- Pets

REALITY CHECK

THE SCIENCE BEHIND THE HEADLINES



REVIEW

Does having a 'dog baby' make us happier than having a human baby?

While fertility rates across the world are falling, more and more of us are choosing to parent pooches

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BBC

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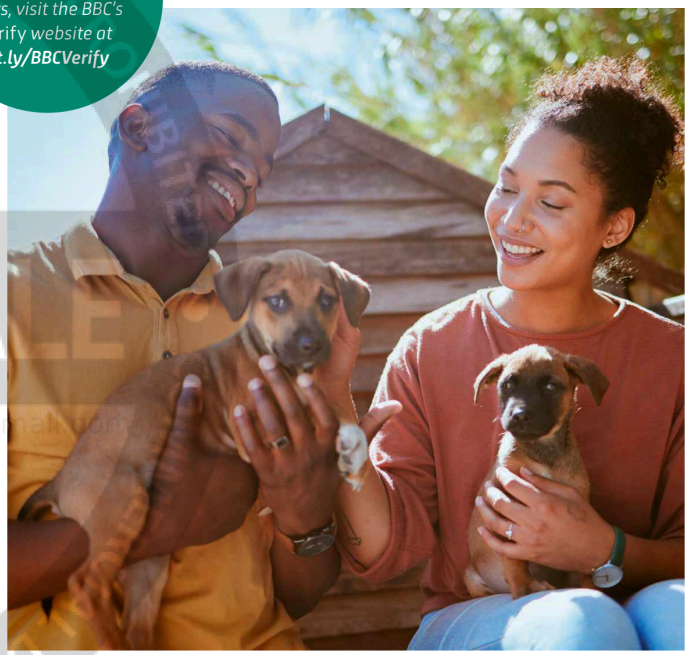
I'll never forget the day my wife and I drove to pick up our miniature schnauzer puppy. She was just four weeks old and could sit in my palm. On the way home, I sat with her on the back seat as she cosied up to my lap, looking up at me with those big, adorable eyes.

In the weeks and months that followed, we used to joke that having a puppy felt like a dress rehearsal for having a baby.

These days, an increasing number of people seem to be thinking this way, identifying as 'dog parents' and seeing their furry friends as substitute children.

In a new paper in the *European Psychologist*, a pair of researchers at Eötvös Loránd University in Budapest – Laura Gillet and Prof Enikő Kubinyi – have drawn attention to this trend and raised the question of whether it's related to the parallel decline in human fertility rates worldwide.

As it happens, my wife and I ended up having human twins a few years after we got Ruby. But amid the ongoing cost-of-living crisis and a growing emphasis on individualistic values, could it be that many people are choosing to have dogs instead of raising children?



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ABOVE There's an argument to be made that humans have evolved an instinctive urge to nurture

LEFT Dogs share some of the same cute features as babies (big eyes, tall foreheads) that bring out people's broody sides

> **"There are over a million more pet dogs in the country today than there was a decade ago"**

SUBSTITUTE CHILDREN

In the UK, fertility rates are at historic lows. In 2023, we were averaging 1.44 children per woman (the figure needs to be over 2 to sustain a population), with the number of live births at 591,072, the lowest annual figure since 1977. At the same time, however, dog ownership is on the rise, especially among younger generations.

There are over a million more pet dogs in the country today than there were a decade ago, and 45 per cent of owners are millennials (born between the early 1980s and mid 1990s). Anecdotally, we're increasingly treating dogs like people. At our local café you can order a 'puppuccino' and many owners are setting up their dogs' own social media accounts.

In their paper, Gillet and Kubinyi make the case that humans have an evolved instinct for caregiving, while at the same time, through thousands of years of domestication, dogs have evolved to press many of our caregiving buttons.

For instance, we're drawn to the cute characteristics of baby faces, such as large eyes and tall foreheads, which dogs share. Indeed, many popular breeds display 'paedomorphosis', which is the retention of juvenile appearance through adulthood.

There's neuroscientific evidence to suggest dogs are well-placed to act as substitute children. A brain imaging study from 2014 showed that when mothers looked at their dogs, it activated similar neural networks as when they looked at their human children, especially across mid-brain regions related to the experience of reward.

