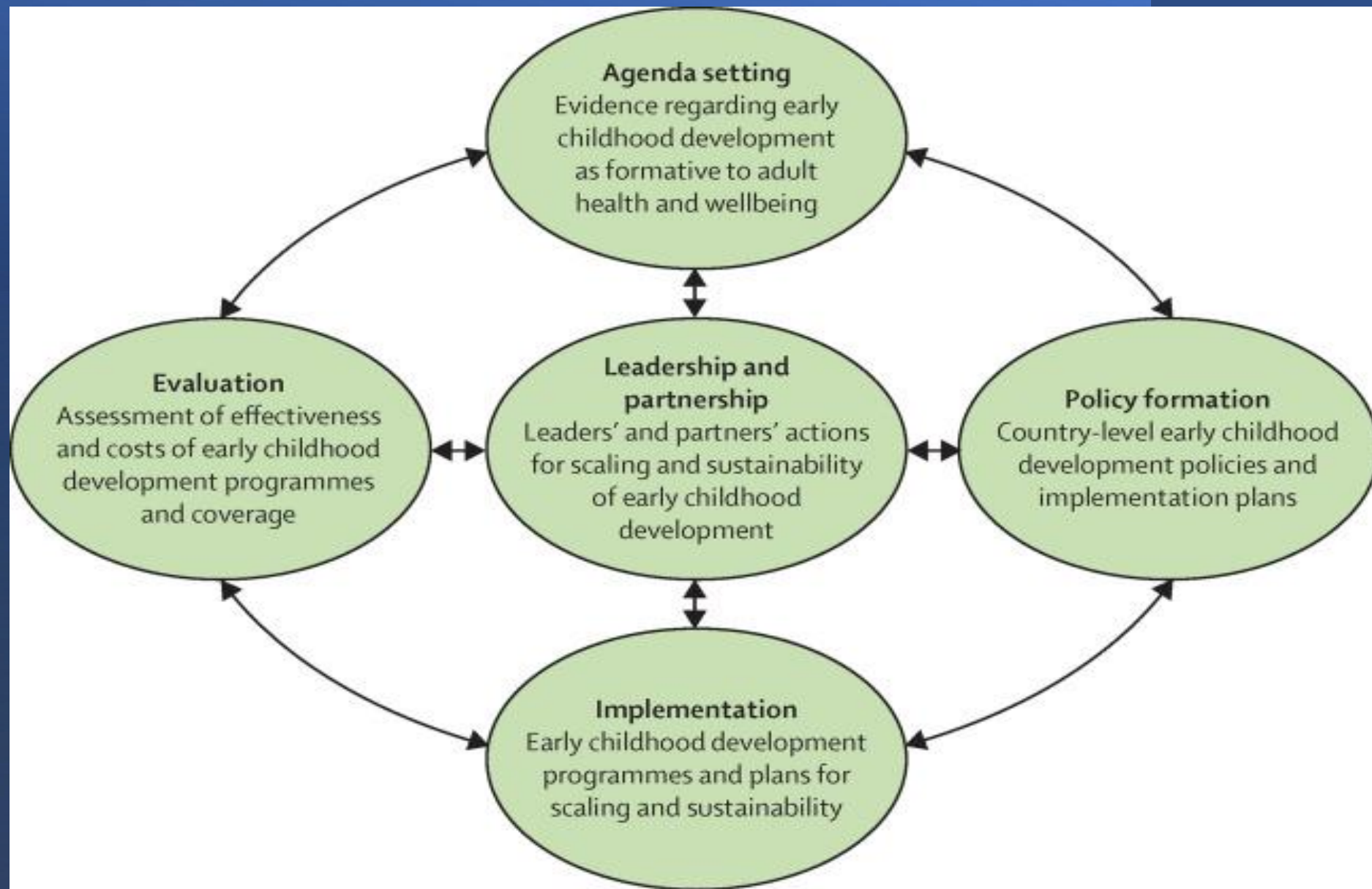
AREA-2

LANGUAGE AND COMMUNICATION

Has 3 Sub Domains

1. Communication Exchange- Receptive Language
2. Expressive Language And Speech
3. Emergent Literacy

AREA- 4



HOW and WHAT TRANSFERS LEARNING

What do practitioners, caretakers need to know:

- 1. Child Growth and Development : All four domains 0 - 60 months, as 100% brain pathways develop , experience dependent (all through life) and experience expectant growth (90% in 36 months)**
- 2. Responsive Interactions and Care Giving Guidance**
- 3. Learning Environment**
- 4. Planning Framework with lesson plans with a standard curriculum**
- 5. Supporting skill development with inclusion criteria**
- 6. Inclusion of Diversity and multiple language development**
- 7. Understanding family relationships and culture**
- 8. Understanding family in relation to Community relationships**
- 9. Inclusion of Diversity from different backgrounds and different abilities**

Early Child Development 0-3 years

Developmental trajectory is 100% complete by 5 years and 90% by 3 years

What are the areas of development and how is it related to Health?

