



AFRICAN BRAIN
AND COGNITIVE
DEVELOPMENT
2023

1st *hybrid*
KNOWLEDGE
EXCHANGE MEETING



6

Sept.
2023

AFRIBCD KNOWLEDGE EXCHANGE MEETING 2023

MEETING PROGRAMME

SCAN ME



JOIN THE COMMUNITY

AfriBCD is funded by the UKRI Economic and Social Research Council Secondary Data Analysis Initiative and an Insight Development grant from the Social Sciences and Humanities Research Council of Canada.



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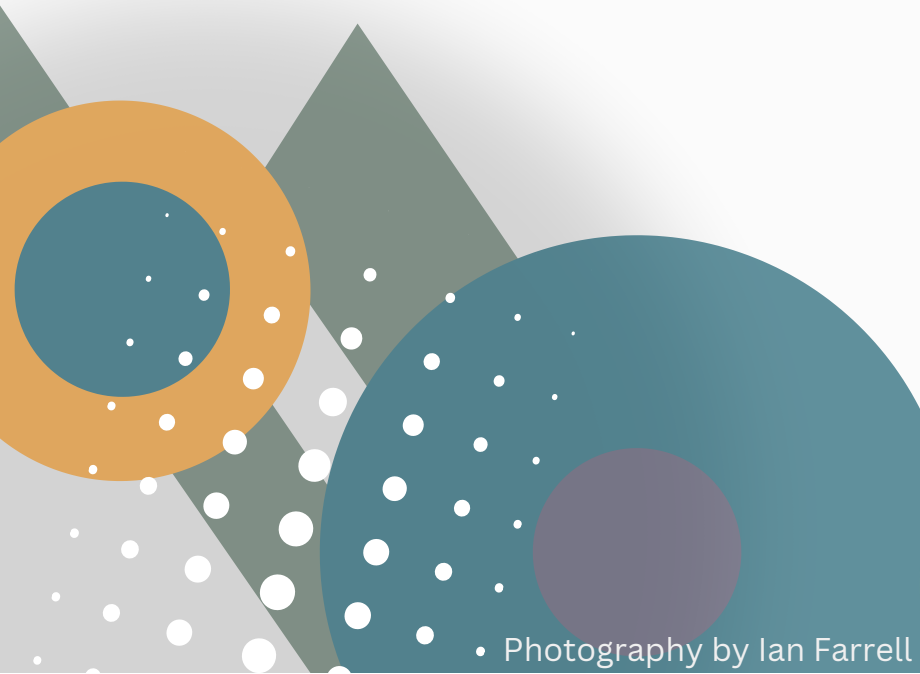
WELCOME

Join us for the first African Brain and Cognitive Development network (AfriBCD) knowledge exchange meeting. We will bring together researchers and partners who are interested in conducting and supporting developmental research in Africa.

We will showcase work from leading experts in the areas of child and adolescent neurocognitive development and mental health, as well as representatives from organisations that support research and scientists in Africa.

By bringing together partners from around the world, this conference provides an opportunity for networking and collaboration. We look forward to welcoming you to the beautiful Newnham College, Cambridge, and learning about your work.

- AfriBCD



CONTRIBUTORS

This meeting was organised by Drs Bosiljka Milosavljevic and Sarah Lloyd-Fox. Together with colleagues in The Gambia and UK, they work on the Brain Imaging for Global Health project (BRIGHT; www.globalfnirs.org), which examines neurocognitive development from pregnancy to early childhood in The Gambia.

In conjunction with her work on BRIGHT, Sarah leads several multi-disciplinary projects, which examine developmental trajectories of early cognitive and brain development during pregnancy, infancy, and early childhood, and explore how family and environmental context shape early life. These include the PIPKIN (www.pipkinstudy.com) and the CoCoPIP (www.pipkinstudy.com/covid) studies.

Bosiljka is a postdoctoral researcher whose work aims to identify infant markers of child cognitive, social, and emotional outcomes. She is particularly interested in how psychosocial risk and protective factors contribute to early development. In addition to BRIGHT, she has worked on prospective longitudinal research that explores early development of autism, ADHD, and anxiety.

They both have a strong interest in supporting the implementation of neurodevelopmental research into more diverse settings around the world with the aim of supporting all children achieve their full potential.



**BOSILJKA
MILOSAVLJEVIC**

AfriBCD Founder, Conference Organizer

✉ bm618@cam.ac.uk

🌐 [/bosiljka-milosavljevic](https://www.linkedin.com/in/bosiljka-milosavljevic)

🐦 @BosiljkaMilosav



**SARAH
LLOYD-FOX**

AfriBCD Founder, Conference Organizer

✉ sl868@cam.ac.uk

🌐 [/sarah-lloyd-fox-29b06789](https://www.linkedin.com/in/sarah-lloyd-fox-29b06789)

🐦 @foxtexel



**ANNA
BLUMENTHAL**

AfriBCD Founder



**CAYLEE
COOK**

AfriBCD Founder



**ISABELLE
BLANCHETTE**

AfriBCD Founder



**CATHERINE
DRAPER**

AfriBCD Founder



**TAEKO
BOURQUE**

AfriBCD Head of Operations

www.taebourque.ca

✉ taebourque@gmail.com

🌐 [/taebourque](https://www.linkedin.com/company/taebourque)

🐦 @taebourque

Taeko manages the Community of Practice, website, and social media accounts. She focusses on organisation, implementation, content curation, and visuals for AfriBCD (i.e., this conference programme).

We would like to express our gratitude to **Graeme Ross**, who provided invaluable guidance during the visa application process, and to **Petra Georgoulis Hluzova** and **Sam Day** for their support with administration and finance.

IAN FARRELL

Photographer; www.ianfarrell.com

*Photos are from The Gambia.

