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EDITORIAL

Q1 Ensuring breastfeeding equity has promise to help equalize early childhood development

1 Early childhood development (ECD) is the cornerstone of our
2 collective future – with lifelong impacts for health, wellbe-
3 ing, educational attainment and economic participation.¹
4 This is why ECD is a major global priority, and its embedded
5 throughout the Sustainable Development Goals.² To help
6 children achieve their full potential, ECD must be supported
7 by multi-sectorial, structural measures that address poverty,
8 malnutrition, environmental harms, and inequities in access
9 to healthcare and education, among others.^{1,3} Today, how-
10 ever, globally we face inequities that continue to limit child-
11 ren's development and disproportionately affect children
12 living in low- and middle-income countries (LMICs).⁴ Breast-
13 feeding has powerful, life-long effects on child health and
14 development.⁵ In their innovative new study, Ford et al.⁶
15 examine the role of exclusive breastfeeding as a potential
16 moderator of developmental outcomes in a cohort of chil-
17 dren drawn from Southeast Brazil whose mothers had
18 unequal patterns of educational attainment. ECD was mea-
19 sured at 12 months via an in-person assessment using the
20 Bayley-III validated scales. Since maternal education is a
21 well-established determinant of ECD,⁷ the authors hypothe-
22 sized that exclusive breastfeeding would have a protective
23 effect for those children whose mothers have lower educa-
24 tional attainment.

25 In concert with previous findings, the study found that
26 children of mothers with higher educational attainment
27 had more optimal early childhood development, as
28 reflected by cognitive, language and a composite Bayley
29 Global Scores. Similarly, in line with prior literature, EBF
30 was also associated with higher cognitive, language, and
31 Bayley Global Scores. Notably, when the authors carried
32 out a moderation analysis, they found that children of
33 those with fewer years of schooling (under 10 years and
34 between 10 and 12 years) but who were EBF attained
35 higher cognitive and global scores than those who were
36 not EBF. A sensitivity analysis further found a medium
37 effect size for the cognitive scores and a large effect size
38 for the global scores among those with the fewest years
39 of schooling (under 10 years).

These are important findings because they show that EBF
has a protective impact for children whose mothers face
educational disadvantages. This reinforces the importance
of breastfeeding for developmental outcomes and for ensur-
ing positive outcomes across the life course, especially for
children who may face early disadvantages. EBF confers
nutritional advantages as well as opportunities for mothers
and infants to interact and facilitates responsive, nurturing
care that leads to healthy development.⁵ Breastmilk is a living
substance that exists within the context of the dynamic
feedback loops of the breastfeeding relationship.⁵ Importantly,
breastfeeding is a complex package of evolutionary
adaptations that encompasses all of these biopsychosocial
elements and many more.⁵ The study ultimately reinforces
that breastfeeding is a matter of ensuring intergenerational
health equity and scaling up support for it should be of cen-
tral concern for governments.

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The 2023 Lancet Breastfeeding Series documented that
while most women want to breastfeed, they are unable to
do so due to numerous structural and social barriers.⁵ Key
among these are practices in the health system that fail to
adequately support breastfeeding, workplaces that do not
provide adequate leave and supportive environments for
breastfeeding, and aggressive marketing tactics by the for-
mula industry that undermine breastfeeding by misleading
caregivers, target health professionals and shape the policy
environment.⁵ Together, these barriers make it difficult to
make informed decisions about infant feeding, initiate
breastfeeding in a timely manner after birth, sustain exclu-
sive breastfeeding for 6 months and to continue it with com-
plementary foods for 2 years as recommended by the World
Health Organization (WHO). Substantial positive changes
have been achieved in Brazil over the last 20+ years in early
initiation of breastfeeding, EBF at six months, and continued
breastfeeding at 1 and 2 years.⁸ Yet, breastfeeding out-
comes still fall considerably short of 2030 targets. Indeed,
Brazil's national EBF rate in 2019 was 45.8%.⁸ Although the
Southeast region of Brazil from where this cohort hails had
higher EBF rates in 2019 at 49.1%, it would still need to

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79 significantly increase these rates to meet 2030 goals of
80 70%.⁸ In this cohort, which was born in 2022 and impacted
81 by the COVID-19 pandemic, the authors note that EBF rates
82 were lower at 37.92% than the previously collected national
83 and regional averages.