Health: Is “Physical, Intellectual, Psychological, Social- Emotional and Spiritual Wellness”

1. How does an infant develop all faculties to meet the definition of this holistic health?

2. 90 % structurally and functionally within the brain, with nerve pathways

assure the holistic health is set by 3 years of life!

3. Who is responsible and how can we empower the caretaker?

4. What are the components of the Early Child Development ?

HOW DO INFNATS LEARN

It is always person to person relationship of senses connecting with each other and make one event a learning event. Never a gadget.

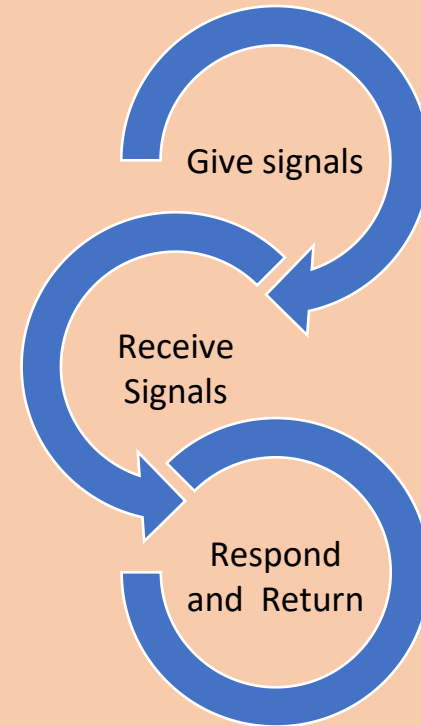
It is Mutual and Only 2 factors- Environmental Epigenetics, Nutritional Epigenetics and Caretaker competencies in responsive care giving