CAROLINE WALKER

AfriBCD logo design; www.carolinemwalker.com

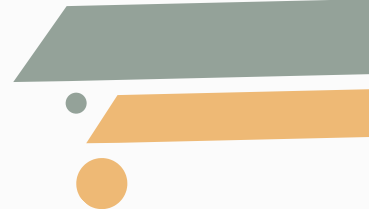
🐦📷 @biomedvisuals



SCHEDULE

The entire event will be held at the **Cynthia Beerbower Room**

Zoom link sent to registered email



- 9:00 - 9:30 Welcome
- 9:30 - 10:00 Introductions

Session 1: Cognitive Development

- 10:00 - 10:15 **Experiences from the Global Scales of Early Development - What can be measured across cultures and what is not working?**
Melissa Gladstone, University of Liverpool, UK
- 10:15 - 10:30 **Executive function in context: An observational approach**
Chika Ezeugwu, University of Cambridge, UK
- 10:30 - 10:45 **Brain Imaging for Global Health: Understanding neurodevelopment in rural Gambia**
Laura Katus, University of Greenwich, UK
- 10:45 - 11:00 **Studying Executive Function in South African Preschool Children: Lessons learned**
Caylee Cook, University of the Witwatersrand, South Africa
- 11:00 - 11:30 **Discussion**

Networking Opportunities: Cambridge & UK

- 11:30 - 11:40 **Young Scientists for Africa (YoSA)**
Clare Elwell, University College London, UK
- 11:40 - 11:50 **Cambridge-Africa**
Tabitha Mwangi, University of Cambridge, UK
- 11:50 - 12:00 **Cambridge Global Challenges**
Sara Serradas O'Holleran, University of Cambridge, UK

- 12:00 - 13:00 Lunch



SCHEDULE

The entire event will be held at the **Cynthia Beerbower Room**

Zoom link sent to registered email

13:00 - 13:45 Focus Groups (selected topics)

Session 2: The Role of Family and Community in Child Development

13:45 - 14:00 **Evidence for Better Lives Study (EBLS): A multi-site study of early parental influences on child development**
Claire Hughes, University of Cambridge, UK

14:00 - 14:15 **Changing Trends of Parenting and Mental Wellbeing of Children: Implications for Parenting Interventions in South West Nigeria**
Adebunmi Oyebisi Oyekola, University of Ibadan, Nigeria

14:15 - 14:30 **Unleashing Learning Potential: How do Psychological Factors Shape Student Engagement in Challenging Educational Environments? - A Comparative Study of Adolescents in Southwestern Uganda Secondary Schools**
Eunice Ndyareeba Murokore, Kyambogo University, Uganda

14:30 - 15:00 **Discussion**

Session 3: Parenting Interventions to Support Development

15:30 - 15:45 **Mazi Umntanakho: A Digital Tool for Social Emotional Development and Mental Health of Young Children**
Catherine Draper, University of the Witwatersrand, South Africa

15:45 - 16:00 **Parenting programmes to prevent violence against adolescents: Reflections on In-person, Digital and Hybrid delivery in Tanzania**
Joyce Wamoyi, National Institute for Medical Research, Tanzania

16:00 - 16:20 **Discussion**

16:20 - 17:00 Closing Statements

SPEAKER PROFILE

PROF. MELISSA GLADSTONE

Melissa Gladstone is a professor of neurodevelopmental paediatrics at the University of Liverpool and Alder Hey Children's Hospital.



She has over 20 years' experience researching child neurodevelopment in resource poor environments – particularly in Africa. Her recent research aims to understand how best to measure neurodevelopment in resource limited settings as well as to utilise this to identify the early problems that children with disabilities and developmental disorders face in order to support them. She has undertaken and is presently undertaking large field studies in a number of African settings, looking at the effect of health and social factors on early child development (malaria in pregnancy, nutrition, prematurity, HIV exposure) but is also interested to pursue the linkages between assessment of children's development and behaviour with interventions, which can be provided in low income settings. She has written over 90 publications and she holds several large grants with colleagues in Sub-Saharan Africa. She created a neurodevelopmental assessment tool, the MDAT, which is being utilised in over 25 countries in Africa for research and programmatic work – much of this linking early interventions in nutrition, WASH and early stimulation programmes with later outcomes in children. She has recently been working with the World Health Organization on creation of the Infant and Young Child Developmental Indicators (IYCD) and more recently, the Global Scales of Early Development (GSED). Her future plans include incorporating ways of better measuring childhood disability in the early years in multiple settings globally.

Conducting research in these African countries:

Malawi, Tanzania, Kenya, The Gambia, Zimbabwe

✉ melglad@liverpool.ac.uk

🐦 [@mjgladstone](https://twitter.com/mjgladstone)

🌐 [/melissa-gladstone-9a700530/](https://www.linkedin.com/in/melissa-gladstone-9a700530/)

Experiences from the Global Scales of Early Development – What can be measured across cultures and what is not working?

Melissa Gladstone, University of Liverpool, UK

The Global Scales of Early Development (GSED), an ambitious cross-national, multi-language measure of child development, is designed to facilitate comparisons of levels of early (0–3-year-old) child development across countries. The project has been undertaken by an experienced team of international researchers led by the World Health Organisation. Ultimately, the GSED will comprise two tools anchored on the same scale, firstly, a caregiver reported measure aimed at population level surveillance, and secondly, a caregiver reported tool to be used for programmatic evaluation. The initial GSED was designed using a data from over 100,000 children, on 22 tests and 2275 items. A modified Rasch model was used to jointly model data and select a subset of 807 items which showed stability across countries. Eight subject matter experts (SME) made judgements on correlation of items measuring similar behaviours across tools, what domains were being measured and finally, feasibility and appropriateness of items which was synergised alongside the quantitative data for robust item selection of items for creation of the GSED-SF (GSED short form) and GSED-LF (GSED long form) through the use of an R ShinyApp (online dashboard). Tools are being validated in 7 countries (Bangladesh, Tanzania, Pakistan, Ivory Coast, Netherlands, Brazil, China) with a final validation number of 8,700 children. Psychosocial items which were created on a separate form as they do not fit a Rasch model were assessed on a separate form – the Psychosocial Form (GSED-PS).

