



The association between the housing structure and continued breastfeeding in two Southern African Countries

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Almost half of the deaths in children under-5 years are linked to malnutrition in low- and middle-income countries(LMICs)⁽¹⁾. The WHO recommends continued breastfeeding for up to two years as a key strategy against malnutrition, yet only 45% of children are breastfed for two years⁽²⁾. There are many factors associated with shorter breastfeeding duration, housing structure has been associated with shorter breastfeeding duration in Kenya⁽³⁾, a LMIC. We studied the association between housing structure and breastfeeding duration in two Southern African countries.

Data were extracted, with permission, from the Demographic and Health Survey(DHS), a program which provides nutrition surveillance in 90+ countries. South Africa(SA) and Zimbabwe's 1998 and 2016 data were analysed using R (R-core team 2022) & SPSS-VS28 (IBM 2021). Individual and household recode files were merged using the cluster and household numbers. A complex sample plan was constructed using the sample strata and stratification variables, and data were weighted. Duration of breastfeeding (months) was the outcome variable and the number of rooms used for sleeping, place of dwelling, whether the household has a refrigerator and early initiation of breastfeeding were used as predictor variables. Data were tested for normality. As data were not normally distributed, a Poisson generalised linear model was fitted.

Data for 2397 households were available for SA and 1756 households in Zimbabwe. The number of households with one room for sleeping has increased in SA but decreased in Zimbabwe between 1998 and 2016. These changes have been accompanied by a decrease in median (months) breastfeeding duration in both SA (15 to 12) and Zimbabwe (18 to 12.5). SA has experienced an increase in early breastfeeding initiation (44% to 66%) in contrast, Zimbabwe's early breastfeeding initiation has decreased (66% to 63%). Urban residency ($R=-0.140$, $p < 0.01$) and an increasing number of rooms for sleeping ($R=-0.025$, $p < 0.001$) was associated with a decreased duration of any breastfeeding in SA, having a refrigerator ($R = 0.082$, $p < 0.01$) was associated with an increased duration but initiation of breastfeeding within 1 hour of birth was not associated. Urban residence ($R=-0.123$, $p < 0.01$) and an increasing number of rooms used for sleeping ($R=-0.033$, $p < 0.01$) were associated with decreased duration of any breastfeeding in Zimbabwe but the timing of initiation of breastfeeding or having a refrigerator were not associated.

Increasing one-room houses were associated with higher breastfeeding cessation in the current study, in line with⁽³⁾ who found that one-room multi-purpose houses forced mothers to cease breastfeeding early. Crowding seems to be detrimental to breastfeeding maintenance in LMICs, opposite to developed nations⁽⁴⁾. Built environment influences breastfeeding duration in LMICs hence intervention should consider this. The context in which the size of the dwelling place sits is crucial to correctly infer the drivers for change in breastfeeding duration.

References

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