

RESILIENCE SCALES IN A RURAL SUBSAHARAN CONTEXT

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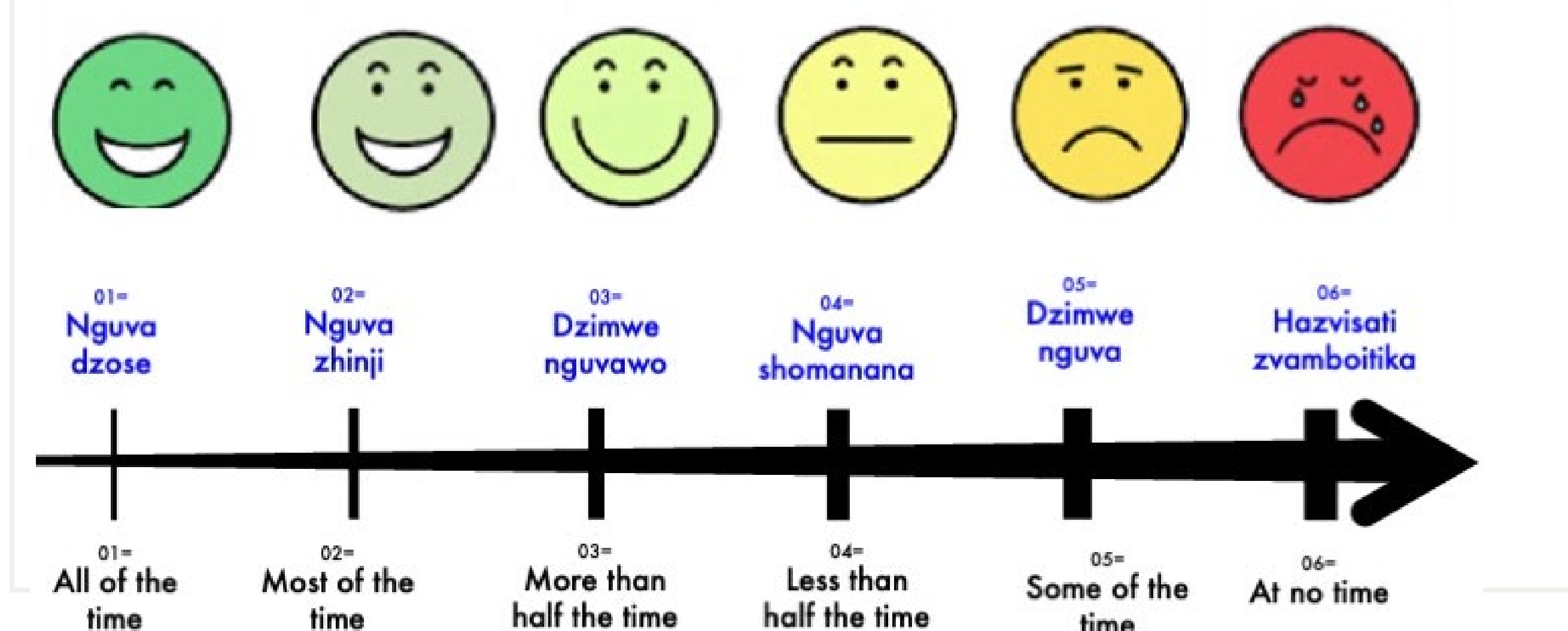
Background: There is a lack of tools to assess school-age mental health and resilience in rural, low-resource contexts¹.

Methods: Tools used to assess mental health and resilience among refugee children from Syria² were extensively adapted into Shona and Ndebele languages for use in Shurugwi, rural Zimbabwe.

Child Scales with Likert scales

Example from WHO Wellbeing scale:
"I have felt cheerful and in good spirits."

Shona: "Ndanga ndichinzwa kufara"



- Iterative adaptation was undertaken:
 - 1) Face & content validity review
 - 2) Translated/back-translated → cognitive interviewing
 - 3) Pre-piloting → repeat cycle (1→3)
 - 4) Pilot (98 children, 44 girls, 10-11 years) using ODK collect

Fig 1: Sample question from WHO Wellbeing Questionnaire with matching Likert scale.