A process of cycle all the time, all day, through

Person to person interaction with love , play and recreation during all routines

This is a give, receive and return response

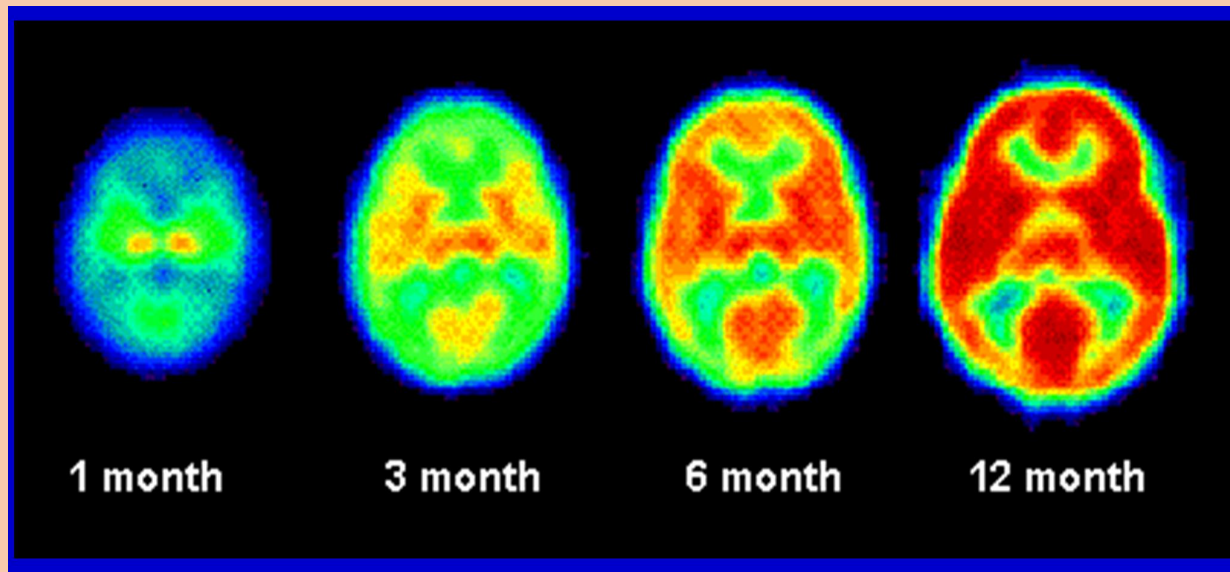
Back and Forth interactions all day



Early Child Development 0-3 years

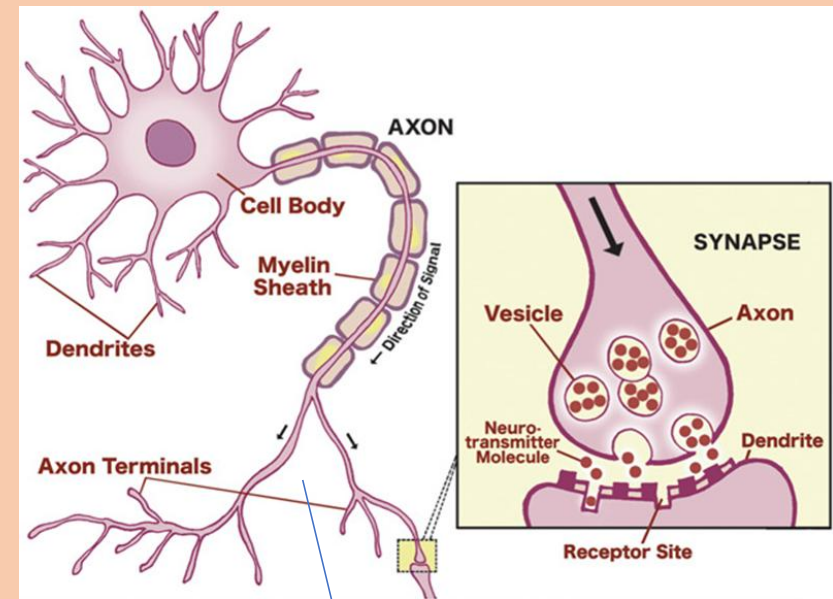
WHY FIRST THOUSAND DAYS ARE IMPORTANT

1. There were no connections within the brain at birth
2. All habits and personality and intellect happens after birth brain connectivity through experience
3. Experiences from growing environment causes connections
4. All are for lifetime and if this is weak future life will have problems
5. Millions of connections happen or donot happen every second - 250,000x10,000perminute or lose 600,000x10,000/minute
6. Every moment and activity matters to transfer learning from adult to infant