We have created the first data-driven tools for measuring child development both by parent report and by direct observation in children from 0-42 months across countries. This can be used to provide better monitoring and information at population and programmatic level for early child development to meet the recent SDG 4.2.1 of “all children thriving”. However, it may not be a good indicator of psychosocial development on which we need further research to understand what may work to assess children across countries at these young ages.



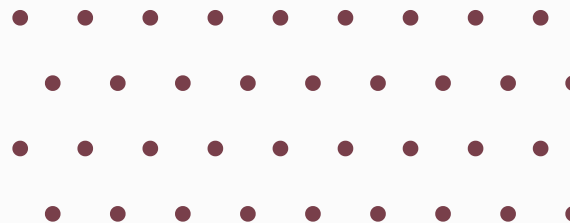
SPEAKER PROFILE

CHIKA EZEUGWU

Chika Ezeugwu is a PhD candidate in the Play Education Development and Learning (PEDAL) research centre at the University of Cambridge.



He is currently funded by the LEGO-Cambridge Scholarship and his scientific interests focus on integrating neuroscience, cognition, and child development, to improve experiences of children from low-income contexts. Chika studied applied psychology (BSc) at Adekunle Ajasin University before joining the master's programme in Psychology and Education at the University of Cambridge. Prior to Cambridge, Chika has worked on policy and strategy projects as a research scholar at Lagos Business School, Nigeria.



Conducting research in these African countries:

Nigeria

✉ cre39@cam.ac.uk

🐦 [@EzeugwuChika1](https://twitter.com/EzeugwuChika1)

🌐 [/chika-ezeugwu-03175415b/](https://www.linkedin.com/in/chika-ezeugwu-03175415b/)

Executive function in context: An observational approach

Chika Ezeugwu, University of Cambridge, UK

Executive function (EF) measures of children in Africa are heavily dependent on mostly task-based assessments normed in another culture. This challenge limits the chances of understanding how children display their EF behaviours within their host culture. To fill this vacuum, we aimed to develop an EF observation instrument that helps to capture how children display their EF behaviours in a natural classroom environment without disruption to their daily routines. To achieve this, we reviewed EF studies in Africa (54 countries and 8 territories) to identify published studies and their method of EF assessment, which are mostly task-based. We interviewed 16 teachers to understand what they considered as EF behaviours in the classroom and thereafter thematically analysed their responses using both inductive and deductive approaches. The generated codes were used as behavioural indicators that make up the items of our observational scale. Experts and teachers were consulted for face and construct validity of the measure, and after piloting the finalised items, the measure was used to assess 102 children in low-income schools in Nigeria. Although our observational data for scale reliability and validity is yet to be analysed, our preliminary findings suggest that although the universality of EF structure exists, the display of EF behaviours in the classroom is contextually determined. Theoretical and practical significance of the findings are highlighted.

SPEAKER PROFILE

DR. LAURA KATUS

Laura Katus is an Assistant Professor at the University of Greenwich and a Visiting Scholar at the Centre for Family Research, University of Cambridge, UK.

Her research aims to 1) identify early brain markers of long-term developmental outcomes, and 2) understand the impact of environmental risk on child development. Laura conducted her PhD research as part of the Brain Imaging for Global Health (BRIGHT) project, which examined early brain development in cohorts in the UK and The Gambia, West Africa. Following the completion of her PhD in 2019, she moved to the University of Cambridge to link in with the Evidence for Better Lives Study (EBLS), which examines infant cohorts across Jamaica, Ghana, South Africa, Romania, Pakistan, Sri Lanka the Philippines and Vietnam.



Conducting research in these African countries:

The Gambia, Ghana, South Africa

✉ l.katus@greenwich.ac.uk

🐦 [Laura_Katus](https://twitter.com/Laura_Katus)

🌐 [/laura-katus-12333b23b/](https://www.linkedin.com/company/laura-katus-12333b23b/)

Brain Imaging for Global Health: Understanding neurodevelopment in rural Gambia

Laura Katus, University of Greenwich, UK

Over the last decade, neuroimaging has played an increasingly big role in understanding brain development of children exposed to a range of poverty-related risk factors in low- and middle-income countries. Here, we discuss findings from the Brain Imaging for Global Health (BRIGHT) project, which longitudinally followed cohorts in the UK (N=61) and The Gambia, West Africa (N=214) from birth to 24 months of age, with an additional cross-sectional follow up at 3-5 years in The Gambia only. The protocol encompassed neuroimaging (functional near infrared spectroscopy [fNIRS] and electroencephalography [EEG]), as well as eye tracking, neurobehavioural assessments (e.g., Mullen Scales of Early Learning) and measures of environmental exposures (e.g., measures of growth, nutritional status, the caregiving environment and maternal mental health). This talk will outline findings generated from the BRIGHT project to date, including 1) early trajectories of infant neurodevelopment across the two sites, 2) longitudinal associations between early brain measures and developmental outcomes, 3) prevalence and impact of early adversity (e.g., undernutrition, poor maternal mental health) within the cohort.

SPEAKER PROFILE

DR. CAYLEE COOK

Caylee Cook is a postdoctoral researcher at the SAMRC/Wits Developmental Pathways for Health Research Unit, University of Witwatersrand, South Africa.



She obtained her PhD in Exercise Science in 2019 from the University of Cape Town. She has since transitioned to developmental psychology and over the last few years her research has aimed to identify risk and protective factors for early childhood cognition and mental well-being in the South African context. Her current projects include the development and piloting of a digital tool (WhatsApp) for preschool social-emotional development and mental well-being in low-income communities across South Africa and exploring the effects of exposure to community violence and attention to threat in preschool children. She is passionate about promoting the importance of the early years and helping all children reach their potential.



