

ASSESSING THE ACCEPTABILITY AND FEASIBILITY OF THE SCALABLE TRANSDIAGNOSTIC EARLY ASSESSMENT OF MENTAL HEALTH (STREAM) IN INDIA AND MALAWI

V. Ngoma¹, R. Nkhata¹, A. Bennie¹, C. Namathanga¹, M. M. Crespo-Llado², M. Gladstone², E. Mbale¹, M. Belmonte³, S. Bhavnani⁴, R. Bishain⁵, S. Chandran⁵, T. Del Bianco⁶, G. Divan⁴, D. Gajria⁴, S. Gulati⁷, M. H. Johnson⁸, E. Jones⁶, A. Kumar⁵, G. Lancaster⁹, G. Lockwood-Estrin¹⁰, L. Mason¹¹, G. McCray⁹, N. Midha⁴, U. Kawelama¹, D. Mukherjee¹², V. Patel¹³, A. Ranjan⁴, A. Singh⁴, J. Singh⁴, N. Thompson¹⁴, E. H. Williams¹⁴, and B. Chakrabarti¹⁴

¹University of Malawi, Malawi; ²University of Liverpool, UK; ³Com DEALL Trust, Bangalore, India; ⁴Sangath, New Delhi, India; ⁵Indian Institute of Technology Bombay, India; ⁶Birkbeck Centre for Brain & Cognitive Development, UK; ⁷All India Institute of Medical Sciences, New Delhi, India; ⁸University of Cambridge, UK; ⁹Keele University, UK; ¹⁰University of East London, UK; ¹¹King's college London, UK; ¹²Centre for Chronic Conditions and Injuries, Public Health Foundation of India, India; ¹³Harvard Medical School, USA; ¹⁴University of Reading, UK

Background

- The STREAM consortium has developed a mobile platform for use by non-specialist workers (NSWs) to assess neurocognitive development in children aged 0-6 years in low-resource settings
- The STREAM platform is a combination of three existing tools; the Malawi Developmental Assessment Tool (MDAT), Screening Tool for Autism Risk using Technology (START), and Developmental Assessment on an E-Platform (DEEP)
- The STREAM platform seeks to provide an easy-to-use, low-cost, and culturally appropriate alternative to existing developmental assessment tools

Objectives

Assess the effectiveness and acceptability of STREAM tool on children aged 0-6 years in India and Malawi



Method

Sample & Recruitment strategy

Figure 1. Flowchart of participants

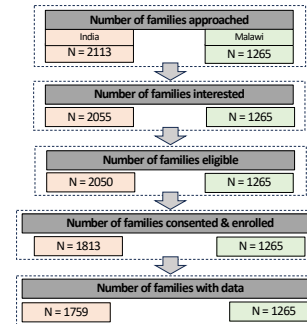
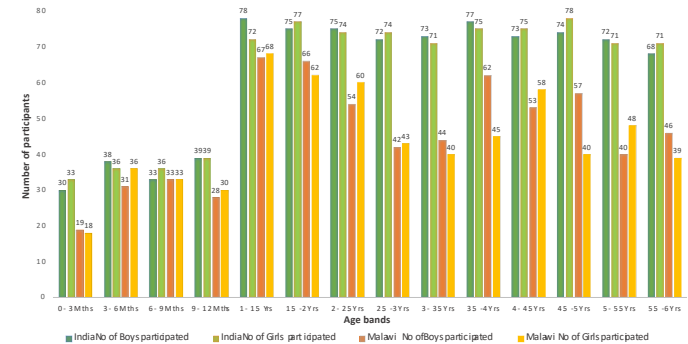
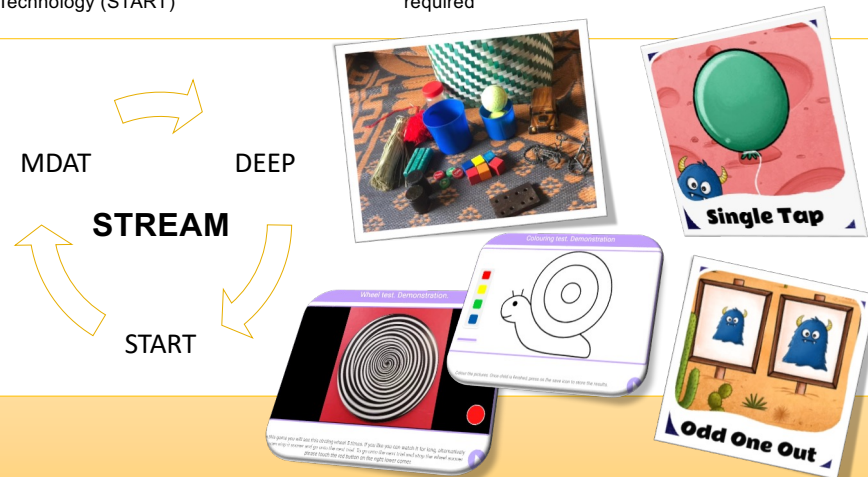


Table 2. Sample by site, age, and gender strata

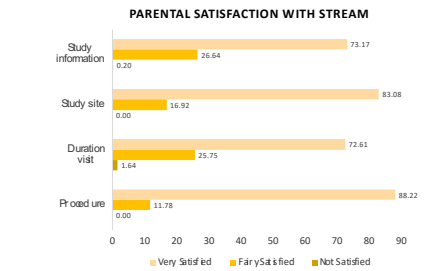
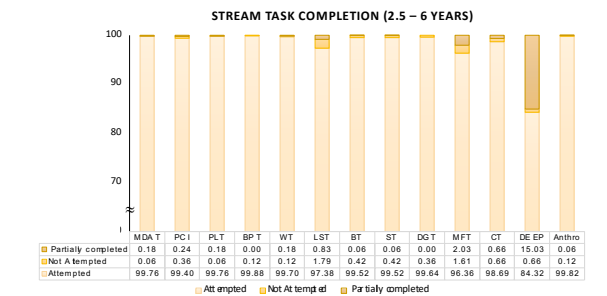
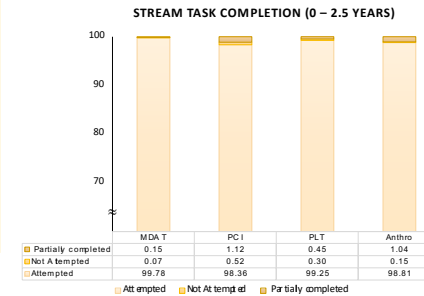


What's the STREAM APP?

Tool	Ages	Timing	Training?	Domain	Procedure
Malawi Developmental Assessment tool (MDAT)	0-6 years	30 to 40 minutes	Yes	Language, motor, visual-spatial	Child administration
Developmental Assessment on a E-Platform (DEEP)	2 to 6 years	20 to 30 minutes	Some training required	Cognitive/reasoning, executive functioning, visual-spatial, learning/memory	Child administration
Screening Tools for Autism Risk using Technology (START)	2 to 6 years	20 to 30 minutes	Some training required	Cognitive/reasoning, visual-spatial	Child administration



Results



Conclusion

The games/task included in the STREAM app were successfully completed by most children. For the older group, DEEP presented the lowest ratios of completeness, which was associated with children's fussiness and difficulty to keep their attention. Most caregivers responded positively to the assessment session and tool. In summary, the STREAM App is proving to be a scalable and viable way to assess children's neurocognitive development in Malawi and India by non-specialist workers. By 2024, this study will provide normative data on key neurodevelopmental domains in Malawi and India as well as evidence of its clinical utility in the assessment of neurodevelopmental disorders

