Associations Between Delivery Location with Early Breastfeeding Initiation and Support in Three West African Countries

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BACKGROUND

- Globally, 99% of neonatal deaths occur in low- and middle-income countries with the highest rates in Sub-Saharan Africa and South Asia.[1]

- The neonatal period - the first 28 days of life - is the most critical period for child survival. [2]

- In 2017, 2.5 million deaths occurred during the neonatal period.[2]

- Newborn care practices such as early initiation of breastfeeding (EIBF), breastfeeding support and umbilical cord examination play a key role in these deaths, especially in low-income countries.[3]

- There is a dearth of information on the coverage of newborn care practices in West Africa.

PURPOSE

This study aims to examine newborn care practices in the West African context and explore its association with delivery location.

METHODS

Data: Data were from the Demographic and Health Surveys (DHS). Recent surveys that included information on newborn care practices were available for three countries: Benin (2017, n=7239); Nigeria (2013, n=16504); and Senegal (2017, n=6526).

Variables

- Dependent: EIBF, breastfeeding support, and umbilical cord examination

- Independent: Delivery location (home, public hospitals, public clinics or health centers, private hospitals and clinics)

- Covariates: women's social and demographic characteristics such as maternal age, maternal education, household income, marital status, residence, and ethnicity

Statistical Analysis

- Stata version 15 was used for analysis

- Descriptive: weighted percentages

- Multivariate logistic regression: we used one model per outcome

- The svy command was used to account for the complex sample design of data

- All statistical tests were two-sided

- P≤ 0.05 was considered statistically significant

RESULTS

Figure 1
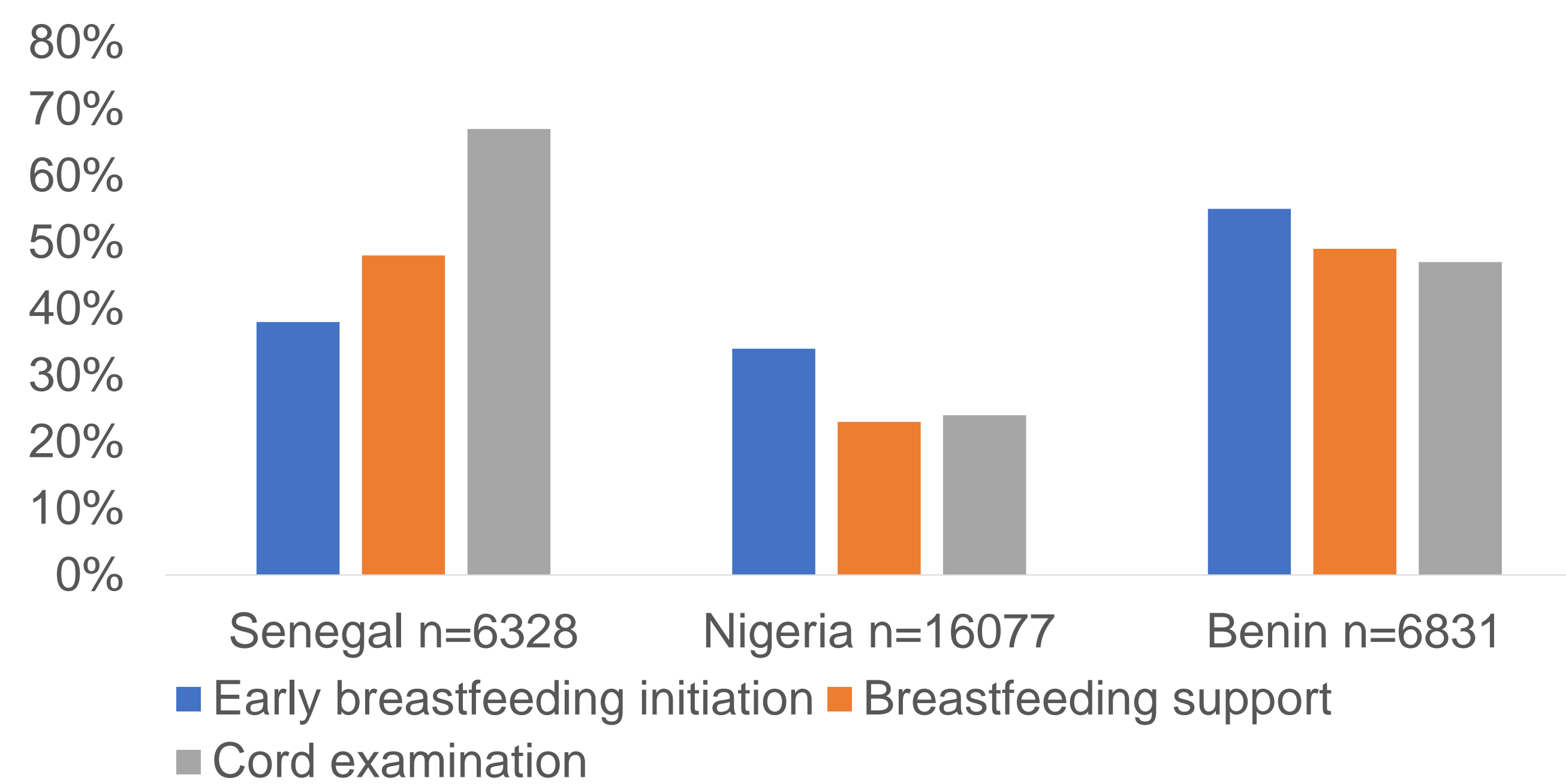

Newborn care practices by country

Table 1: Adjusted odds ratios (OR) and 95% confidence intervals (CI) of early newborn care in Nigeria, Demographic and Health Survey, 2013

Variable	Early breastfeeding initiation OR (95% CI)	Breastfeeding support OR (95% CI)	Cord examination OR (95% CI)
Birth location Home (ref)			
Public hospital	1.61 (1.28-2.03)*	1.41 (1.09-1.82) *	1.43 (1.12-1.82) *
