Title

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Journal

Obstetrics and Gynecology, 136(6)

ISSN

1099-3630

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Publication Date

2020-12-01

DOI

10.1097/aog.0000000000004162

Peer reviewed

HHS Public Access

Author manuscript

Obstet Gynecol. Author manuscript; available in PMC 2021 December 01.

Published in final edited form as:

Obstet Gynecol. 2020 December ; 136(6): 1154–1156. doi:10.1097/AOG.0000000000004162.

Awareness that Breastfeeding Reduces Breast Cancer Risk: 2015–2017 National Survey of Family Growth

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Precis

Only 38.5% of U.S. women are aware that breastfeeding is associated with reduced incidence of breast cancer, and efforts are needed to educate pregnant women of the maternal health benefits breastfeeding provides.

Introduction:

Breast cancer affects one in eight women in the United States (US).[1] Multiple studies have confirmed that breastfeeding is associated with reduced breast cancer risk, morbidity, and mortality;[2] mothers who breastfed ≥12 months have 26% less lifetime risk of breast cancer.[2] However, only 36% of US mothers breastfeed as recommended.[3,4] As intentions to breastfeed and duration of breastfeeding are shaped by understanding of the benefits of

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Financial Disclosure
Laura R Kair disclosed that money was paid to her institution from the Academic Pediatric Association (travel funds and reimbursement for teaching at the Research Scholars Program annual meeting), and from the Children's Miracle Network (research grant). She also disclosed the following: Human Milk Banking Association of North America (paid travel expenses to speak), University of Iowa (Adjunct faculty appointment, not related to this work, ongoing, unpaid), Jones & Bartlett (paid $200 for co-authoring 2 chapters in Breastfeeding & Human Lactation text book, past), AAP/US Breastfeeding Committee Continuity of Care Constellation member (no payments, volunteer, ongoing), currently running for Academy of Breastfeeding Medicine Board of Directors (volunteer, unpaid, current), co-investigator on grants from NIH and HRSA/MCHB in-kind (unpaid, ongoing). The other authors did not report any potential conflicts of interest.

Each author has confirmed compliance with the journal's requirements for authorship.

Presented as a virtual poster at the 2020 Society for General Internal Medicine annual meeting (May 6–9, 2020) and in virtual poster presentation at the 2020 Academy of Breastfeeding Medicine meeting (November 5–7, 2020).

breastfeeding,[5] we estimated the prevalence of awareness that breastfeeding reduces breast cancer risk among US women.

Methods:

We analyzed nationally representative data collected from 5554 women aged 15–49 who participated in the 2015–2017 National Survey for Family Growth (NSFG). This multi-stage survey has a response rate of 69%.[6] We analyzed responses to: "Do you think that breastfeeding decreases a woman's chances of getting breast cancer a lot, a little, or not at all, no opinion, or don't know?" assuming that those responding "don't know" were unaware that breastfeeding provides any protection against breast cancer. Multivariable logistic regression was used to examine the associations between awareness that breastfeeding reduces breast cancer risk (a lot or a little compared with all other responses) and participant age, self-identified race[7], ethnicity[7], nativity[8], parity[9], prior breastfeeding experience and duration of breastfeeding[9], mammogram receipt[10], personal or family history of breast cancer[10], alcohol[11] and smoking.[12] Among women who answered that breastfeeding reduces breast cancer risk, we examined the proportions reporting breastfeeding provides "a lot" or "a little" protection. Sample weights, stratum, and cluster variables from the NSFG were included to reflect the complex design, selection probability and nonresponse propensity adjustments, poststratification factors, and weight trimming.[6] SAS software version 9.04 was used for all analyses.

Results:

Only 38.5% of US women (Table 1) were aware that breastfeeding is associated with a reduction in breast cancer risk. Foreign-born women were more aware of this protection than US-born women (Appendix 1, available online at http://links.lww.com/AOG/C98). Breastfeeding duration was associated, in a dose-dependent fashion, with awareness that breastfeeding is associated with a reduction in breast cancer risk; awareness was highest among those who breastfed >1 year (aOR=5.29, 95% CI 3.51 – 7.99). Neither receipt of a mammogram, family nor personal history of breast cancer was associated with awareness. Awareness was lowest among nulliparous women (aOR=0.49, 95% CI 0.36–0.67), those with no more than a high school education (aOR=0.65, 95% CI 0.54–0.78), and US-born Hispanic women (aOR=0.69, 95% CI 0.53–0.89). Among women aware of breastfeeding associated with a reduction in breast cancer risk, 44.4% reported breastfeeding provides "a lot" of protection. Foreign-born women and women who breastfed for more than a year were more likely to believe breastfeeding offers "a lot" of benefit. Younger and nulliparous women more frequently believed breastfeeding offers "a little" protection.