Another study from 2015 found that when owners gazed into the eyes of their dogs, it triggered increases in the neurohormone oxytocin, which has many functions but is often associated with bonding and is known to be important for mother-infant interactions. You may also have noticed that many owners talk to their dogs in a manner that resembles the way mothers talk to their infants, with higher-pitched and infant-directed speech known as 'motherese'.

Gillet and Kubinyi draw many other parallels between the parenting of humans and the owning and caring of dogs. For instance, psychologists have previously shown that human children can develop different attachment styles, such as secure and insecure, that relate to their behaviour when they're with, or away from, their parents. These attachments are largely shaped by the emotional consistency shown by their parents.

Similarly, research with dogs shows that they form close attachments to their owners that match the categories seen in humans. Just as with humans, the dogs' attachment style is influenced by their

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"[Parents] experience a decline in happiness over the first few years of parenthood, likely due to the demands of the job"

owners' caring approach, such as how nurturing or authoritarian they are.

There's even evidence that dog owners can experience something akin to the 'baby blues' – the intense and sometimes difficult emotions experienced by mothers in the first few weeks after childbirth. As a 2024 study put it, "emerging evidence suggests that puppy owners may undergo 'puppy blues', encompassing feelings of emotional strain, anxiety about responsibility and challenges in adapting to the changes brought by a new puppy."

If caring for a puppy can simulate many aspects of becoming a mum or dad, is it a shrewd move to become a dog parent rather than a baby parent? It'll certainly cost you less money and interfere less with your career. And I can say from personal experience that poop-a-scooping is probably easier than nappy changing, though neither is a bundle of laughs.

But are dog parents destined to be happier than human parents? This is where the picture starts to become a bit more complicated.

EMOTIONAL CHALLENGES

Parenthood of the human variety seems to bring a short-term happiness penalty. Parents-to-be tend to experience a period of anticipatory joy, but then experience a decline in happiness over the first few years of parenthood, likely due to the gruelling demands of the job.

This penalty gradually fades and they return to their pre-parenthood levels of happiness. These experiences often come as something of a shock to many people who assume that becoming a parent is the most joyful thing you can do in life.

But a lot of this comes down to how you choose to measure happiness, including whether you're talking about in-the-moment pleasure or the long-term satisfaction of reflecting on a life well spent. Many parents will say that having children was the most meaningful experience of their lives.

What about dog owners? Again, the picture is complicated and a lot of the big longitudinal studies involve pets generally, rather than dogs specifically. That said, there are parallels with the parenting literature in that the pet ownership experience isn't always as rosy as you might expect.

For instance, a systematic review of 54 studies of the quality of life of dog and cat owners found that only 31 per cent showed a clear positive impact, compared to nine per cent showing a negative impact.

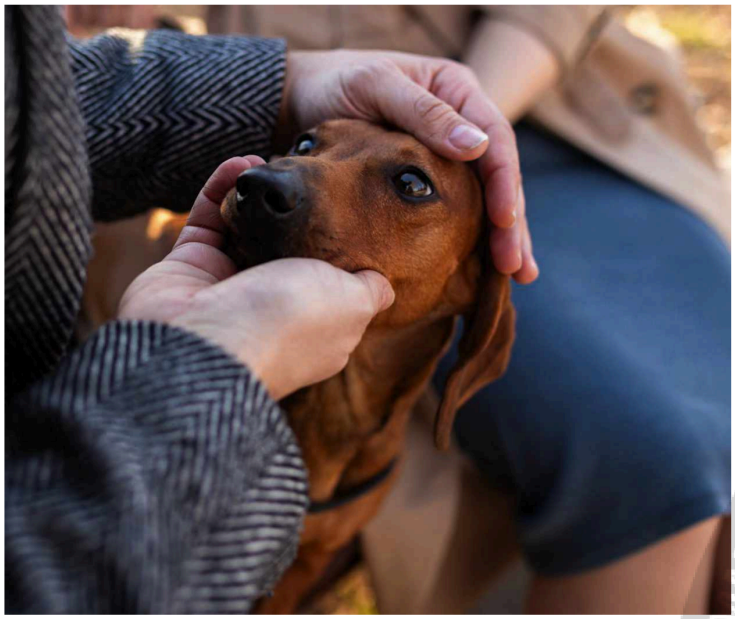
As with the parenting story, the mixed findings for dogs (and pets generally) are probably due to the emotional challenges of being a dog owner, including the demands of nurturing them and the worries of keeping them safe.