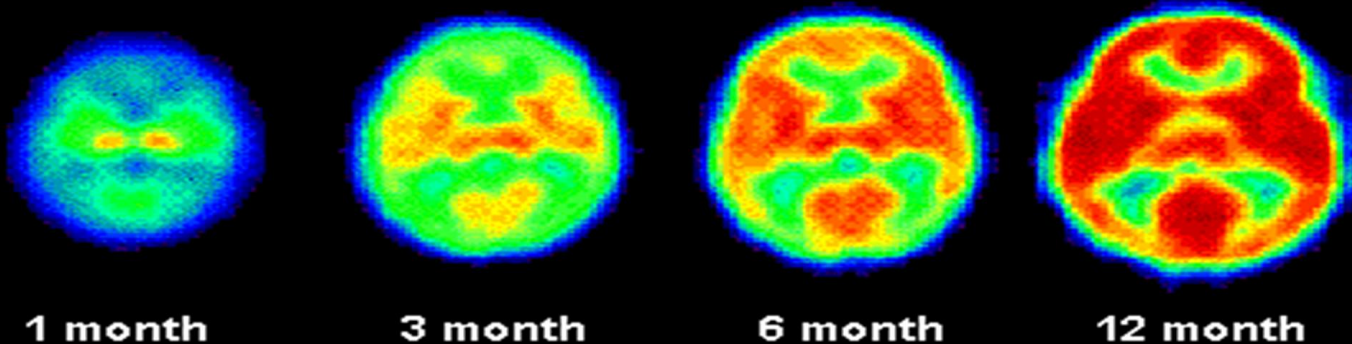
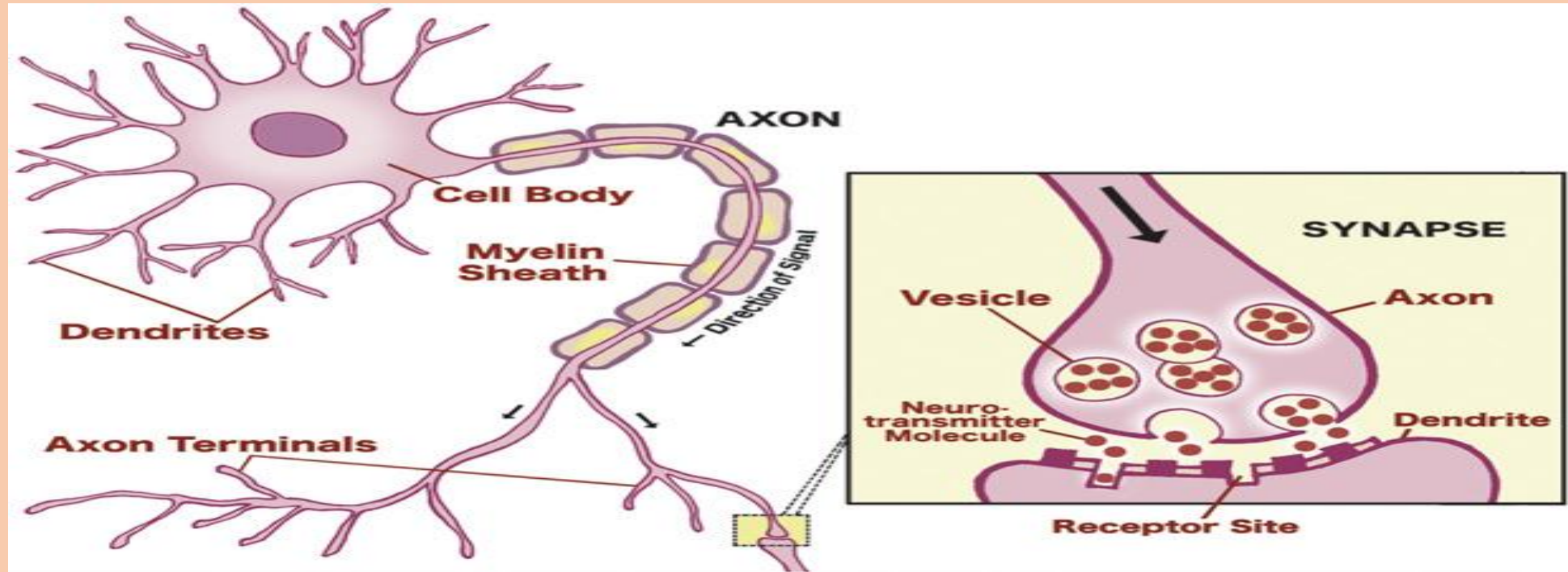
Courtesy Dr. Harry T. Chugani, WSU, Detroit. and now at Nemours Institute Delaware.

Dr. Chugani had shown the activity of brain at various ages and how well the activity in the frontal lobe is set by the 12th month. Infants are born with brain stem behaviors and based upon the experience through MSI they make attachments and opinions of the world around them, mostly the proximal environment. Parents are the first teachers for effective connections. Experience Expectant has time constraints and cells lost if not used. Dependent wiring is lifetime, but thin fibers and takes long time .



.AXONAL GROWTH AND CONNECTIVITY CAUSES REDNESS AS INDICATED IN THE SCAN, showing connectivity.

How Neurons connect to form a hard wire 0 - 3 years (90%) LIFETIME- experience Expectant and Dependent



Experiences

Impact of ACES, Toxic

Stress.