Discussion:

The majority of US women remain unaware that breastfeeding is associated with decreased breast cancer risk. Prior studies have indicated that 56% of mothers were aware that breastfeeding reduces breast cancer risk,[13] and 47% of mammogram recipients identified breastfeeding as important in breast cancer prevention.[14]

Public health initiatives must consider the complex roots of disparities in breastfeeding. We recognize that perceptions of “a lot” versus “a little” risk reduction are subjective and that this study is limited by a lack of data on whether respondents were breastfed as infants. Nonetheless, clinicians can play a key role in educating families about the maternal and child health benefits of breastfeeding,[15] and support decisions to breastfeed.[13] In a prior study, just five minutes of counseling on the maternal health benefits of breastfeeding significantly strengthened women’s intentions to breastfeed.[5] When providing preconception counseling and lactation support, it is vital that clinicians inform patients of the dose-dependent breast cancer risk reduction associated with breastfeeding.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

Funding Disclosures

Drs. Abrahão and Hoyt-Austin’s work is supported by the Quality, Safety, and Comparative Effectiveness Research Training in Primary Care (QSCERT-PC) Program funded by HRSA T32HP30037. Drs. Hoyt-Austin and Kair’s work is also supported by the National Center for Advancing Translational Sciences, National Institutes of Health, through grant number UL1 TR001860. Dr. Kair’s effort was also supported by a Building Interdisciplinary Research Careers in Women’s Health award (K12 HD051958) funded by the National Institute of Child Health and Human Development (NICHD), Office of Research on Women’s Health, Office of Dietary Supplements, and the National Institute of Aging.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

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Table 1:

Awareness that breastfeeding reduces breast cancer risk, by sociodemographic and reproductive characteristics of participating women aged 15–49 years, National Survey of Family Growth (NSFG) 2015–2017, n=5554

NSFG Characteristics	n (% of total)	n (% aware)	Crude OR (95% CI)	Adjusted* OR
All Participants	5554	2136 (38.5)		
Nativity and Race/Ethnicity				
US born				
Black, non-Hispanic	1157 (20.8)	394/1157 (34.1)	0.78 (0.65 – 0.95)	0.89 (0.67 – 1.14)
White, non-Hispanic	2463 (44.3)	953/2463 (38.7)	1 [reference]	1 [reference]
Hispanic	752 (13.5)	245/752 (32.6)	0.67 (0.53 – 0.85)	0.69 (0.53 – 0.89)**
Other†, non-Hispanic or multiple race	352 (6.3)	124/352 (35.2)	0.88 (0.66 – 1.17)	0.88 (0.65 – 1.21)
Foreign born				
Black, non-Hispanic	88 (1.6)	40/88 (45.5)	2.80 (1.26 – 6.2)	2.61 (1.29 – 5.30)**
White, non-Hispanic	98 (1.8)	44/98 (44.9)	0.87 (0.49 – 1.55)	0.73 (0.41 – 1.3)
Hispanic	466 (8.4)	255/466 (54.7)	1.96 (1.49 – 2.57)	1.76 (1.29 – 2.40)**
Other, non-Hispanic or multiple race	178 (3.2)	81/178 (45.5)	1.13 (0.64 – 1.98)	1.07 (0.58 – 2.00)
Education				
High school degree or less	2567 (46.2)	854/2567 (33.3)	0.58 (0.49 – 0.67)	0.65 (0.54 – 0.78)**
Some college	1534 (27.6)	614/1534 (40.0)	0.82 (0.68 – 0.99)	0.91 (0.75 – 1.09)
College graduate or higher	1453 (26.2)	668/1453 (46.0)	1 [reference]	1 [reference]
Parity				
Nulliparous	2404 (43.3)	696/2404 (29)	0.47 (0.4 – 0.55)	0.49 (0.36 – 0.67)**
≥1 live birth	3150 (56.7)	1440/3150 (45.7)	1 [reference]	1 [reference]
Breastfeeding Experience				
Never breastfed	638 (11.5)	182/638 (28.5)	1 [reference]	1 [reference]
≤ 4 weeks	241 (4.3)	91/241 (37.8)	1.28 (0.83 – 1.98)	1.11 (0.72 – 1.72)
5 – 26 weeks (1 – 6 months)	549 (9.9)	256/549 (46.6)	1.79 (1.2 – 2.69)	1.57 (1.02 – 2.4)**
27 – 52 weeks (6 – 12 months)	408 (7.3)	247/408 (60.5)	3.43 (2.3 – 5.12)	2.79 (1.88 – 4.14)**
53 weeks or longer (>1 year)	439 (7.9)	312/439 (71.1)	6.77 (4.64 – 9.89)	5.29 (3.51 – 7.99)**
Breastfeeding experience unassessed‡	3279 (59.0)	1048/3279 (32.0)	1.14 (0.86 – 1.53)	1.63 (1.12 – 2.36)**

*Adjusted for age, race/ethnicity, parity, income, education, nativity, prior breastfeeding experience, family and personal history of breast cancer, prior receipt of mammogram, smoking and drinking status. Abbreviations: OR, odds ratios; US, United States.

†Other was pre-defined by the NSFG and includes American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander

‡The National Survey of Family Growth did not assess breastfeeding history from participants who had never been pregnant or were currently pregnant with their first child, if a prior pregnancy did not result in live birth, if a prior pregnancy resulted in multiple births, if a child born in a prior pregnancy was placed for adoption, died shortly after birth, or no name was given, if a child born in a prior pregnancy did not live with the participant for at least 2 months, or if a child born in a prior pregnancy was older than 18 years at the time of survey.

**statistically significant aOR