There are also other factors, such as your financial situation and the kind of society you live in. Parental happiness tends to be higher in nations that have more child-friendly policies.

For both dog and human parents, age could make a difference, as well. For instance, people who become parents in their thirties tend to be happier than those who become parents in their early twenties. Among elderly dog owners specifically, there's clear evidence that their canine companions can help alleviate loneliness.

There are also other boons from owning a dog, such as encouraging more physical exercise and giving you the opportunity for chance social encounters with other dog walkers.

In the case of babies versus puppies, weighing them against each other as tools for achieving happiness is probably the wrong perspective. What they both offer – in their own cute and trying ways – is an outlet for the deep-seated human instinct to care and nurture, one of the better angels of our nature that's worth celebrating, however we choose to satisfy it.



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BELOW Dogs need walking, which creates opportunities for exercise and meeting other dog owners. Both of which can help your happiness



by **DR CHRISTIAN JARRETT**
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cognition. The findings showed that higher levels of fluoride exposure, such as drinking water containing more than 1.5mg of fluoride per litre, were associated with a lower IQ in children.

The NTP conceded, however, that there was insufficient data to determine if the low, US-recommended fluoride levels of 0.7 mg/L has a negative effect on children's IQ. And, of the 74 non-US-based studies consulted, it said, "52 were rated as low quality (high risk of bias)".

Vida Zohoori, professor in public health and nutrition at the UK's Teesside University and known for her research on fluorides, says these studies offer insufficient data from which to draw conclusions.

"Most were conducted in regions where fluoride concentrations are well above US standards, limiting their relevance to community water fluoridation at 0.7mg/L," she says.

"The majority of studies were cross-sectional, rather than longitudinal or randomised, making it impossible to establish causality. Many also failed to control for key variables, such as exposure to iodine or lead, poor nutrition and socioeconomic status – all of which can independently influence child cognitive development."

But the evidence in favour of adding safe amounts of fluoride to drinking water is robust. Based on a systematic Cochrane review from 2015 (and later updated in 2024), Zohoori projects that if fluoride were removed from public water supplies, we would see large increases in childhood tooth decay.

It's a sentiment shared by Dr James Bekker, associate professor at the University of Utah School of Dentistry and specialist in pediatric dentistry. "There are no scientifically viable studies that show detrimental effects of fluoride if added in safe dosages," he says.

Bekker explains that fluoride in toothpaste provides a topical effect during brushing, whereas small traces in drinking water and supplements offer continuous and systemic exposure, strengthening tooth enamel and making it more resistant to acids.

According to the CDC, water fluoridation reduces tooth decay by about 25 per cent in children and adults. School children living in communities where water is fluoridated have, on average, 2.25 fewer decayed teeth.

"Many children don't have access to fluoride supplements," Bekker says, adding that before the ban, water fluoridation was only present in half of Utah. "In the non-fluoridated water populations we've already seen a significant increase in dental decay, compared to those who have access to fluoridated water. If untreated, cavities get larger and eventually reach the nerve of the tooth, which can lead to infection and potential tooth removal."

If all 50 US states stopped community water fluoridation programmes, children and adolescents aged 0–19 could expect to develop 25.4 million more

ABOVE Not every country adds fluoride to its drinking water, since the mineral is already present naturally, in varying levels

RIGHT Fluoride crystals, seen under a microscope

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"The support for fluoride across the dentist community is proof of its success and safety, because it goes against the financial interest of dentists"

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cavities within the next five years. This would be the equivalent of a new cavity for one in every three American children, costing a total of $9.8bn (£7.2bn), according to a new study published in *JAMA Health Forum* in May.

"We specifically measured the increase in dental cavities – the kind that might need anything from a filling to a root canal or even a tooth extraction," says Dr Lisa Simon, fellow in oral health and medicine integration at Harvard School of Dental Medicine and co-author of the study. "We included decay in both baby teeth and adult teeth, which start growing when children are around six years old."