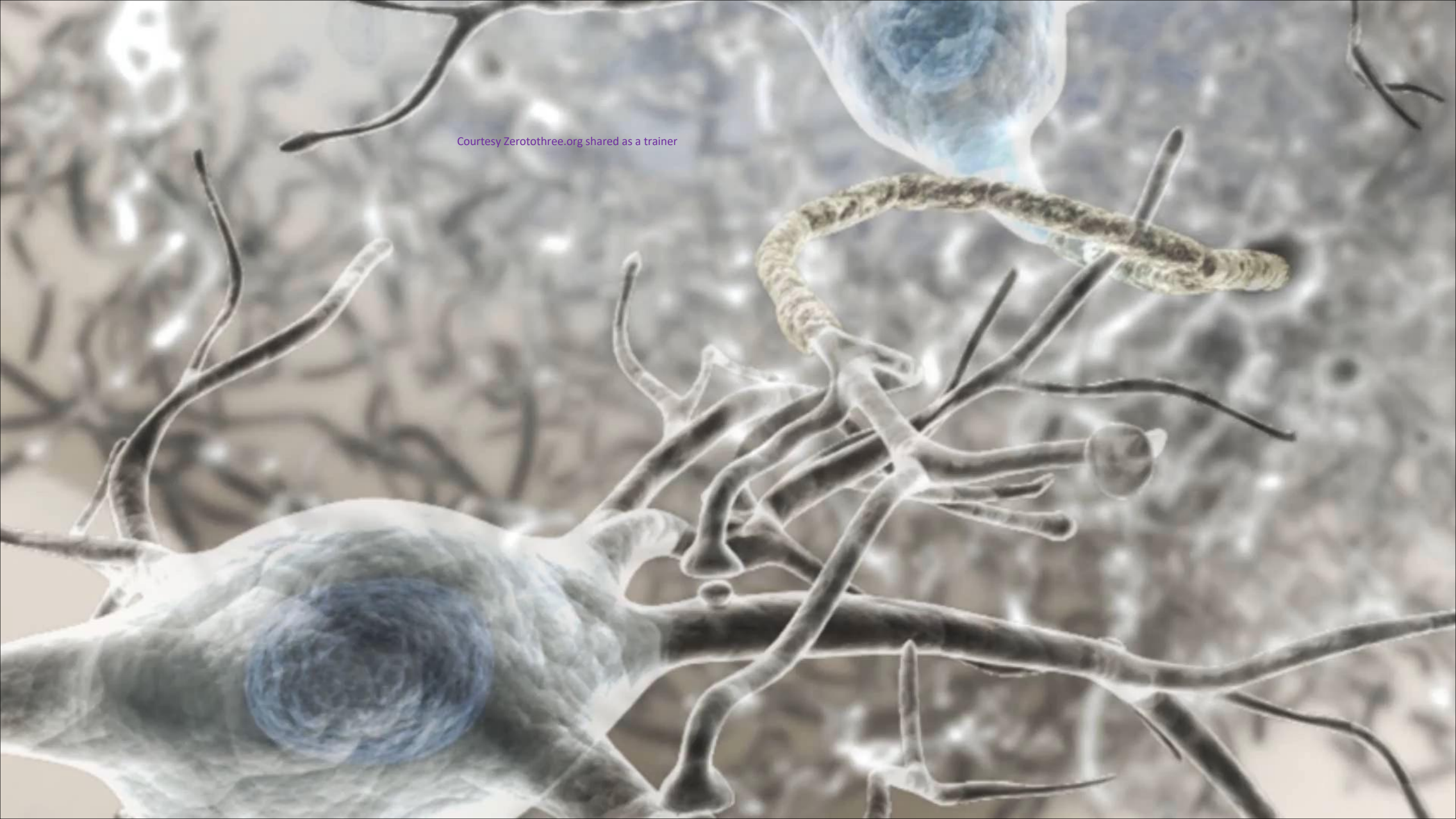
Environmental and Nutritional Epigenetics

Responsive caretaking – Emotional trust and bonding

Nurture

Secure relationships

Courtesy Zerotothree.org shared as a trainer





Courtesy Zerotothree.org for professional training as a trainer

Courtesy Johnson and Johnson Institute in 1997 for professional training and patient care



Johnson & Johnson

The world's most trusted name
in maternal and baby care.

HOW DO CHILDREN - INFANTS AND TODDLERS LEARN

1. Infants learn from Adults and their behavior in all domains of learning
2. They withdraw if there is threat and insecurity and will not learn anything
3. The activities and routines all day have to be intentionally done to transfer learning.
4. Touching, feeling, exploring, listening repeatedly , guided and supported by adult care takers. Moving space and organized routines are important
5. Brain growth is so rapid and every moment counts. Unused cells die down (Apoptosis)
6. Infants learn through rich language – communication, with love , compassion expressed with gentle touch , smile, cuddling, exploration opportunity, compare, label, describe, feel, feel secure and trust adults, routines and structure
7. Good nutrition is important
8. Caretaker happiness and health is important
9. Room and environment has to keep safety and availability in organized fashion