Results:

Internal consistency (child) using generalized linear models:

- Better WHO wellbeing score → Better mental health
Depression scores (CES-DC) (graph a), Anxiety (SCARED) (graph b)



Questionnaires¹ asked to children (& caregiver)

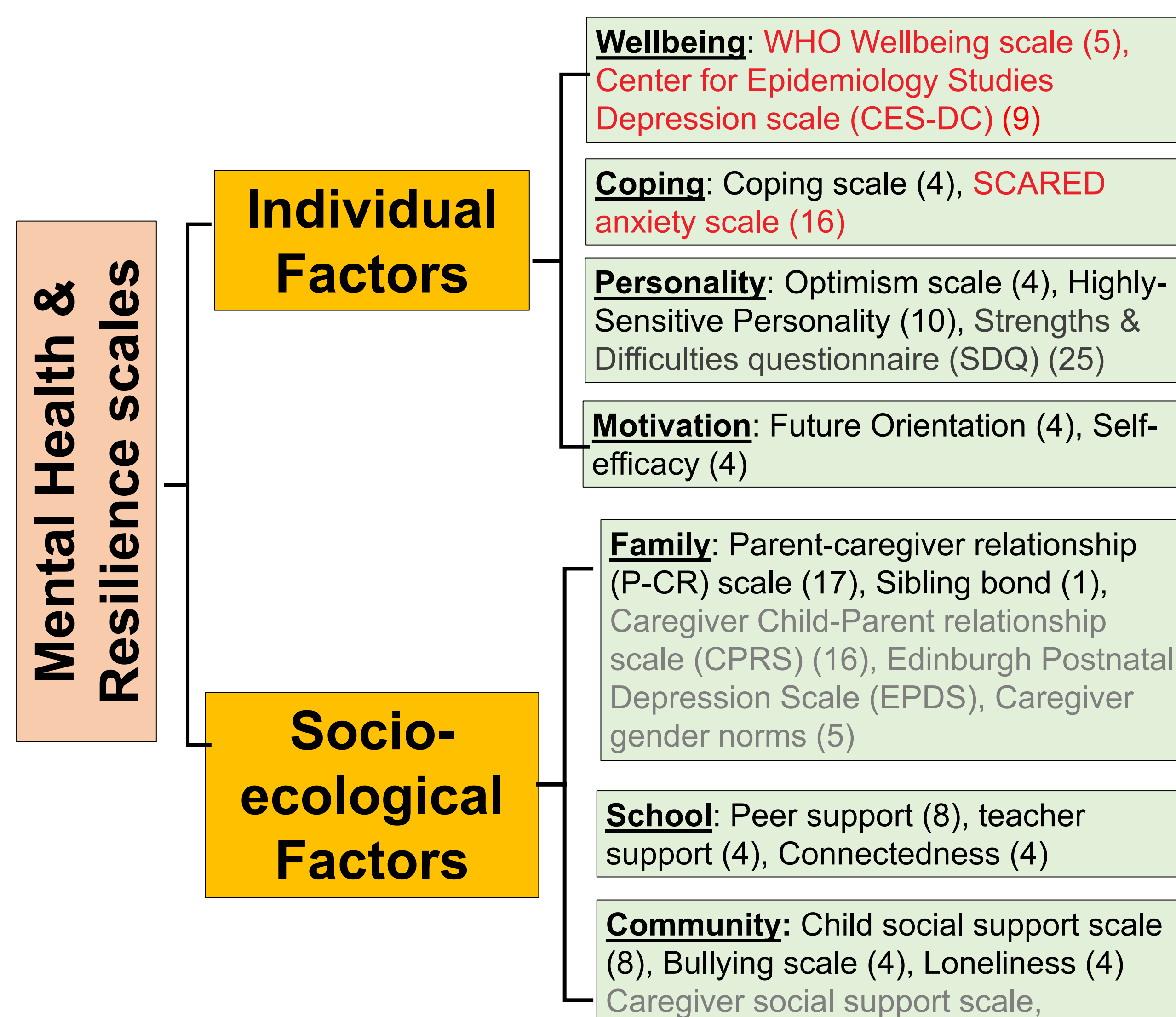
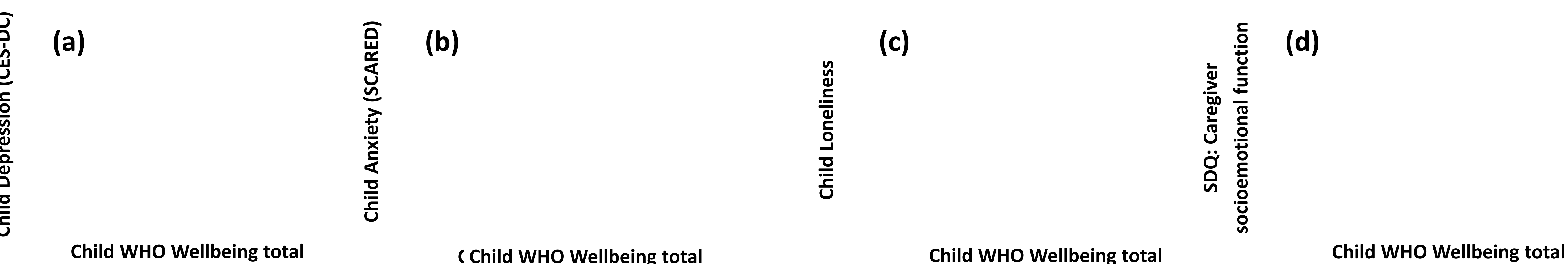