Conducting research in these African countries:

South Africa

✉ caylee.cook@wits.ac.za

🐦 [@cayls_cook](https://twitter.com/@cayls_cook)

🌐 [/drcayleejaydecook](https://www.linkedin.com/in/drcayleejaydecook)

Studying Executive Function in South African Preschool Children: Lessons learned

Caylee Cook, University of the Witwatersrand, South Africa

Caylee J Cook,^a Steven J Howard,^b Hleliwe Makaula,^a Rebecca Merkley,^c Mbulelo Mshudulu,^a Nosibusiso Tshetu,^a Gaia Scerif,^d Catherine E Draper^a

EF has garnered a lot of attention over the years due to its predictive nature for various life outcomes such as academic achievement, healthy lifestyles, substance abuse, and quality of life. However, much of the early research on EF has been conducted in Minority World countries. There has been a slow increase in studies from Majority World settings in recent years, with a focus on low-income and low-resource contexts, although representing Majority World settings remains a challenge in terms of proportionate publication and attention to meaningfully influence prevailing theories of child cognitive development.

Our research team has been using the Early Years Toolbox to study preschool EF in low-resource settings across South Africa since 2016. This research uncovered the unexpectedly strong EF skills in South African preschool children despite living in low-resource and low-income settings. Specifically, that children from the lowest income group in South Africa outperformed the Australian children in the highest income group. Further, we replicated the Minority World finding of positive associations between EF and pre-academic skills and gross motor skills. Given these findings, the studies that followed attempted to understand the contextual factors that either promote or constrain EF development in these settings. While some of the analysis is ongoing, preliminary results have deviated significantly from those found in Minority World settings finding mostly null associations between predictive factors and EF. For example, neither household income, caregiver education, nor exposure to violence have been found to influence EF in our samples. Something that does parallel findings from Minority World settings is that children who had started attending some form of early childhood care and education had significantly stronger EF.

Although significant work has been done to understand EF development in Majority World Countries like South Africa, it is clear based on our findings and those from similar settings, that our understanding of EF development, and more broadly child development, is incomplete. Many researchers from these settings are left with more questions than answers. Therefore, we propose taking a step back, to first understand how EF is contextualised and prioritised in different contexts. We need to explore different methods of assessment and consider where EF development fits within the priority list for caregivers, teachers, community leaders, and policy makers. This will help to ensure that EF research can be beneficial or at least complimentary addressing to the needs of the children, families, and communities we study. To address these and many other issues we have created the AfriBCD Community of Practice aimed at bringing together researchers and partners who are interested in neurodevelopmental research in Africa, spanning from pregnancy through adulthood. Our hope is that this will be a long-lasting space to share ideas, methods, best practices, challenges, and data.

^a SAMRC/Wits Developmental Pathways for Health Research Unit, School of Clinical Medicine, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa ; ^b Early Start and School of Education, University of Wollongong, Wollongong, NSW, Australia ; ^c Department of Cognitive Science, Carleton University, Ottawa, Canada ; ^d Department of Experimental Psychology, University of Oxford, Oxford, UK

SPEAKER PROFILE

PROF. CLAIRE HUGHES

Claire Hughes is Deputy Head for the Psychology Department, Deputy Director of the Centre for Family Research, and Director of Studies at Newnham College, at the University of Cambridge, UK.



She completed her first degree and PhD (on the topic of executive function in autism) at the University of Cambridge. After a two-year post-doc position in Paris, investigating executive functions in parents and siblings of children with autism, Claire returned to the UK and worked for 6 years at the Social, Genetic and Developmental Psychiatry Research Centre, where her research interests focused on ‘hard to manage’ preschoolers. Claire then returned to Cambridge and joined the Centre for Family Research and Newnham College. She is currently a Deputy Head for the Psychology Department (Wellbeing, Equality and Diversity), Deputy Director of the Centre for Family Research, Director of Studies at Newnham College, and Subject Convenor for the PBS Tripos. Adopting international designs, her current research interests encompass the development of children’s executive functions and theory-of-mind, periods of transition (e.g., transition to school, transition to parenthood).

Conducting research in these African countries:

South Africa, Ghana

✉ ch288@cam.ac.uk

THE ROLE OF FAMILY AND COMMUNITY IN CHILD DEVELOPMENT

13:45 - 14:00

session

2

Evidence for Better Lives Study (EBLS): A multi-site study of early parental influences on child development

Claire Hughes, University of Cambridge, UK

Claire Hughes,^a Sarah Foley,^b Laura Katus,^c Bao-Yen Luong Thanh,^d Thang Van Vo,^d Adriana Baban,^e Diana Taut,^e Madalina Ruxandra Costin,^e Bernadette Madrid,^f Asvini Fernando,^g Siham Sikander,^h Catherine Ward,ⁱ Mark Tomlinson,^j Susan Walker,^k Sara Valdebenito,^l Aja Murray,^m Manuel Eisnerⁿ

By providing an overview of the EBLS foundational design, my aim is to highlight the value of bringing together an interdisciplinary research consortium from across the globe to conduct a multi-site birth cohort study. EBLS was conceived by researchers at the Institute of Criminology in Cambridge, with the aim of expanding the geographical and cultural scope of research into family and community influences on childhood aggression and antisocial behaviour. An initial scoping study involved nine sites (Brazil, Ghana, Jamaica, Pakistan, Philippines, Romania, South Africa, Sri Lanka & Vietnam) and led to the launch of a Foundation Study in eight sites (all but Brazil), which aimed to:

1. test the feasibility of recruiting and retaining participants across all sites.
2. translate survey measures into multiple languages (2+ for most sites).
3. assess the acceptability and validity of these measures.
4. collaborate with policymakers etc to identify pathways to impact.

The Foundation EBLS was originally designed to have just two time-points (pre and postnatal), with a total of around 1200 families (approximately 150 families per site). Although very demanding, this work was a very positive experience, which gave the research consortium the energy and confidence to embrace the challenge of conducting two additional (unfunded) waves. The third wave (around age 12 months) involved seven sites and the fourth wave (around 24 months) took place during the pandemic and involved five sites. One ambitious and innovative feature of this 24-month wave was the inclusion of 3-minute speech samples, enabling the voices of participants to be heard directly. My talk will therefore include some excerpts from these speech samples, in order to stimulate discussion on the value of different approaches to exploring the cultural universality and specificity of family mechanisms of risk and resilience for young children exposed to material and psycho-social adversity.

