

Neuroimaging in focus: engaging with mothers around child brain development in a South African birth cohort

Catherine J Wedderburn,^{1,2,3} Jessica E Ringshaw,^{1,2} Karen Mare,^{2,4} Akhona Krwece,⁴ Annerine Roos,^{2,4} Nadia Hoffman,⁴ Heather J Zar,^{1,5} Dan J Stein,^{2,4,6} Kirsten A Donald,^{1,2}



1. Department of Paediatrics and Child Health, Red Cross War Memorial Children's Hospital, University of Cape Town, South Africa: 3. Department of Clinical Research, London School of Hygiene & Tropical Medicine, United Kingdom. 4. Department of Psychiatry & Mental Health, University of Cape Town, South Africa: 5. SA MRC Unit on Child & Adolescent Health, University of Cape Town, South Africa: 6. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 7. South Africa: 8. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, South Africa: 9. SA MRC Unit on Risk and Resilience in Mental Disorders, Univer

INTRODUCTION

- Research in South Africa has shown a high prevalence of developmental risk in children associated with specific factors and structural brain changes.
- This project aimed to engage the community around neuroimaging and understanding child brain development through interactive workshops.

METHODS

- The Drakenstein Child Health Study (DCHS) is a South African population-based birth cohort study investigating early-life determinants of child health and development.
- A subgroup of children underwent longitudinal neuroimaging and neurodevelopmental assessments at three timepoints from 0-6 years.



• Interactive workshops were conducted with 30 DCHS participants across two days to explore the neuroimaging experience, to understand community perceptions of early development, and to discuss study findings through roundtable discussions.





KEEP CHILDREN SAFE DUCATION IS IMPORTANT

- A set of key themes important for child development were agreed upon based on community knowledge and study findings: safety; caring for the mother's physical & mental health; avoiding alcohol, smoking, & drugs in pregnancy; child health, education & nutrition; supporting & nurturing children.
- These were incorporated into community posters designed by participants (one per workshop above).



- Participant experience of the neuroimaging was
 positive. Mothers highlighted the friendly staff; clear
 scan explanation; children feeling safe, comfortable,
 & enjoying the experience; and taking a photo home.
- Processes identified as being important to the participants: safe and convenient transport with advance bookings; the value of an on-site translator; providing meals for both the mother and child.

CONCLUSIONS

- The workshops were able to improve understanding of child development and research processes.
- Through working together, community priorities for child development were identified and key messages for the wider community were developed.
- Two-way knowledge translation between the study and the community was strengthened with practical approaches to promote healthy brain development.
- This collaborative approach may be used as a model for future public engagement work.



ACKNOWLEDGEMENTS

We greatly thank the DCHS participants. Consent was given for photos.

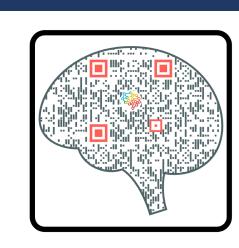
The workshops were funded by a LSHTM public engagement grant.

The DCHS study is funded by the Gates Foundation, NRF and NIH.

Additional support from the Wellcome Trust, SAMRC, CIFASD,

NIAAA, and US Brain & Behaviour Foundation.

CONTACT



catherine.wedderburn@uct.ac.za

Scan QR code to download posters