Fig 2: Child Mental Health and resilience¹ questionnaires² using child-friendly Likert scales. Mental health questions in red. Complementary questionnaire asked to caregiver (CG) in grey. () = number of Qu's. Note Caregivers were visible but could not see or hear the answers. Total time = 30 mins / child.

- Worse WHO wellbeing → lower resilience (more loneliness (graph c) worse parent-child relationship, school environment, bullying, optimism)
- External consistency (caregiver)
 - Better child wellbeing → Caregiver-reported SDQ (graph d)



Conclusion

Scales show promise for evaluating children in a wide variety of contexts:

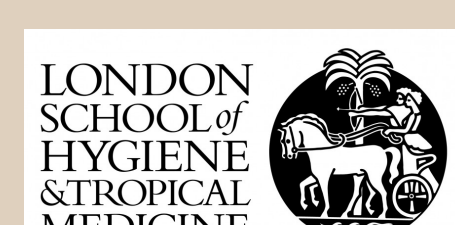
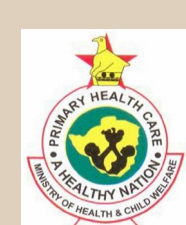
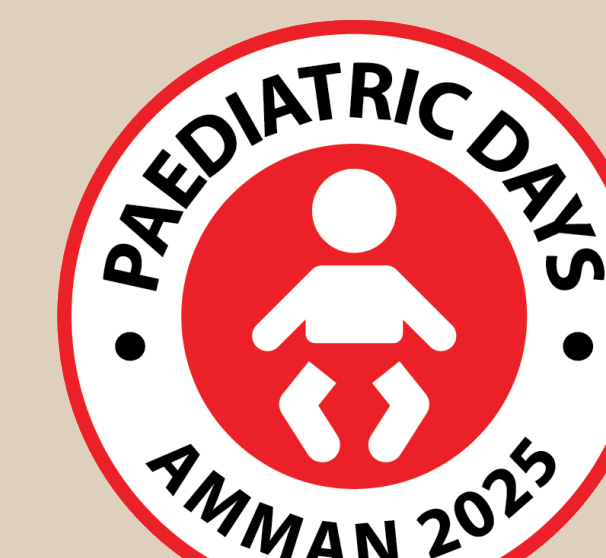
Child mental health: WHO wellbeing, CES-DC, & SCARED scales

Child resilience: parent-child relationship, loneliness, bullying, school environment.

Next steps

- Similar results for SHINE³ birth cohort (330 measured out of 1275)
- Manuscript in preparation for pilot
- Future principal component analysis for adversity & resilience¹

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References:

- ¹How are we measuring resilience in children? A systematic review. Hall et al. Mental Health & Prevention 2024
- ²Cohort profile: biological pathways of risk and resilience in Syrian refugee children (BIOPATH) McEwen, et al. Soc Psychiatr Epidemiol, 2022
- ³The Sanitation Hygiene Infant Nutrition Efficacy (SHINE) Trial: Protocol for school-age follow-up, Piper et al. Wellcome Open Access, 2023