^a Psychology Department, University of Cambridge, UK ; ^b Centre for Family Research, University of Cambridge, UK ; ^c Institute for Lifecourse Development, School of Human Sciences, University of Greenwich, UK ; ^d Hue University of Medicine and Pharmacy, Hue University, Vietnam ; ^e Department of Psychology, Babes-Bolyai University, Romania ; ^f Child Protection Unit, University of the Philippines, Philippines ; ^g University of Kelaniya, Sri Lanka ; ^h Global Health Department, Health Services Academy & Department of Primary Care and Mental Health, University of Liverpool, UK ; ⁱ Department of Psychology, University of Cape Town, South Africa ; ^j Institute for Life Course Health Research, Stellenbosch University, South Africa ; ^k Caribbean Institute for Health Research, The University of the West Indies, Jamaica ; ^l Institute of Criminology, University of Cambridge, UK ; ^m Department of Psychology, University of Edinburgh, UK ; ⁿ Institute of Criminology, University of Cambridge, UK and Jacobs Center for Productive Youth Development, University of Zurich, Switzerland

SPEAKER PROFILE

DR. ADEBUNMI OYEKOLA

Adebunmi Oyebisi Oyekola is a Senior Lecturer in the Department of Counselling and Human Development Studies, University of Ibadan, Nigeria.

She began her faculty position in the Department of Counselling and Human Development Studies at the University of Ibadan, Nigeria, in 2013. She obtained her PhD in Developmental Psychology in 2015. Her thesis focused on examining the effectiveness of Dialectical Behaviour and Cognitive Processing therapies in reducing emotional stress among sexually abused female in-school adolescents in

Ibadan metropolis. Subsequently, her research has centered on investigating the consequences of exposure to maltreatment, abuse, and neglect on children and adolescents' developmental milestones. It also includes identifying risks and protective factors with the aim of developing preventive and psychotherapeutic interventions to preserve the dignity, mental health, and well-being of vulnerable children and adolescents. Another key aspect of her research is identifying how intimate partner violence impacts parenting (intergenerational transmission of values/abuse) and how other social factors build resilience and protect against the negative effects of adverse childhood experiences, such as internalizing behaviour, aggression, and social withdrawal among children and adolescents.



Conducting research in these African countries:

Nigeria

✉ ao.oyekola@mail1.ui.edu.ng

✉ dradebunmioyekola@gmail.com

Changing Trends of Parenting and Mental Wellbeing of Children: Implications for Parenting Interventions in South West Nigeria.

Adebunmi Oyebisi Oyekola, University of Ibadan, Nigeria

Without a doubt, children in numerous developing nations confront the harsh reality of enduring challenging circumstances that jeopardize their growth and progress. In Nigeria, a significant number of children struggle with an array of adversities, including maltreatment and harmful practices perpetuated by adults entrusted with their care due to deeply ingrained traditional and cultural beliefs about child-rearing. On the flip side, the concept of positive parenting cogently recognizes that the way children are nurtured significantly impacts their developmental paths. Children who receive positive reinforcement, warmth, affection, and consistent non-violent discipline are more likely to reach their developmental potential, acquire pro-social skills, and make meaningful contributions to society. They are also more likely to pass on these skills to their own children, thus strengthening the intergenerational transmission of positive parent-child relationships and child development.

Study 1 investigated knowledge, receptivity, and barriers to positive parenting practices in the South-west of Nigeria using a mixed-method dyad design. A total of 582 male and female parents of children aged between 1 and 10 years, randomly selected from three states in South-west Nigeria, participated in the study. Additionally, 36 parents, divided into 4 focused groups, took part in the discussions. The results revealed low knowledge and receptivity to positive parenting practices. The focus groups identified five major themes as barriers to positive parenting: cultural belief systems rooted in how parents themselves were raised, disparities between parents and children leading to power imbalances, socio-economic demands and work-related stress, the loss of extended family support systems, and insecurity and risk perception in the environment. Study II examined the connections between perceptions of positive parenting practices, internalizing problems and well-being among early adolescents. Using a cross-sectional design, a sample of 450 early adolescents aged 11 to 14 years participated in the study. The results indicated that higher perception of positive parenting strategies by adolescents was associated with fewer internalizing problems and increased well-being. However, female early adolescents reported a higher perception of positive parenting strategies and greater mental well-being compared to their male counterparts.

Both studies concluded that adopting positive parenting approaches and nurturing the bond between parents and children emerges as a powerful catalyst for fostering a more nurturing and harmonious family and societal environment. This underscores the importance of culturally sensitive approaches that honor traditions and values while integrating evidence-based practices to enhance parent-child relationships and bolster mental resilience.

SPEAKER PROFILE

EUNICE NDYAREEBA MUROKORE

Eunice Ndyareeba Murokore is a PhD candidate at Kyambogo University, and an assistant lecturer of Educational Psychology at Kabale University, Uganda.



She did a bachelor of arts with education (BEAD), English Double main at Uganda Christian University, Mukon, and MEd (Psychology) at Mbarara University of Science and Technology, Uganda focusing her research on Parenting styles, self-esteem, and behavioral outcomes among female adolescents in

Uganda. She is currently pursuing a Ph.D. at Kyambogo University, Uganda, and her research project aims to examine the role of achievement goals, self-efficacy, and other factors that influence academic engagement dynamics among adolescent students in low-education resource settings in southwestern Uganda. Since 2020, Eunice has been involved in data assessment and local coordination of two big cross-cultural research projects in child development; maternal predictability- investigating maternal sensitivity and maternal predictability as potential mediators between maternal childhood trauma and infant emotional reactivity, and the origins of empathy - Investigating empathy development in the first two years of life.



