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Anemia, nutritional status, and breastfeeding practices among mother-child pairs in vulnerable areas of Greater Beirut, Lebanon

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Abstract

Introduction: Micronutrient deficiencies and malnutrition during the first 1000 days of life can have lifelong effects on the physical and cognitive development of the child. Lebanon, host of the world's highest per capita number of refugees, is becoming increasingly vulnerable to micronutrient deficiencies and facing a protracted crisis. Up-to-date, there is a lack of studies assessing hidden hunger, such as anemia and its determinants, particularly in a fragile setting.

Material and methods: A cross-sectional survey was applied to 539 mother-child pairs of Syrian refugees and Lebanese host communities attending primary health care centers in 6 vulnerable areas of Greater Beirut, Lebanon between July and September 2018. The interview was completed by 476 pairs consisting of women of reproductive age (15–49 years) and children (0–59 months). The questionnaire gathered data on socio-economic characteristics, infant and young child feeding practices, and nutritional status. Hemoglobin concentrations were measured using the HemoCue Hb301 + analyzer. Data analysis used descriptive statistics, t-test, and chi-square test.

Results: Overall, 45.4% of the women were lactating (LW), 16.6% pregnant (PW), and 38.0% non-pregnant non-lactating (NP/NL). The vast majority of the infants were ever breastfed (96.6%) and received colostrum (90.5%); however, more than half of the infants were offered pre-lacteal feedings (55.0%) and only one third were breastfed within the first hour after birth (35.2%). The rate of exclusive breastfeeding under six months was 22.2%. About half of the children were predominantly breastfed under six months (50.4%). Long-term breastfeeding up to the age of 1 year (47.2%), or even 2 years (19.2%), was practiced in line with the WHO recommendations. Anemia rates among mothers were significantly higher among NP/NL compared to PW and LW (26.1%, 17.7%, 18.8%, respectively, $p < 0.05$). Whereas, anemia rates among children were significantly higher in LW compared to NP/NL and PW (43.0%, 30.0%, 21.5%, respectively, $p < 0.01$). Among breastfed children, maternal anemia was significantly higher among anemic children (25.8%) compared to non-anemic children (14.0%, $p < 0.05$). Mild anemia of children under six months was significantly higher among overweight and obese mothers compared to mothers with a healthy BMI (67.7% vs 32.3%, $p < 0.05$).

Conclusions: Despite an almost universal initiation of breastfeeding, early onset and exclusive breastfeeding under six months were low. Higher anemia rates were found among breastfed children and this was significantly associated to the maternal nutritional- and anemia status. Further analysis is required to examine the determinants of anemia and breastfeeding in this setting.

Conflict of Interest

There is no conflict of interest.