The effects of illness and pain on child development

Mildmay, Uganda – August 2017
Children and pain – things to keep in mind

• Babies and young toddlers can't describe their pain or ask for help.
• Chronic pain during childhood may change the wiring in the brain, leaving a person more vulnerable to pain years or decades down the road.
• Children are especially vulnerable to fears and anxieties that heighten their pain.
• Children may avoid talking about pain, because they fear going to the doctor or hospital.
• Cognitively impaired children may have particular problems telling you they're in pain.
First, let’s revisit childhood development...
Value of understanding child development

• Children are not ‘mini-adults’
• They see, feel and experience the world in a different way, which changes as they develop
• Each child needs to be assessed and understood as a unique individual
• Children can develop at different rates down different developmental lines
• Child development is not fixed but is affected by circumstances and environmental factors
Developmental lines

- Perceptual
- Cognitive
- Language (Receptive & Expressive)
- Social
- Emotional
- Moral
- Spiritual
Developmental stages

Just as children develop along different lines (and may develop faster down one line than another) each line has several ‘stages’ that a child can progress along, or regress back down.
<table>
<thead>
<tr>
<th>Age</th>
<th>Physical</th>
<th>Language</th>
<th>Social</th>
<th>Emotional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 3 months</td>
<td>Control of eye muscles; lifts head if on stomach</td>
<td>Cries, coos, grunts</td>
<td>Asocial</td>
<td>Shows distress</td>
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<tr>
<td>4 – 6 months</td>
<td>Control of head and arm movements; grasping, rolls over</td>
<td>Babbling, makes vowel and half consonant sounds</td>
<td>Smiles at faces; recognises mother</td>
<td>Shows distress and delight</td>
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<tr>
<td>10 – 12 months</td>
<td>Stands; creeps, apposition of thumb and finger</td>
<td>One or two words; imitates sounds</td>
<td>Responds to name; waves bye-bye</td>
<td>Fears strangers; affection</td>
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<tr>
<td>18 months – 2 years</td>
<td>Runs; kicks a ball; builds a tower; bladder/bowel control</td>
<td>Vocabulary of more than 200 words</td>
<td>Shows resentment</td>
<td>Temper tantrums</td>
</tr>
<tr>
<td>2 – 3 years</td>
<td>Rides a tricycle; uses crayons; builds tall towers</td>
<td>Uses short sentences; may start to stutter</td>
<td>Dependent; possessive; parallel play</td>
<td>Humour; uses facial expressions</td>
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<tr>
<td>4 – 5 years</td>
<td>Skips, puts on own clothes, copies square and triangle</td>
<td>Mastered basic grammar; vocab. of more than 2000 words</td>
<td>Prefers to play with others; competitive</td>
<td>Jealousy; Responsibility and guilt; pride</td>
</tr>
</tbody>
</table>
Cognitive development

- **Sensorimotor**
  - 0-2 years

- **Pre-operational**
  - 2 – 6/7 years

- **Concrete operational**
  - 7 – 11/12 years

- **Formal operational**
  - 12 - adulthood

*Piaget*
Critical learning periods

• We learn more in the first five years of our life than in all the rest of our lives put together
• Stimulating interaction between the child and its physical and social surroundings is extremely important
• Development ‘fixes’ after 3-5 years as the brain loses its ‘plasticity’
• Any disturbance, such as poor health (chronic pain) or major disruption of the family, can significantly affect the development of young children on all levels

- PET Scan of a neglected brain of a 3 year old.
- PET Scan of a stimulated brain of a 3 year old.
The impact of illness on child development

“It is clear that for healthy children, developing the mind and body requires work to reach the next task or stage. Now consider the ill child, who must develop alongside his well peers. This child is facing a life-threatening illness in addition to growing and developing. Clearly, illness and disease affect childhood development for the ill child and the siblings as well.”

(Armstrong-Dailey & Zarbock, 2001)
Infant

- Birth to 1 year
- Rapid growth and change
- Decreasing dependency
- Increasing individuality
- Expanding awareness
- Beginning of socialisation
How does illness affect an infant?

• A serious illness can impede this development by causing
  • separation from the mother
  • enduring painful procedures
  • forced alterations in diet and sleeping habits

(Armystrong-Dailey & Zarbock, 2001)
Toddler

- Children between 1 – 3 years
- Leap forward in motor development – walk, run & climb and increase in fine motor skills
- Increases in mental reasoning skills
- Less dependent on parents and increased sense of autonomy
- Beginnings of social and emotional growth
How does illness affect a toddler?

• Illness endangers the task of **autonomy** for this age group.
• Pain, anxiety, and **separation from parents** are some of the toddler’s fears concerning illness.
• The emotions of these children are **reactions** to the emotions displayed by the parents/family.
• **Regression**, including physiologic and emotional, is the main coping skill of a seriously ill toddler.
• Parents may fear to discipline during this difficult time, but toddlers can feel insecure without the presence of the usual and consistent actions taken prior to getting sick.

*(Armstrong-Dailey & Zarbock, 2001)*
Pre-schooler

- Children between 3 – 6 years
- Concrete and literal thinking
- Improved control of body functions
- Sense of initiative
- Learn through experience with their whole body using all their senses
How does illness affect pre-schooler?

- Ill preschoolers may act aggressively in response to the illness.
- They may view the illness as punishment for their wrong-doing or wishing for or thinking about “bad” things.
- It is important to reassure them that nothing they have done caused the illness and it is not a form of punishment.

(Armstrong-Dailey & Zarbock, 2001)
School age child

- Children between 6 – 12 years
- Very active and verbal
- A sense of industry is the task at this point in childhood
- Mastery of scholastic skills
- Self-esteem and independence bloom as new responsibilities are undertaken successfully
- Strong sense of justice
- Becoming socially competent
How does illness affect a school aged child?

• Being seriously ill during this time can affect independence, causing a sense of inadequacy.
• Development of poor self esteem if scholastic skills are not mastered
• The presence and approval of friends are important during this time.
• Most likely, the illness will cause separation from peers, causing distress for the school-age child

(Armstrong-Dailey & Zarbock, 2001)
Adolescent

• Between 13 – 19 years
• Peers play more of a role in the life of an adolescent.
• Can think symbolically and hypothetically.
• Self-conscious
• Interested in peer acceptance and attractiveness to the opposite sex.
• Beginning to challenge authority.
• Want to separate themselves from children.
How does illness affect adolescents?

• The acceptance of peers can directly influence the adolescent’s self-esteem. They want to fit in and be part of the group.

• The ill adolescent may experience significant suffering related to hair loss or weight gain associated with medication side effects. This makes it extremely difficult to “fit in”

(Armstrong-Dailey & Zarbock, 2001)
Effects of illness and chronic pain on child development

• Living with pain for a long period of time can adversely effect how a child feels about himself
• Depression and anxiety
• Physical limitations leading to frustration
• Disrupts sleep
• School attendance is affected
• A child’s friendships will be affected
• Lack of normalcy in the child’s life
• Can have an enormous impact on the entire family
Chronic pain eats one like a lovely bar of chocolate! Chronic pain dissembles your life so badly, you’re not sure in which direction to turn.

Huyaam Samuels - 18 years
Questions and comments