Adolescent Breastfeeding: Epidemiology & Role of Health Care Providers

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Important benefits from breastfeeding for adolescent moms

Increased cost savings

Increased intrapartum interval from lactational amenorrhea

Easier returns to pre-pregnancy weights

Fewer pediatric provider visits

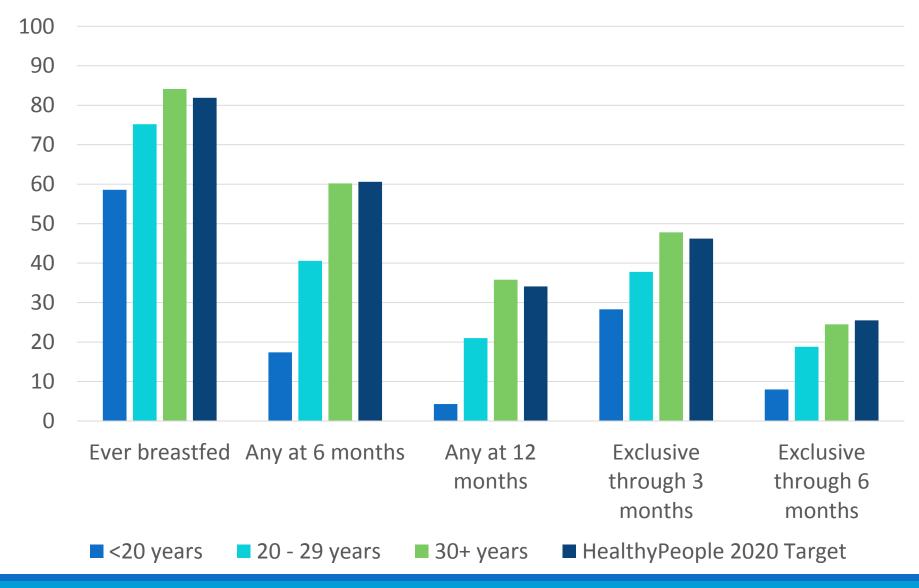
Enhanced maternal-infant bonding

Lower risk for postpartum depression

Adolescent moms may derive the greatest benefits from breastfeeding.

Sipsma HL, Jones K, Cole-Lewis H. (2015). Breastfeeding among adolescent mothers: a systematic review of interventions. *Journal of Human Lactation*. doi:10.1177/0890334414561264.

Breastfeeding by maternal age



Centers for Disease Control and Prevention. Rate of any and exclusive breastfeeding...

http://www.cdc.gov/breastfeeding/data/nis_data/rates-any-exclusive-bf-socio-dem-2012.htm. Accessed August 9, 2016.

PARTNRS Study

Intended to breastfeed: 73-75%

Partners who intended for mothers

to breastfeed: 80-81%

Ever breastfed: 71%

Breastfeeding at 6 months: 16%

Mean duration: < 6 weeks¹

Young women ages 14-21 in a relationship with the biological father of the baby recruited from health care clinics



¹ Among those not breastfeeding at 6 months

Sipsma HL, et al. (2013). Breastfeeding behaviors among adolescents...*JAH;* 53(3):394-400. doi:10.1016/j.jadohealth.2013.04.005. Sipsma H, et al. (2013). Breastfeeding intentions... *Breastfeeding Medicine;* 8(4): 374-380. doi:10.1089/bfm.2012.011.

	n ((%)	
Reasons for intending to breastfeed	Female 216 (73.2%)	Male 232 (80.0%)	
It is healthier for the baby.	183 (84.7%)	145 (62.5%)	
It is a more natural way to feed the baby.	142 (65.7%)	160 (69.0%)	
It will bring me closer to the baby.	133 (61.6%)	111 (47.8%)	
It is healthier for me.	110 (50.9%)	· · · · · · · · · · · · · · · · · · ·	
It is less expensive than buying formula.	81 (37.5%)		
It will improve the baby's IQ.	65 (30.1%)	65 (28.0%)	
So I don't get pregnant again.	6 (2.8%)	5 (2.2%)	
	Female	Male	
Reasons for not intending to breastfeed	79 (26.8%)	58 (20.0%)	
Just cannot imagine/don't want to breastfeed.	26 (37.1%)	13 (25.5%)	
Afraid it will hurt.	25 (31.6%)	12 (20.7%)	
I'm going back to work or school.	15 (21.4%)	16 (31.4%)	
Hard for dad to be involved in feeding the baby.	16 (20.3%)	13 (22.4%)	
Worried about my smoking/diet/medications that might hurt the baby.	13 (18.6%)	3 (5.9%)	
Baby might not like it or latch on.	5 (7.1%)	6 (11.8%)	
So Í can get pregnant again.	1 (1.6%)	2 (4.3%)	

TABLE 2. BREASTFEEDING INTENTION AND REASONS FOR INTENTIONS BY GENDER

Sipsma H, Divney A, Magriples U, Hansen N, Gordon D, Kershaw T. (2013). Breastfeeding intentions among pregnant adolescents and their partners. *Breastfeeding Medicine;* 8(4): 374-380. doi:10.1089/bfm.2012.011.

Factors affecting breastfeeding behaviors among adolescent moms

Breastfeeding intention

- + Partner's intention
- + Household income
- +/- Substance use
- Intimate partner violence

Breastfeeding behavior

- + Breastfeeding intention
- + Exclusivity of breastfeeding
- Early breastfeeding difficulty
- Social support
- Intimate partner violence
- Prepregnancy BMI

Interventions that work?