Conducting research in these African countries:

Uganda

✉ emurokore@kab.ac.ug

[in](https://www.linkedin.com/in/eunice-ndyareeba-aba3b2287) /eunice-ndyareeba-aba3b2287

Unleashing Learning Potential: How do Psychological Factors Shape Student Engagement in Challenging Educational Environments? – A Comparative Study of Adolescents in Southwestern Uganda Secondary Schools

Eunice Ndyareeba Murokore, Kyambogo University, Uganda

Eunice Ndyareeba,^a Judith Biirah,^a Henry Kasawo Kibedi,^a Zanna Clay^b

Enhancing academic engagement levels among adolescents in low-education resource settings presents significant challenges, necessitating comprehensive knowledge of the contextual factors that impact learning. This research used a mixed methods approach to examine the role of self-efficacy in mediating and moderating the link between achievement goal orientation and academic engagement among 524 adolescent students. Additionally, we explored individual perspectives on the adoption of achievement goal orientation and differences in academic engagement. A regression analysis was done using PROCESS macro-Model 4 for Statistical Package for Social Scientists (SPSS) and overall self-efficacy emerged as a mediator in the relationship between achievement goals and academic engagement, without exerting a moderating role. Intriguingly, academic self-efficacy mediated and moderated the relationship between performance-approach goals and academic engagement. Qualitative insights illuminated the multifaceted influences on achievement goal adoption and academic achievement variation. Factors such as parent/guardian expectations, goal-setting training programs, mentorship, teacher-student relationships, external rewards, and employability prospects emerged as pivotal contributors to students' academic engagement levels. In light of these findings, it is recommended that educational institutions consider implementing comprehensive interventions aimed at enhancing self-efficacy, goal-setting strategies, and other aspects portrayed through qualitative narratives. Facilitating stronger teacher-student relationships and incorporating elements of intrinsic motivation, alongside aligning achievement goals with diverse career aspirations, can foster a more holistic approach to academic engagement. Moreover, parental involvement in fostering realistic goals and expectations should be encouraged. These combined efforts could contribute to a more supportive and conducive learning environment, ultimately promoting sustainable academic success among adolescent students.

^aKyambogo University, Uganda; ^bDurham University, UK

SPEAKER PROFILE

PROF. CATHERINE DRAPER

Catherine Draper is an Associate Professor in the SAMRC Developmental Pathways for Health Research Unit at the University of the Witwatersrand.



She has a background in Psychology and the social sciences, and obtained her PhD in Public Health in 2005 from the University of Cape Town. Her research interests include the development and evaluation of community-based health promotion interventions, and she is particularly interested in early childhood health and development. She led the initiative to develop South African 24-hour movement guidelines for the early years, and was a member of the World Health Organization Guideline Development Group for guidelines on physical activity, sedentary behaviour and sleep in children under 5 years of age. She is part of the leadership group of the International Study of Movement Behaviours in the Early Years (SUNRISE). Dr Draper is currently leading studies on early learning, social emotional development and mental health in young children in vulnerable settings in South Africa, and also works on the Healthy Life Trajectories Initiative (HeLTI) with young women in Soweto, Johannesburg. HeLTI aims to optimise young women's physical and mental health, intervening from preconception through to early childhood, in order to establish healthier trajectories for themselves and their children. Dr Draper is currently part of a global initiative on executive function measurement, and is part of the consultative group for the World Health Organization's Global Scale for Early Development 2.0.

Conducting research in these African countries:

South Africa

✉ catherine.draper@wits.ac.za

🐦 @DrCathD

🌐 /catherine-draper-2299b211b

PARENTING INTERVENTIONS TO SUPPORT DEVELOPMENT

15:30 - 15:45

session

3

Mazi Umntanakho: A Digital Tool for Social Emotional Development and Mental Health of Young Children

Catherine Draper, University of the Witwatersrand, South Africa

Catherine E Draper,^a Caylee J Cook,^a Elizabeth A Ankrah,^b Jesus A Beltran,^b Franceli L Cibrian,^d Jazette Johnson,^b Hanna Mofid,^c Kimberley D Lakes,^e Lucretia Williams,^b Gillian R Hayes^b

Due to the serious lack of accessible services for children with developmental challenges in vulnerable South African settings, there is a need to build capacity amongst caregivers and community-based workers to promote social emotional development and mental health of young children (3-5 years) from these settings. The aim of the project was therefore to co-design and pilot a digital tool for community-based workers that could assess the social emotional development and mental health of young children in vulnerable South African settings: the Mazi Umntanakho ('know your child') tool. This tool would provide feedback on assessment results and contextually relevant resources for caregivers of young children. Community-based organisations (CBOs) working in early childhood development in Western Cape and KwaZulu-Natal provinces have been engaged as partners to co-design and pilot the tool.

The co-design process has entailed: 1) focus groups to understand CBO priorities and context, and present initial tool ideas; 2) development of tool prototype; 3) focus groups to obtain feedback on prototype; 4) finalising of tool for piloting; 5) training of CBOs; 6) piloting of the tool; 7) pilot follow-up; and 8) evaluation. CBOs have affirmed that social emotional development and mental health of young children are important topics to address in their communities, and highlighted the lack of services for children with these challenges. They agreed that WhatsApp was the best digital platform for the tool given the resource challenges in their context, and that the tool should be available in their local languages. CBO's feedback provided valuable insights into how this tool could be integrated into the existing work of their organisation.

The Mazi Umntanakho WhatsApp tool guides a community-based worker through two sets of questions. Firstly, the child's caregiver is asked about the child's mental health, using adapted questions from the Strengths and Difficulties questionnaire. Secondly, questions from the social emotional subsection of the International Development and Early Learning Assessment are asked of the child. Feedback on the assessment results and some additional information are then provided in the chatbot, using a simple traffic light system: green for no concerns, orange for some concerns, and red for many concerns. Caregivers can then choose to receive resources on the following topics: self-awareness, emotions, social skills, difficult behaviour, and healthy habits and routines. These resources are available as a pamphlet, infographic, video, and voice note, and caregivers can choose to receive as many resources as they would like. In some settings, printed resources (pamphlets and infographics) have been preferable where smart phone access is limited.