HOW DO WE TRANSFER LEARNING

1. Work on Adult competencies - parents, others and teachers
2. Learn about Early Child Development and trajectory of development
3. Adult caretaker self care – to meet challenges and readjust
4. Develop competencies to handle congenital anomalies and disabilities
5. Develop strategies and tools
6. Learn how to create good environment
7. Learn what is responsive care giving
8. How is responsive caregiving is given
9. Build supporting strategies for education, web - based learning, self instruction materials written and animations
10. Have knowledge about developmental trajectory/Milestone list
11. Develop Observation and monitoring tools

BEST PRACTICES - CONSIDER

1. Evidence based data
2. Adult learning strategies and theories
3. Best instructional methods for all types of learners - Visual, Auditory, Kinesthetics, Touch and supportive
4. All domains of learning are addressed and taught to transfer knowledge to infants and toddlers
5. Be sensitive to culture, language differences and preferences
6. Have routine, structure, organization, clean environment
7. Give opportunity to experience and reflect and scaffold learning
8. Community and family partnerships for culture and disabilities
9. Always have provisions to accommodate infants and toddlers with disabilities (Different abilities)

ROLE OF ENVIRONMENT

1. Cleanliness -
2. Mental state of care takers
3. Family Harmony and order
4. Healthy Lifestyle - Environmental Epigenetics prevention of expression of risk genes. Risk genes should not get turned on
5. Healthy Eating habits – Nutritional Epigenetics and biome management for neuroplasticity and immunity.
6. Accessibility to educational materials like, books, toys, Gym Mat,
7. Availability of free resources like library
8. On going caretaker training , Observation, Intervention and Tracking
9. Milestone and developmental trajectory check list availability
10. Easily comprehensible materials
11. Ongoing professional training on methods, tools, strategies and reflective feed back and monitoring

