A RCT comparing OT interventions that aim to improve developmental outcomes for HIV+ children (aged 6 months – 5 years) on ART

Robyn Meissner, Pam Gretschel and Elelwani Ramugondo
WFOT Congress 25 May 2018
Rationale

• HIV: neurodevelopmental impacts
  – Gross and fine motor
  – Cognitive
  – Behavioural
  – Emotional
  – Social

  – Encephalopathy (HIVE)

• No data on OT interventions focusing on developmental delay within this population
Objective

6 months – 5 years old
Pre-formal school going

- Similar developmental outcome
- GMDS-ER
  - Locomotor
  - Personal-social
  - Language
  - Eye-hand coordination
  - Performance
  - Practical reasoning

- Similar functional independence outcome
- Paediatric Functional Independence Measure (WeeFIM)
  - Self-care
  - Mobility
  - Cognition
Sample

- 79% isiXhosa
- 18% English
- 3% Afrikaans

- 61% crèche
- 32% caregiver
- 7% day mother

6-61 months: 27% 73%

12-63 months: 62% 38%

Experimental: 15
Control: 13
Results

Baseline: GMDS Average Quotients

- Locomotor: 81.4
- Personal/Social: 94.1
- Language: 75.2
- Eye-hand coord: 76.6
- Performance: 67.9
- Practical reasoning: 74.6
- Total: 78.7

65.2% developmentally delayed
Results

• Post
  – Similar quotient scores with no significant differences
    • Total GMDS
    • GMDS subscales
    • Total WeeFIM

  – Both groups had better quotient changes over the time period with intervention
Pre-Post: Average Quotients
Dosage

• Average attendance

- Clinic factors
- Caregiver motivation and priorities

5.2 sessions 5.4 sessions

Experimental Control
Conclusion

• Non-inferior results
• PICIHBI = Alternative intervention
  – With greater reach
  – Caregiver focused – future/longer lasting benefits for child?
• Conventional OT
  – One-on-one attention
  – logistically easier
For more information: