

Annoying Studies' Series: Newborn Weight Gain (Again!)



By Jamie Wells, M.D. — December 3, 2016



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For someone who is not a fan of the “trigger warning,” I can report —upon opening my medscape email which contained a Reuter’s Health press release— even I was triggered. It’s just my definition incites annoyance and frustration, not fear or anger.

Triggered by redundant studies of things we already know. Triggered by work that has been repeatedly learned, understood and implemented in actual medical practice. Triggered by an understanding when such studies are performed resources are diverted away from greater risk, greater reward endeavors. Triggered by written language that tends to mischaracterize what practicing physicians know and knew before the publication of said study. Triggered by a narrative that, if accurate, further perpetuates the notion that there exists—all too often— a gap between the lab and real world medical practice. Triggered by false use of the buzz word “collaboration” if these flawed messages are able to be included in such press releases.

And, thus, the name of my new series was born: Annoying Studies. Actually, my inaugural piece which I will retroactively include (utilizing artistic license) is [Population Well-Being Tied to Longevity \(Shocker!\)](#) [2].

Today’s critique will reference a [new study published in the journal *Pediatrics*](#) [3] that concludes “It is not uncommon for newborns to be below birth weight 10-14 days after delivery. A larger percentage of newborns delivered by cesarean had yet to regain birth weight at every point through 1 month.”

First, let’s deconstruct the [Reuter’s Health press release](#) [4] for the study (*direct quotes in italics*)...

“Even though doctors often tell parents that newborns will regain weight lost after birth within a week or two, many infants take much longer to achieve this milestone, a U.S. study suggests.”

This is the opening line. It implies that doctors don't know that it can take longer than a week or so to regain birth weight. We do. Typically birth weight is regained in the first couple weeks, but plenty of infants take longer to achieve this — this is consistently communicated between doctor and patient. In fact, part of doctoring is about assuaging fears and managing expectations.

“Many doctors expect babies to regain those lost ounces and surpass their birth weight within 10-14 days.”

This is an inaccurate depiction of what doctors think. This is an accurate depiction of media messages women and parents receive. All scenarios of individual infant, pregnancy, birthing circumstance (e.g. vaginal vs c-section, complication) and feeding choice, technique and maternal health history and medication use present themselves and permit a nuanced version of who may require more support, who may be expected to have delayed gain and who is completely stable but merely slow to regain, for instance.

“But by 14 days, 14 percent of babies born vaginally and 24 percent of infants delivered via caesarean section surgeries didn't return to their birth weight, the study of almost 144,000 newborns found.”

So, yes, it is fair to say typically babies regain in the first few weeks — 86% of vaginally born infants, 76% of those born via c-section as per this study of a Northern California population. The variability of reasons why many take longer include, for example, mom can often still be in the hospital for a complication or a c-section itself can delay milk production and so on...

“One limitation of the study is that researchers lacked data on how infants were fed once they went home from the hospital, which can influence the amount of weight they gained, the authors note.”

This is not a limitation, this is a meaningful, significant lack of vital knowledge to interpret accurately their findings. Whether formula or breastmilk, frequency, how fed and so forth directly influence infant well-being. This was also positioned on the second page of the release.

Agenda...

It goes on to spend a chunk of sentences about how this delayed gain should reassure breastfeeding mothers, a less than responsible statement given they do not know the individual health issues of these infants or mothers or feeding modes, to name a few.

I don't want to get off topic on how many of these messages wrongly stress mothers who find breastfeeding a challenge. Breast milk is the gold standard of feeding (this is not in dispute), but not the right thing for every single situation. Formula can be an okay alternative. This choice should be a personal and family one discussed with the infant's pediatrician who has examined the patient and knows the complete health history.

Let's pivot to the actual study...

The researchers collected data from 143,889 newborns (108,475 vaginal births, 35,144 c-section or cesarean) delivered in Kaiser Permanente Northern California Medical Centers from 2009-2013. They extrapolated weights of newborns in and out of the hospital and recorded their modes of delivery to determine their findings previously listed in the prior section.

It is in the discussion section, especially, that “Bingo!” goes off in your brain. There is an agenda in this paper— to normalize the pretty routine occurrence of delayed weight gain in breastfeeding mothers. Why? To add pressure to mothers not to give up too soon on the breastfeeding.

That's the subtext of this research, evidenced in this passage:

“Each of these new findings has important implications for newborn care, particularly among those who are breastfeeding. Mothers with newborns still below birth weight 10 to 14 days after delivery may feel anxious about their milk supply as a result of providers holding them to a non-evidence-based norm. Using these new nomograms to understand normal newborn weight trends may reduce the need for clinicians to recommend formula supplementation for breastfed newborns who have not regained their birth weight by 10 to 14 days after birth. Because newborn weight can affect maternal milk supply concern, a common contributor to breastfeeding cessation, it is possible that these new nomograms may even reduce the risk of breastfeeding cessation by reassuring mothers about normal newborn weight trends.”

They go as far as saying:

“Although ensuring adequate feeding and weight gain remains an important part of well newborn care, advice based on anecdote can now be replaced with hard data.”

Take Home Messages...

According to the “[Breastfeeding Report Card](#) [5]” reporting on 2014 in the United States (published by the Centers for Disease Control and Prevention (CDC)), California uniformly and dramatically exceeds national rates of breastfeeding. The reason is multifactorial in nature, but of importance given this study's focus on a Northern California population that will not necessarily reflect many others.

Breastfed babies are traditionally slower to regain—add being a first-time mother and a c-section to the mix and this is further protracted. Not news!

This recent work is based on a narrow lens in a vacuum. It utilizes data points without a clinical picture, uniformity of scales, vital information about very real matters that impact feeding which correlate directly with weight gain. It paints a wide brush that may or may not be realistic for all families.

Women have consistently been getting messages of a breastfeeding at all costs mentality. The language in this release and this study promotes normalizing delayed weight gain in the newborn to urge continuation of breastfeeding and avoidance of cessation. Yes, breastmilk is the most optimal nutrition for the baby, but formula can be good enough and is not evil. The researchers

expressed a desire to minimize panic, it is my opinion they will achieve the opposite.

There are pathological conditions (in mother or baby) where exclusive breastfeeding is not in the best interest of the infant and family. This, too, is valuable to convey as feelings of failure and worry abound in parents, in particular, new ones. There can be medical reasons to follow an infant closely who is sluggish to gain while some babies simply require minor modification in feeding technique. Or, it may be normal for the infant, but maintaining the check ups is still necessary to assure overall baby and family health.

Though delayed weight gain can be a normal occurrence in a newborn, it can also reveal issues that require addressing. Proper evaluation by the infant's doctor who is fully informed about the health status of the newborn is the safest way to determine well-being. In addition, this relationship should provide a continuous loop of reassurance and assuaging fears.

The information collected in this study is well-known by pediatricians. It will unlikely alter current medical practice.

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[1] <http://www.shutterstock.com>

[2] <http://acsh.org/news/2016/11/11/population-well-being-tied-longevity-shocker-10425>

[3]

http://pediatrics.aappublications.org/content/138/6/e20162625?sso=1&sso_redirect_count=1&nfstatus=401&0000-0000-0000-000000000000&nfstatusdescription=ERROR%3a+No+local+token

[4] <http://www.reuters.com/article/us-health-newborns-weight-idUSKBN13I2DH>

[5] <http://www.cdc.gov/breastfeeding/pdf/2014BreastfeedingReportCard.pdf>