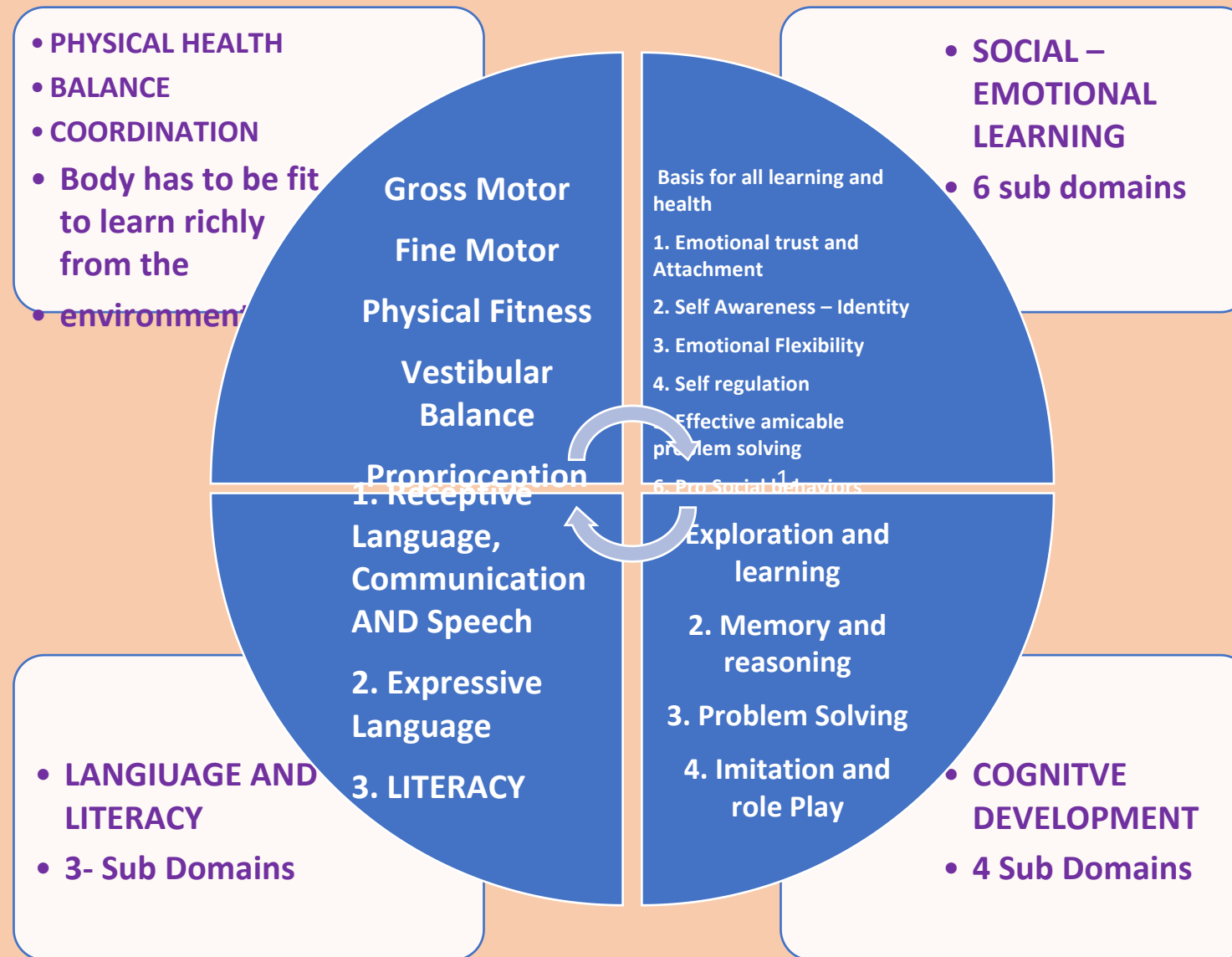
ROLE OF ENVIRONMENT AND SCHOOL CLIMATE

1. Supporting skill development with inclusion criteria
2. Inclusion of Diversity and multiple language development
3. Understanding family relationships and culture by trainers
4. Understanding family to Community relationships
5. Inclusion of Diversity from different backgrounds and disabilities
6. Health guidelines, Safety, Nutrition for brain and immune boosting
7. Ethics and professionalism
8. Observation, Assessment and Early Child Interventions (ECI)

RESPONSIVE CARETAKING

1. Soft tone of voice and low noise levels
2. Musical rhyming verbal communication
3. Happy, smiling facial expression
4. Cues of infant are quickly picked up and attended to
5. Being able to express love and infant feels love and affection
6. Age-appropriate interaction to promote learning in all 4 domains
7. Positive redirection and limit setting with love
8. More TIME IN activities and praise
9. Rich language use , interactively and with emotional expression
10. Offer exploration and limited freedom for choices
11. Scaffold learning with open ended questions
12. Cue into child's interest in activities and be flexible to shift
13. Talk, Play, Interact, reward use every moment intentionally to teach

HOW CAN WE GIVE RESPONSIVE CARE FOR EACH DOMAIN OF LEARNING



SCENARIO AND STORY LINE

MAYA and RAJA waited 16 long years after marriage . Both sides of family are very supportive. The infant's arrival and post delivery celebrations were all lined up and easier because of elective caesarean section. A scenario of using prevention of future problems from birth. With background information of first thousand days of primary net work formation based upon experiential neural pathways development in Health, Fitness, Nutrition, SEL, Language, Literacy ,Cognitive developmental trajectory during prenatal and immediate post partum period

Group -I

0 to 2 month providing nurture

Scenario is real experience and case study on how the emotional brain of infant at birth is fully developed and is sensitive . Immediate care determines epistemic trust , safety and security for thriving vs withdrawal and survive with fear, flight or FIGHT with ANGER and REJECTION

Raja and Maya were happy to have a baby boy after 16 years of marriage, three failed attempts of IVF . Upper middle class, educated background . Have excellent loving family support from both sides, excellent prenatal care, nutrition and spiritual background. No substance use, smoking or bad tempers. Had some prenatal counseling on the role of experiences that will influence the developmental trajectory, role of nurture , do and don' t of first thousand days.

Infant went home and from the at home, infant has been crying daily from 4 pm till 9-10 pm daily from the first day . All members are anxious that something is wrong and they come to you .

