Neurodevelopment and mental health assessment of children in the DR Congo

Implications for policies and research

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Background

- Diet is an important determinant for mental health and cognition.
- Exclusive breastfeeding or staple food such as cassava may impact child behavior and cognitive functions.
In Africa little is known on the impact of diet on child behavior and cognition. Therefore, this project looks at the impact of nutrition/diet on child mental health and cognition in rural Africa DRC & Burkina Faso.
Therefore, this project collaborates with two existing projects:

- Promise Saving Brains (Uganda, Burkina Faso)
- Konzo (DRC)
Promise SB follows-up children born from the EBF trial in Uganda and Burkina.

Konzo project follows-up children affected by konzo (an irreversible upper motor neuron disease linked to the chronic consumption of cyanogenic cassava).
Objectives

- This collaborative project “Enfance Africaine”
  - Establishing prevalence estimate of childhood mental health conditions
  - And studying neuro-psychometric profile of the vulnerable children in the Burkina Faso & DRC cohorts.
PROMISE EBF
Uganda/Burkina F.

PROMISE SB
Effects of EBF on cognitive fnns and mental health

Konzo project (DR Congo)

Burkina Faso

Uganda
See the child mental Child Health

Enfance Africaine: Mental Child Health
MHS organization in DR Congo?

Central level (Ministry of Health)
- 13 Directions
- 52 specialised programs

Provincial level:
- 11 Provincial Health Districts
- Tertiary referral hospitals

Community / operational level
- 516 Health zones
- 424 General Referral Hospitals
- 8500 Primary care centers

National Mental Health program:
- No specified program for children

6 Hospitals
- Neuropsychiatry care

General Health Hospitals
- Primary care centers
  (lack of trained mental health professionals)
Methods


- Kahemba (400 km from Kinshasa, capital)
- Rural area affected by konzo
- Children 2 years old residing in the area
Methods

- Case-control study
  - 150 children (75 cases & 75 controls)

- Approach
  - Interview with parents
  - Clinical and neurological evaluation
  - Behavioral & neurocognitive assessment
Methods

- Parents interview:
  - HSCL-10 (mother anxiety & depression)
  - Child neonatal & medical history
  - Learning and home environment (Home)
  - Parent education style
  - Nutrition and food security
Methods

- Behavior & neurodevelopment / cognitive assessment:
  - Ten Question Questionnaire (cognitive dev.)
  - Mullen Scale of Early Learning
  - Strengths & Difficulties Questionnaire (SDQ)
Methods

- Clinical assessment
  - Clinical exam
  - Anthropometry
  - Neurological
Implementation results

Implications for research

- Participants
  - 116 children out of 150 planned

- Reasons:
  - Refusal & Parents reported false age
  - Moved to Angola & Orphans
Implementation results

Implication for research

- Interview with parents:
  - Irregularities (caretakers / RECO)
  - E.g. 16 mothers non mothers/caretakers
    Extra time to retraced 11.
  - One child brought twice, stereotyped answer
Implementation results

Implication for research

- The selected instruments / tools:
  - In general easy to administer and acceptable
  - Only 13 children refused to perform the MSEL
  - 3 did not complete their MSEL
  - HSCL-10: stereotyped answers?
Implications for policies & research

- There are benefits, challenges and limitations with the use of new tools and their administration in new settings.
- Important to ensure that things are done correctly.
Implications for policies and research

- Understand the local and cultural setting
- Important to involve local human resource but ensure that they understand the importance of the study
- Important to involve the health system at community level
Implications for policies and research

National level

- No child mental health policies
- Awareness, understanding and acknowledgment of mental health problems among children
Implications for policies and research

National level

- A number of on-going research projects on child mental health in DRC
- College for training of health professional in mental health (Eastern Congo since 2014)
Implications for policies and research

National level

- Still a long way to go
- The number of female neuropsychiatrists have increased from 1 (2002) to 6 (2015)
Implications for policies and research

Provincial level & operational level

- Awareness of child mental health problems among health workers, teachers, parents, communities...
- Still remains a taboo in rural areas
Conclusion

- There is no child mental health policies in DRC but improvement in awareness & management of child mental health
- Still remains a taboo in rural areas
- Important to understand cultural challenges & differences
Conclusion

- There is a need for more research on child mental health
- Specially in poor settings due to diverse factors impacting mental health
- Work together at the national & community levels to develop policies & strategies
Partners & Collaborators

- University of Kinshasa, DRC
- University of Bergen, Norway
- University of Michigan, USA
- Makerere University, Uganda
- Centre Muraz, Burkina Faso
- Promise SB consortium
- Konzo project consortium
Thank you