	Design	Intervention	Breastfeeding Initiation	Breastfeeding Duration	Breastfeeding Exclusivity
Volpe et al., 2000	Controlled trial	A school-based pregnancy program (the Breastfeeding Educated and Supported Teen (BEST) Club)	Significant differences for breastfeeding initiation	Not reported	Not reported
Pugh et al., 2002	RCT	Usual care plus visits from a community health nurse/peer counselor team, daily during hospitalization and then at home during weeks 1, 2, and 4; telephone peer counselor support 2x/week through week 8 and 1x/week through month 6	Not applicable	No significant difference	Significantly higher proportions in the intervention vs. control group at 3 and 6 months
Di Meglio et al, 2010	RCT	Trained teen moms provided breastfeeding support by telephone at 2, 4, and 7 days and 2, 3, 4, and 5 weeks post- discharge from the hospital	Not applicable	No significant difference	Significantly longer among intervention vs. controls
Wambach et al., 2011	RCT	Education and counseling provided by a lactation consultant-peer counselor team	No significant differences after adjustiment	Significant differences in median days	No significant differences
Mejdoubi et al., 2013	RCT	Usual care plus VoorZorg, a nurse home visitation program adapted from the Nurse Family Partnership (NFP) program in the US that provided home visits during pregnancy and the postpartum period (approx 20 in first 6 mos)	No significant difference	No significant differences at 1 week, but significant difference at 6 months	Not reported
Edwards et al., 2013	RCT	Weekly home visits (average of 10 prenatal and 12 during the postpartum visits) by doulas	Significant differences for attempted breastfeeding	Significant differences at 6 weeks but not at 4 months	Significant differences for timing of complementary food introduction

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Ten Steps to Successful Breastfeeding

Evidence-based hospital practices used to improve breastfeeding rates in the U.S. and around the world

Core strategy of the Baby Friendly Hospital Initiative

Consistent implementation of these hospital practices are required for hospitals to achieve "Baby Friendly" designation

World Health Organization. Nutrition: Exclusive Breastfeeding. 2015; http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/. Baby-Friendly USA. The Tens Steps to Successful Breastfeeding. 2015; http://www.babyfriendlyusa.org/about-us/baby-friendly-hospitalinitiative/the-ten-steps.

Evidence for the Ten Steps is lacking among adolescent moms

Much of the current evidence linking recommended practices to breastfeeding outcomes in the U.S. uses

- Hospital-level data
- Evidence from homogenous samples, namely non-Hispanic White, older mothers

Strategies to improve overall health may exacerbate health disparities

- Ten Steps could be differentially implemented in favor of advantaged compared to disadvantaged mothers
- Ten Steps could differentially affect advantaged compared to disadvantaged mothers

Aim and Approach

To examine whether hospital practices used to promote breastfeeding are differentially provided to mothers based on their age

Secondary analysis of data from Listening to Mothers III

- Nationally representative survey
- Moms ages 18-45 of singleton births in U.S. hospitals, July 2011 June 2012
- Sample (n=1506) limited to moms of full-term, healthy babies who intended to breastfeed

Logistic regression models examining association between practices and maternal age group

		OR (95% CI)							
Step	Description	Ages 18-19	Ages 20-24	Ages 25-29	Ages ≥ 30				
4	Nurses and other staff at the hospital helped you get	0.59	0.80	1.03	1.00				
	started breastfeeding when you and your baby were ready	(0.35, 0.99)	(0.59, 1.09)	(0.79, 1.33)					
	AND the first time you held your baby you were skin-to-skin								
5	Nurses and other staff at the hospital showed you how to	1.36	1.07	1.29	1.00				
	position your baby to limit nipple soreness	(0.75, 2.47)	(0.78, 1.48)	(0.98, 1.69)					
6	Nurses and other staff at the hospital NEITHER	1.60	1.10	1.29	1.00				
	provided formula or water to supplement your breast milk	(0.95, 2.70)	(0.80, 1.51)	(0.99, 1.68)					
	NOR gave you any free formula samples, coupons, or other								
	offers								
7	After that first hour after your baby's birth while in the	0.32	0.77	0.97	1.00				
	hospital, your baby stayed with you all the time (sometimes	(0.19, 0.54)	(0.55, 1.07)	(0.73, 1.28)					
	known as 'rooming-in')								
8	Nurses and other staff at the hospital encouraged you to	1.36	0.94	1.19	1.00				
	feed whenever your baby was interested (on demand)	(0.78, 2.40)	(0.68, 1.31)	(0.90, 1.58)					
9	Nurses and other staff at the hospital did NOT give your	0.53	0.76	1.03	1.00				
	baby a pacifier	(0.32, 0.90)	(0.56, 1.04)	(0.79, 1.35)					
10	Nurses and other staff at the hospital told you about	0.95	0.78	1.09	1.00				
	breastfeeding support resources in the community	(0.57, 1.59)	(0.57, 1.05)	(0.84, 1.41)					
Delation									
Rold I	Bold indicates p-values < 0.05								

Sipsma HL, Jones K, Nickel NC. (Under review). Hospital practices to promote breastfeeding: does maternal age matter? Submitted to *Pediatrics*.

Concluding thoughts

Adolescent mothers differ from adult mothers

Partners may matter

Strategies effective among adult mothers may not be equally effective or equitably implemented for adolescent mothers

Recommendations may need to be adapted or reframed for adolescent mothers

- Adolescence is characterized by the development of reasoning skills and emotional regulation
- Messages and goals should be flexible to the extent to which adolescent mothers believe they can attain them

McNeely C & Blanchard J. (2009). The Teen Years Explained. Johns Hopkins Bloomberg School of Public Health. http://www.jhsph.edu/research/centers-and-institutes/center-for-adolescent-health/_includes/_pre-redesign/Interactive%20Guide.pdf. Thank you!

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