Pilot data thus far have highlighted the need for ongoing support during implementation, even with a simple WhatsApp tool; the technical challenges experienced due to limited connectivity in remote areas; the range of responses received from caregivers and children to the assessments, feedback and resources; and the importance of addressing social emotional development and mental health of young children from vulnerable South African settings.

^aSAMRC Developmental Pathways for Health Research Unit, University of the Witwatersrand, Johannesburg, South Africa ; ^bDepartment of Informatics, University of California, Irvine, California, USA ; ^cFowler School of Engineering, Chapman University, California, USA ;

^dDepartment of Electrical Engineering and Computer Science, University of California, Irvine, California, USA ; ^ePsychiatry and Neuroscience Department, University of California Riverside, California, USA

SPEAKER PROFILE

DR. JOYCE WAMOYI

Joyce Wamoyi is a Social and Behavioural researcher at the National Institute for Medical Research, Tanzania.



For over 20 years, Dr. Wamoyi has worked on: understanding social and behavioural determinants of Adolescents and Young people's Sexual and Reproductive Health (SRH); Structural drivers of HIV risk. In her work, she has explored the dynamics of transactional sex in adolescents and young women's sexual relationships in sub-Saharan Africa and sexual harassment in schools, workplace, and public place in Tanzania. She is currently working on the evaluation of the scale up of Parenting for Lifelong Health (PLH) programme to prevent violence against children in Tanzania and the digital delivery for PLH (ParentApp) in Tanzania. She is a member of the: WHO Behavioural Insights Technical Advisory Group; and UNICEF Advisory Board for the multi-country project "Children's Experiences and Perspectives of Covid-19, and restrictions related to it".



Conducting research in these African countries:

Tanzania

✉ j.wamoyi@gmail.com

 [/joyce-wamoyi-54307331/](https://www.linkedin.com/in/joyce-wamoyi-54307331/)



PARENTING INTERVENTIONS TO SUPPORT DEVELOPMENT

15:45 - 16:00

session
3

Parenting programmes to prevent violence against adolescents: Reflections on In-person, Digital and Hybrid delivery in Tanzania

Joyce Wamoyi, National Institute for Medical Research, Tanzania

Abstract to be made available upon request

NETWORKING OPPORTUNITIES IN CAMBRIDGE
AND THE UK

11:30 - 11:40

flash
talks

Young Scientists for Africa (YoSA)

Young Scientists for Africa (YoSA) is a registered charity providing scholarships for young African scientists to attend the London International Youth Science Forum (LIYSF), focusing on individuals for whom other financial support is not available. Each year these African scholars join 500 of the best science students from across the globe for a two week summer school, learning from world-leading scientists through lectures, debates and visits. The forum provides YoSA scholars with life-changing knowledge and contacts which will empower their science careers and help address the critical shortage of scientists in Africa. YoSA is also developing a network of student science communities to help support the next generation of African scientists.

www.yosa.org.uk



YOUNG SCIENTISTS FOR AFRICA

Prof. Clare Elwell

Clare is a Professor of Medical Physics at University College London (UCL) and Vice Dean for Impact for UCL Engineering. She develops functional near infrared spectroscopy (fNIRS) to image the human brain and her research projects include studies of infant brain development, autism, acute brain injury, migraine and malaria. She currently leads the Brain Imaging for Global Health (BRIGHT) project which delivered the first brain images of infants in Africa.

Clare is Past President of the Society for Functional Near Infrared Spectroscopy and current President of the London International Youth Science Forum. She was a 2018 British Science Association Media Fellow at the Financial Times and is a Fellow of the Institute of Physics and of the RSA.



NETWORKING OPPORTUNITIES IN CAMBRIDGE
AND THE UK

11:40 - 11:50

flash
talks

Cambridge-Africa

The Cambridge-Africa Programme is a University programme which emerged as a bottom up initiative from a number of individual, mutually-beneficial, long-term, collaborations between Cambridge and African researchers. Since 2008, Cambridge-Africa promotes equitable partnerships through prioritising Sub-Saharan Africa, and:

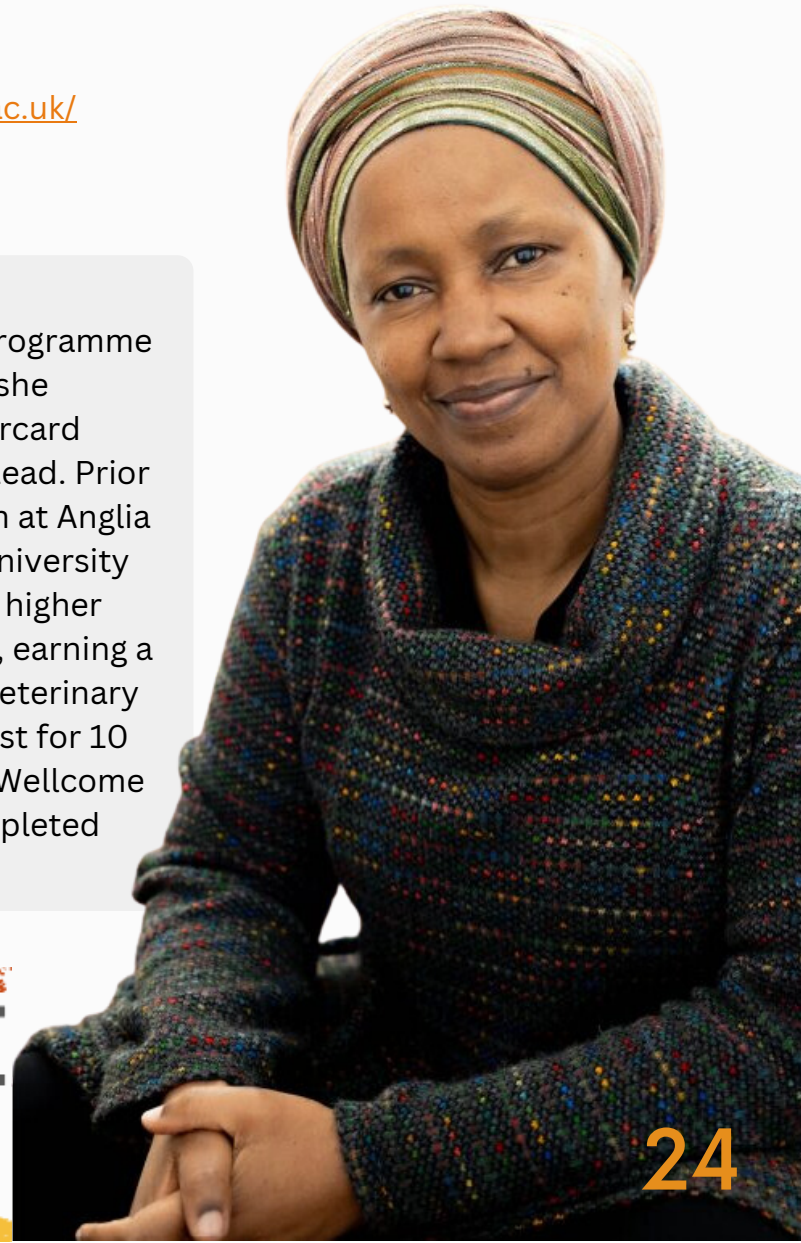
- Catalysing new, and strengthening existing collaborations, between Cambridge and African researchers and their Institutions
- Providing an enabling academic environment for African early career researchers
- Supporting training activities for institutional research support teams
- Encouraging, facilitating and informing networks of researchers dedicated to contributing to outstanding research in sub-Saharan Africa