Public clinics	1.31 (1.05-1.65)*	1.12 (0.86-1.47)	1.11 (0.86-1.42)
Private facility	1.08 (0.85-1.38)	1.23 (0.95-1.60)	1.27 (0.99-1.63)

*Statistically significant results (P≤ 0.05). Ref – reference. Model adjusted for Maternal age, maternal education, household income, marital status, residence, and ethnicity

Table 2: Adjusted odds ratios (OR) and 95% confidence intervals (CI) of early newborn care in Senegal, Demographic and Health Survey, 2017

Variable	Early breastfeeding initiation OR (95% CI)	Breastfeeding support OR (95% CI)	Cord examination OR (95% CI)
Birth location Home (ref)			
Public hospital	1.94 (1.16-3.25) *	1.17 (0.76-1.80)	1.30 (0.82-2.05)
Public clinics	2.28 (1.44-3.59) *	1.32 (0.90-1.95)	1.49 (1.05-2.13) *
Private facility	1.33 (0.71-2.51)	1.62 (0.89-2.96)	2.09 (1.29-3.40) *

*Statistically significant results (P≤ 0.05). Ref – reference. Model adjusted for Maternal age, maternal education, household income, marital status, residence, and ethnicity

RESULTS

Table 3: Adjusted odds ratios (OR) and 95% confidence intervals (CI) of early newborn care in Benin, Demographic and Health Survey, 2017

Variable	Early breastfeeding initiation OR (95% CI)	Breastfeeding support OR (95% CI)	Cord examination OR (95% CI)
Birth Location Home (ref)			
Public hospital	0.82 (0.59-1.13)	1.44 (0.98-2.13)	1.26 (0.85-1.86)
Public clinic	0.97 (0.74-1.28)	2.06 (1.46-2.91)*	1.99 (1.41-2.79)*
Private facility	0.95 (0.70-1.30)	1.97 (1.35-2.88)*	1.97 (1.36-2.83)*

*Statistically significant results (P≤ 0.05). Ref – reference. Model adjusted for Maternal age, maternal education, household income, marital status, residence, and ethnicity

CONCLUSIONS

- Our study draws attention to suboptimal levels of newborn care practices in all three West African countries.

- Delivery location is associated with newborn care practices

- Interventions are expedient to improve newborn care practices across the sub-region

- Newborn care practices should be adequately addressed not just because of the strong correlation with neonatal and under-five deaths, but also, because the interventions addressing neonatal mortality are inherently linked to those addressing maternal and under-five death.[4]

- As data becomes available, more research is needed to explore the coverage of newborn care practices in other countries in the sub-region

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