Role of Home Literacy Environment and Language in the Development of Rhyme Awareness Skills in Preschool children in Lusaka Province, Zambia

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Introduction

Rhyme awareness skills

- Rhyme awareness is an understanding that words that end with the same sound (e.g. bat, rat) are pronounced in the same way.
- Rhyme awareness has been associated with other PA skills and later reading development (Bryant et al., 1990; Dunst et al., 2011; Goswami, 1999; Harper, 2011; MacLean et al., 1987)
- It is one of the earliest PA skills to develop in children. 2-year children
- They are expected to develop in children as young as three who are not yet in school (Cunningham & Stanovich, 1993). Hence literacy home environment (HLE) is key.

HLE, oral language and rhyme awareness

• Rich home literacy environment is associated with better rhyme awareness skills (Foy & Mann, 2003; Reade, 2017)

• Better language abilities are connected with better rhyme awareness (Foy & Mann, 2003).

- Poor literacy environment in most resource-contained Zambian families may hamper the development of rhyme awareness abilities (*Chansa-Kabali*, 2014, *Mwanza-Kabaghe* 2022)
 - We wondered the extent to which the HLE supports the development of rhyme awareness skills.

Methods

- Description of Sample
 - 14 public preschools,
 - 353 preschoolers (169 boys and 189 girls)
 - M_{age}=81.1 months; SD=15.7

Measures

- Home literacy environment factors (literacy activities; literacy materials)
- **SES** (home possession index)
- Language tests (Receptive, Expressive picture vocabulary test; Familiar Language)
- Rhyming awareness skills (Rhyme recognition; Rhyme production)

Results

Table 1: Descriptions statistics for the rhyme awareness tests

| | N | Mean | SD | Min | Max |
|-------------------|-----|------|-------|-----|-----|
| Rhyme Production | 351 | 2.30 | 3.097 | 0 | 15 |
| Rhyme recognition | 351 | 5.49 | 3.915 | 0 | 17 |

Home Literacy activities and rhyme awareness

Table 2: Summary of Estimates of Fixed Effects on rhyme awareness

| | | | | | | 95% CI | |
|---------------------------|-------|------|--------|-------|------|--------|-------|
| Parameter | Est | SE | df | t | Sig. | UP | LB |
| Intercept | 1.479 | .284 | 61.157 | 5.201 | .000 | .910 | 2.048 |
| Reading activities | .448 | .205 | 58.010 | 2.188 | .033 | .038 | .858 |
| Language total score | .140 | .049 | 62.766 | 2.869 | .006 | .043 | .238 |
| No. of books at home | .041 | .156 | 54.316 | .261 | .795 | 271 | .3521 |
| No. of times parents read | .051 | .037 | 59.133 | 1.383 | .172 | 023 | .1243 |

a. Dependent Variable: Rhyme awareness

Conclusions

- Aspects of the home literacy environment were associated with rhyme awareness skills of preschool children from resource-constrained homes (Foy & Mann, 2003)
 - Literacy activities were connected to rhyme awareness skills (Reade, 2017)
 - Literacy materials did not predict rhyme awareness skills (Castro et al. (2008)

• Language skills predicted rhyme awareness skills of preschool children from resource-constrained homes (Foy & Mann, 2003; et al., 2011).

Implication and recommendations

- Rhyme awareness skills predict future reading and are associated with advanced PA skills.
- They are among the earliest PA skills to develop. Children need to develop these skills way before grade one.
- Exposing children to literacy activities that support rhyme awareness skills at home before beginning grade one is crucial.
- Children with better oral language skills display better rhyme awareness than their counterparts with poor language skills. Hence oral language development should be supported at home.

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