84 The authors note that a driver of these lower EBF rates
85 may be economic pressures compounded by the pandemic,
86 which forced those especially from lower socioeconomic
87 groups to enter work environments that were less accommod-
88 ating for breastfeeding.⁹ This highlights the importance of
89 structural support in the workplace for breastfeeding, par-
90 ticularly for those working in the informal sector and low-
91 wage jobs.⁵ Greater educational attainment may mean bet-
92 ter economic opportunities and more flexibility to find a
93 workplace that is supportive of breastfeeding.¹⁰ Although
94 we do not have data on the work environments of the partic-
95 ipants, those with lower educational attainment had lower
96 EBF rates (28.6% for mothers with < 10 yrs, 36.5% for those
97 10–12 yrs and 43.5% for those with >12 years of education,
98 respectively). Moreover, while women in Brazil have made
99 significant progress in educational attainment, their earn-
100 ings are still significantly lower across all levels.¹¹ The Equal
101 Pay Law enacted in 2023 to address the gender wage gap
102 may help to address these inequities.¹²

103 The health system is another major driver of these lower
104 EBF rates.⁵ The authors mention the importance of the
105 implementation BFHI in Brazil. A key challenge has been the
106 stagnating number of BFHI hospitals, and uneven implemen-
107 tation of the 10 steps that are part of the BFHI.¹³ Moreover,
108 breastfeeding supportive hospital practices and direct sup-
109 port services were frequently disrupted during the COVID-19
110 pandemic,^{14,15} which may have also had an influence for this
111 cohort. An area of further study would be to examine ECD in
112 relation to the trajectory of breastfeeding experiences and
113 early breastfeeding outcomes, taking into account BFHI
114 practices and COVID-19 policies, and the socioeconomic status
115 and educational attainment of mothers.

116 Although Brazil has strong protections for breastfeeding,
117 and has endorsed the International Code of Marketing of
118 Breast-Milk Substitutes (the Code), it has also witnessed sig-
119 nificant rise in commercial milk formula consumption in the
120 past two decades.¹⁶ This is due to persistent corporate polit-
121 ical activities and aggressive marketing efforts that target
122 families, health professionals and their organizations, and
123 government policymakers.¹⁶ These tactics are pervasive
124 globally and constitute the commercial milk formula play-
125 book that is deployed to generate profits at a high cost for
126 public health and health equity.¹⁷ Another avenue for fur-
127 ther investigation is the exposure and impact of these mar-
128 keting practices by educational status with downstream
129 impacts for ECD.

130 For most major drivers of EBF inequities are well docu-
131 mented along the lines of maternal socioeconomic status,
132 and educational attainment is a key component of SES. So,
133 while EBF can help buffer the relationship of educational
134 attainment and ECD, the ability to EBF for 6 months may
135 itself be constrained by these structural barriers. In agree-
136 ment with the authors, longitudinal studies will be needed
137 to untangle these complex relationships with confounders
138 and to determine causality. Further governmental invest-
139 ment and multi-sectorial collaboration are necessary to help

remove these structural barriers to create enabling environ- 140
ments for breastfeeding that are equitable across the social 141
spectrum.⁵ Women should have the opportunity to fully par- 142
ticipate in education, earn equitable pay, and be supported 143
in their breastfeeding journeys in the health system, work- 144
place, and beyond—which in turn impacts their children’s 145
development, health and wellbeing. Together, these findings 146
reinforce that governmental support for gender equity and 147
breastfeeding matters for mothers and their children—and 148
ultimately all families and communities across generations. 149

Conflicts of interest

The authors declare no conflicts of interest.

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