Nexus Of Hype: Household Chemicals Cause Obesity, And the Undefined Gut Microbiota Is Invoked Too

By Hank Campbell — September 17, 2018

A new paper grabs media attention by suggesting household chemicals cause obesity in babies[1] - and it does so by changing the gut microbiota, whatever that is.

Oh no. What household chemicals are we talking about? Let's get rid of those. Well, we don't know. Nor do the authors of the paper. As if 'changes in gut microbiome', the 2000s version of endocrine disruption hysteria, was not suspect enough, they used Body Mass Index (BMI) of infants and toddlers, which makes BMI even less valid than it otherwise is. The only correlation they could find, in their look at data from the Canadian Healthy Infant Longitudinal Development (CHILD) birth cohort on microbes in infant fecal matter, was that families who used self-identified "eco-friendly" products had babies with lower BMIs.

Even fMRI psychologists have to be laughing at a methodology which correlates kids with higher levels of Lachnospiracea bacteria during infancy to higher BMIs at ages 3-4. And to add scientific insult to epidemiological injury chemicals were to blame. Unless the parents claimed they used unidentified eco-friendly chemicals. Wait for that headline: Windex will make you fat. (1)

Or at least make kids fat, because parents who claimed to purchase more "organic" products trended toward thinner babies. The rationalization for endorsement of such eco-friendly products[2] by University of Alberta pediatrics professor Anita Kozyrskyj is also another giant confounder. People who have the money to overspend on environmental virtue signaling also top the charts in many categories; pick health outcomes, education, crime, all of it can be correlated to socioeconomics. Wealth opens up a lot of doors.
Parents, you can relax. If you did set the stage for obesity in your kids, it is on you because you fed them too much pizza, not by having a clean house. It is also not tablets or phones or video games that are the problem - it is that you don't make them go outside without that stuff [3].

Your take home-messages are this:

1. BMI is useless in a hand-selected small population, as this was.

2. There is no biological mechanism proposed for how this could happen. Despite there being no plausible biological mechanism for this, two epidemiologists who have no expertise in biology, chemistry or toxicology still deny that basic fact in a related commentary [4] by declaring "There is biologic plausibility to the finding that early-life exposure to disinfectants may increase risk of childhood obesity through the alterations in bacteria within the Lachnospiraceae family."

No, there isn't. There is just statistical correlation, which is why Prop 65 has turned California into the least pro-science state in America and the International Agency for Research on Cancer (IARC) and National Institute of Environmental Health Sciences (NIEHS) are a very dangerous, very expensive joke among the real science community. (2)

If we wonder why so much of the public picks and chooses its acceptance of science based on ideology and confirmation bias, it derives from the fact that so many in the statistics community undermine trust in science and health. Inventing harm using statistics has become a lucrative job works program for epidemiologists.

3. Belief that these harmless trace chemicals magically "bioaccumulate" is warmed over homeopathy. There is no u-shaped curve for harm of Windex any more than there is for Roundup, BPA, aspartame, or radiation.

4. No one knows anything about the gut microbiome other than that some bacteria are good and some are bad, which has been known for 70 years. Buying eco-friendly chemicals may modify some levels of various bacteria, some infants also had lower levels of *Haemophilus* and *Clostridium*, but they may be doing so the same way a donut changes some hormone levels in your body. Change does not mean bad. Everything we consume makes changes. That is why buying expensive yogurt is a giant waste of money, as are studies claiming different is harmful or beneficial when there are trillions of bacteria is silly. Changing those using a food may be good, it may be bad, it is mostly likely doing nothing. Food evangelists also once claimed that eating more spinach would improve your mitochondria and help you age better. People who can afford fancy dairy products also have lots of other lifestyle options that are confounders in why they may age better. It is not guaranteed not to be the Activia you had at breakfast.

5. No one knows what chemicals were used, they just know what marketing labels were on the cleaners parents claimed. The main chemical in an "eco-friendly" cleaner is vinegar, which is full of $\text{CH}_3\text{COOH}$. That's acetic acid, also found in plastic wood glue, and too many synthetic materials to count. You don't want too much of it, just like any other chemical. That does not make trace levels of it harmful.
Claims like this should have a giant red EXPLORATORY on every page of the paper, and watermarked on the press release, so journalists know what they are seeing and have no excuses if they run with chemophobic scaremongering. Otherwise, this is just media clickbait and a new fundraising campaign for their political allies in the environmental movement.

NOTES:

(1) Note: your non-chemical weedkiller is also chock full of toxic chemicals. In the right dose. Just like your eco-friendly version of Windex is.

(2) If NIEHS can't find a problem, they will manufacture one, like in their expensive PR campaign against science here. This is apparently an NIEHS epidemiologist smiling because they data-dredged some HARKing and can suggest some new mundane thing has some sketchy link to a
harmful result, if the dose is 5 orders of magnitude of what can actually occur.