

Supplementary Table S4: Estimated Intra-Class Correlations from Null Models for main outcomes¹

Outcome	Intra-Class Correlation Estimate
Child development outcomes	
ASQ-3 Gross motor z-score	0.037
ASQ-3 Fine Motor z- score	0.017
ASQ-3 Communication z- score	0.027
ASQ-3 Prob. Solving z- score	0.027
ASQ-3 Social Emotional z- score	0.015
MDAT Gross motor z- score	0.029
MDAT fine motor z- score	0.033
MDAT language z- score	0.040
MDAT socioemotional z- score	0.028
Father Engagement	
Father engagement in childcare ²	0.117
Child growth outcomes	
Height-for-age (HAZ)	0.050
Weight-for-age (WAZ)	0.029
Weight-for-height (WHZ)	0.033
Middle upper arm circumference (MUAC)	0.063
Violence and safety	
Harsh discipline (MICS4) ³	0.029
Victimization (female caregivers) ⁴	0.001
Perpetration (male caregivers) ⁵	0.001

ASQ-3=Agnes and Stages Questionnaire; MDAT=Malawi Developmental Assessment Tool

1: ICC estimates for Negative Binomial models were computed based on Leckie G, Browne WJ, Goldstein H, Merlo J, Austin PC. Partitioning variation in multilevel models for count data. *Psychol Methods*. 2020 Apr 20. doi: 10.1037/met0000265. Epub ahead of print. PMID: 32309962. Results should be interpreted with caution given there is no generally accepted way of estimating ICCs for count models, and this is an ongoing discussion.

2: Among households with a father (N=524)

3: MICS: UNICEF's Multiple Indicator Cluster Survey

4: Among female caregivers reporting a current intimate partner at baseline (N=523)

5: Among male caregivers reporting a current intimate partner at baseline (N=450)