The ethos of the programme and its partnerships are based on equity, transparency and trust. Activities are driven by needs identified by African partners in order to address African (research) priorities.

<https://www.cambridge-africa.cam.ac.uk/>

Dr. Tabitha Mwangi

Tabitha joined the Cambridge-Africa team as Programme Manager in January 2021. From October 2022, she started a one-year secondment with the Mastercard Foundation Program as the Interim Academic Lead. Prior to that she was Senior Lecturer in Public Health at Anglia Ruskin University, UK (2017-2020) and Pwani University in Kilifi, Kenya (2013-2015). Tabitha started her higher education at the University of Nairobi in Kenya, earning a Bachelor's in veterinary medicine and MSc in Veterinary Epidemiology. She worked as a research scientist for 10 years at the Kenya Medical Research Institute-Wellcome Trust Research Program in Kilifi where she completed her PhD in malaria epidemiology.



CAMBRIDGE
AFRICA

NETWORKING OPPORTUNITIES IN CAMBRIDGE
AND THE UK

11:50 - 12:00

flash
talks

Cambridge Global Challenges

Cambridge Global Challenges (CGC) is a Strategic Research Initiative (SRI) of the University of Cambridge focused on addressing the UN Sustainable Development Goals. We seek to promote collaboration between the Global South and Global North in order to drive southern-led agendas. Strategic Research Initiatives increase the impact of existing expertise within the University by bringing together interdisciplinary networks from across the Schools. They facilitate research collaborations and knowledge exchange within and without the University with the aim of addressing multidisciplinary research challenges, increasing research capacity and promoting international partnerships.

<https://www.gci.cam.ac.uk>

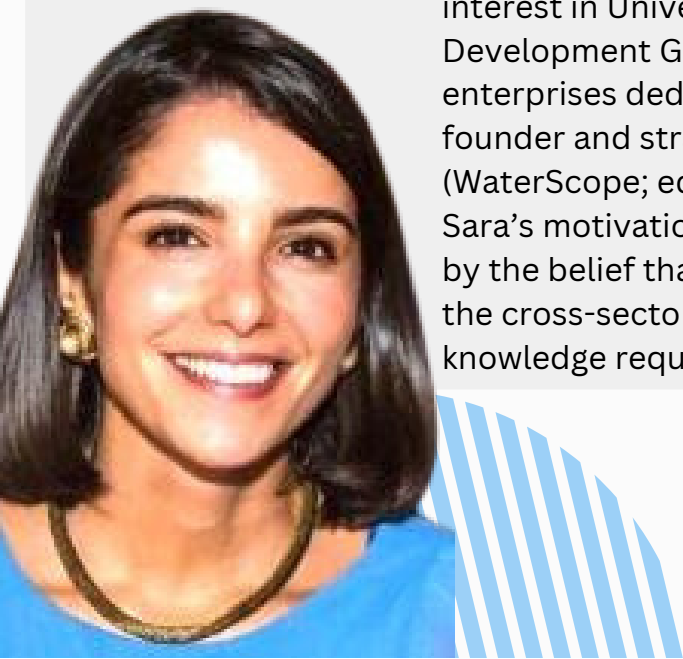


Dr. Sara Serradas O'Holleran

Sara is the Cambridge Global Challenges's founding Research Strategy Manager. She provides strategic direction to CGC and manages its South-North international partnerships, research design, fundraising and research impact.

Sara is interested in knowledge governance solutions that protect the source and the in-country societal impact of Southern innovation that is internationally disseminated and commercialized. She is particularly committed to working with African scholars and innovators on the protection of the societal impact of African climate knowledge and innovation.

Sara was raised in Mozambique and has a research background in Life Sciences (Microbiology in Portugal and Institut Pasteur & Neuroscience PhD at Cambridge). Prior to joining CGC, her interest in University-generated innovation addressing the Sustainable Development Goals in the Global South led to work at social enterprises dedicated to increasing access to education (secondGO; founder and strategy lead) and to combating water inequality (WaterScope; educational content lead and business strategy). Sara's motivation to work with Cambridge Global Challenges is driven by the belief that Universities are uniquely well positioned to convene the cross-sector expertise and to generate the evidence and knowledge required to address the Sustainable Development Goals.





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