TOOTH DECAY ON THE RISE

With the Utah ban now in place, Bekker estimates it could take five years before we see the full effects. In Calgary, Canada, though, the effects were seen even sooner. In 2011, the city removed fluoride from its drinking water and just three years later the dental decay of children spiked. In a single year, 32 out of every 10,000 children in Calgary were put under general anaesthesia to treat tooth decay, compared with 17 out of 10,000 in Edmonton, a city in the same province. Calgary has since voted to reinstate fluoride.

Although 63 per cent of the US population receives fluoridated water, most countries don't add fluoride to their drinking water. Reasons range from its natural occurrence in drinking water to concerns over safety and the belief that people should be able to choose what they ingest.

According to the CDC, during 2015–2018, US children and adolescents drank an average of 23 ounces (680ml) of tap water daily.

In the UK, only 10 per cent of people receive purposely fluoridated water, with fluoride occurring naturally in low levels in most drinking water in England and Wales. But the UK government confirmed in March that it would expand water fluoridation in the north-east, after data revealed that one in five children aged five has experienced tooth decay in England, with higher rates of up to one in three in more deprived areas. The most common reason children aged five to nine are admitted to hospital is to have treatment for decayed teeth.

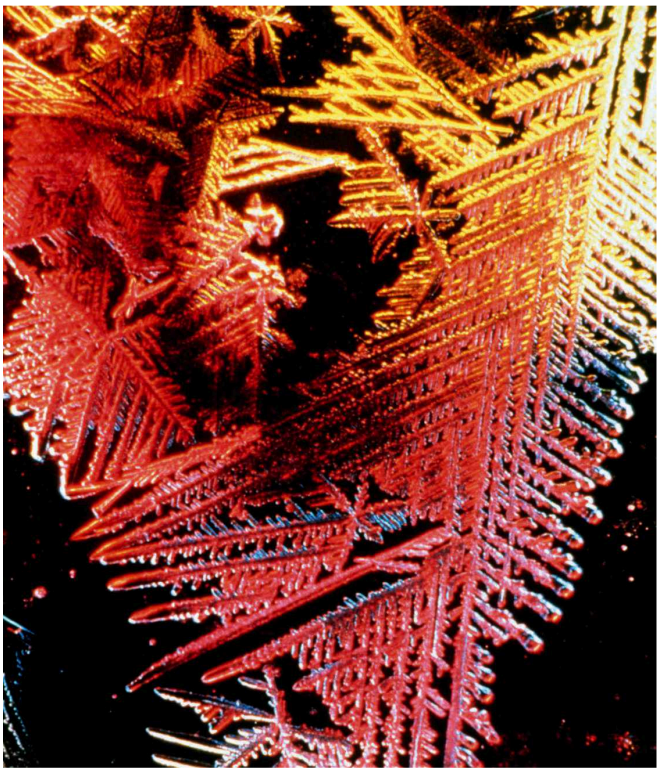
"Recent studies have shown that the benefit of water fluoridation isn't as dramatic as it used to be, since fluoride was added to toothpaste and became more widely used from the 1970s," says Dr Andrew Bain, a dentist based in London. "But tooth decay is on the rise and we need better education around dental care. The frequency of sugar intake is key to prevention. So, I would be in support of water fluoridation here in the UK."

Dr Scott Tomar, professor and associate dean of prevention and public health sciences at the University of Illinois, Chicago, and a spokesman for the American Dental Association, applauds the UK's water fluoridation extension. He's concerned that misinformation in the US on fluoride could lead to public fear of the mineral in other forms – including toothpaste – and lead to more bans across US states and communities.

Tomar points out that the support for fluoride across the dentist community is proof of its success and safety, because it goes against the financial interest of dentists – you can make much more money treating problems than preventing them. "So why would we be championing water fluoridation like this?" he asks. "I'm very concerned because we don't have great alternatives to fluoride and we can no longer turn to the federal government for support."

Dentists and industry bodies are, instead, coming together to fight their cause, with the Utah Oral Health Coalition due to launch the Your Smile Matters campaign to promote good oral health. "We believe this is mostly a political decision," says Lorna Koci, chair of the coalition and program director of Davis Donated Dental, which supports vulnerable communities with dental care.

"We continue to believe that water fluoridation is safe – it's the most effective way to fight decay and the most cost-effective method." **SF**





by **ANA SANTI**
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