History, work up, assessment and counseling seeing. Infant was 6.6 lbs at birth and on the 7 th day, with exclusive breast feeding is 6.2 lbs, voiding 6 times per day, slightly yellow in bulbar conjunctiva and a small sub conjunctival bleed . He was a NSVD

Sent from my iPad

FOR VIDEO DISCUSSION

1. Parents forget inspite of counseling as they become anxious
2. Stress of caring for newborn and giving up sleep is a challenge parents are not prepared for even after prenatal counseling.
3. Crying is misinterpreted as pain and search for fixing up.
4. Sneezing is common . Hiccups are common.
5. Infant will get skin sensitization by using perfumed creams , lotions, soaps and powders or corn starch.
6. Infant will have gastro colic reflex and will have a bowel movement after every feed .That changes to once in 5-7 days in breast fed infants by 3 weeks
7. The sleep cycles of circadian rhythm will start at 10 weeks when brain is able to adapt and secrete melatonin.
8. The routines that parent can give with a structured schedule, gives trust , security, learning through demand , receive love, demands met and gratification for verbal and nonverbal commands.
9. Responsive caregiving is essential and family support for new mom is important. Extended family should help and not take over
10. Diaper cleaning wipes do cause skin irritation and diaper rash.
11. Infants have sleep cycles that rapidly transit – 6 states of behavior and optimal learning is done during QUIET ALERT STATE - Infant moves arms and legs, looks around is not sleepy and learns with quality time spent by parents and caretakers.
12. Active Alert State - kicks arms and legs vigorously and in Distressed Heightened Alert State Cries . REM Sleep, Non REM Sleep, Deep Sleep

First Thousand Days of ECD - ECE Are Inseparable

1. Screen for maternal Depression every post partum visit -PHQ9 or HAMILTON Depression Scales
2. Explain Crying is a verbal Communication
3. Arching back, looking and turning to voices is nonverbal communication
4. Crying is not pain
5. Please pick up infant and comfort in 30 seconds and gently hold close to skin , to skin touch with parent .
DO NOT MAKE INFANT MOVE UP AND DOWN SHAKING !
6. Sway side to side . Infant should not be moved but held
7. Take infant to dark room, no noise, low volume classical music of single instrument, soothing and gently touch skin with palms from buttocks up to shoulders in a fanning fashion. Music placed at 25 cms distance from infant.
8. Stroking movement from head to shoulders
9. Assure that infant faces stress during day, day and night cycles are not set and rest when infant is sleeping during day -time
10. Make sure gassy foods are not consumed by mom in large quantities . Anything in moderation is fine
11. Make sure breast feeding includes hind and fore milk concept and give galactogogues
12. NO powders, lotions or oils on infants but plain vaseline lightly applied after bath

First Thousand Days of ECD - ECE Are Inseparable

13. Infants cry to be picked up, change of diaper, wetness, feeding or just hold me. But the crying should be attended to after waiting 30 seconds for demand and gratification
14. Responsive care giving is low volume speech of “parentese” style
15. Loving , soothing voice , gentle touch, eye contact and hug and skin to skin touch
16. Infants sneeze as they are getting colonized with environmental agents; and developing lining immune cells and protectors. They cannot breathe through mouth. If there are secretions use Normal Saline and bulb syringe to get secretions out.
17. Sudden jerky movements and mild clonus movement are normal
18. Use Aveeno, or gentle soap substitutes
19. Wash diaper area with water, pat dry, air out for 2 minutes and place new diaper.
20. Infant cannot adjust to you right away living outside mommy’s tummy. So parents adjust to infant’s normal newborn behaviors
21. Place music and while awake play with infant by talking during diaper change , during feeding, GYM mat activity of music coming from different directions, touch therapy on back and in supine position make eye contact and talk with adult language . DO bicycling exercises. Stretch arms and legs gently and stroking movement of soles and palms to stimulate passive grasp and myelination helps motor skills
22. During this activity infant lifts neck up , helps physical strength of back muscles, motivation, realizes and listens to music, with a directional sense, relaxes internally from soothing parent’s voice, builds security , trust and belongingness of self identity, as caretaker looks into eyes and moves a toy, infant follows and makes an association of toy, rattle, sound and gets motivation to touch.
23. This is Individual Play, Sensory play, unintentional and becomes suddenly a learning process of an object and function
24. Infants learn any language and distinguish phonemes till 5-6 months. There fore 1 adult speaks one language and another adult speaks another language. Infant can develop all languages if one strictly communicates in one language. Communication does not need speech in infants . But adults cue into infants gestures and responds. That is important task for adults .

This responsive care from birth gives security and internal relaxation and calmness to learn.

The video should show the therapy of tummy time exercises and narrate the above facts and one realize that speech, language, SEL, and motor and Cognitive are happening just with that one act and teaches trust to make a strong foundation for thriving