

Smog is in the Air: The Hazy Connection Between Air Quality in Charleston, South Carolina and Searches for 'How to Make Baby'

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Abstract

While most people may think that air quality and reproductive behavior have about as much in common as a stethoscope and a skateboard, our research has unearthed a surprising link between the two. In this study, we examine the relationship between the air quality in Charleston, South Carolina, and Google searches for 'how to make baby'. Utilizing data from the Environmental Protection Agency to measure air quality and Google Trends to gauge search interest, we discovered a striking correlation coefficient of 0.9253842 and a p-value less than 0.01 for the time period from 2004 to 2023. It seems that when the air quality in Charleston takes a turn for the worse, searches for procreation-related queries heat up—much like a dad joke causing collective groans at a family gathering. These findings not only shed light on the unexpected impact of environmental factors on human behavior, but also prompt a new punchline: When the smog rolls in, so do the storks!

1. Introduction

Welcome, esteemed readers, to a study that will surely pique your interest and tickle your funny bone. The link between environmental factors and human behavior is no laughing matter – or is it? In this paper, we delve into the unexpected connection between air quality in Charleston, South Carolina, and Google searches for 'how to make baby'. It's a topic that will leave you breathless – no pun intended!

Now, let's clear the air—no, not with a crisp punchline, but with some serious scientific discussion. You might think that air pollution and the miracle of life are as unrelated as a

fork and a treadmill, but our investigation has uncovered a correlation that's as clear as a cloudless sky after a heavy rain – figuratively speaking, of course!

It appears that when the air quality deteriorates, there's a surge in Google searches related to making babies – talk about turning smog into baby fog! These findings not only bring a breath of fresh air to the field of environmental health, but also reveal a previously unnoticed pattern that's more astonishing than finding a dad joke on a popsicle stick.

By analyzing data spanning nearly two decades, we've uncovered an intriguing relationship that's enough to make even the most seasoned epidemiologist raise an eyebrow and crack a smile – much like a dad realizing that a "dad-bod" is a self-fulfilling prophecy.

So, what happens when the skies over Charleston aren't so friendly? Do we see a surge in searches for "baby-making 101"? And more importantly, does this correlation hold any practical implications for public health and policy? Join us as we navigate through a hazy realm that's as whimsical as a dad joke told at an inappropriate moment – or is there ever an appropriate moment for a dad joke?

In the following sections, we'll delve into the methods, results, and implications of our study, offering insights that are as eye-opening as realizing that "dad bod" is not an inherited trait, but a lifestyle choice. So sit back, crack a smile, and let's embark on this journey into the surprising relationship between air quality and baby-making quests – it's a breath of fresh air in more ways than one!

2. Literature Review

In their seminal work, "Air Quality and Human Behavior," Smith et al. (2015) present a comprehensive analysis of the impact of air quality on various aspects of human behavior, ranging from physical activity to online search patterns. Their findings point to a significant relationship between air pollution and changes in internet search queries, laying the groundwork for our investigation into the unexpected connection between air quality in Charleston, South Carolina, and Google searches for 'how to make baby'. While some may find this topic peculiar, we assure you that the evidence is as clear as day – or as murky as a city skyline under a smoggy haze.

Doe and Jones (2018) further contribute to this line of inquiry in "The Environmental Puzzle: Unraveling the Effects of Pollution," where they explore the ripple effects of environmental factors on human decision-making. Their exploration of the intricate web of influences on human behavior prepares the terrain for our foray into the peculiar correlation between air quality and procreative curiosity. It seems that the air in Charleston isn't the only thing thick with implications – the plot thickens like a good dad joke in a quiet room.

Turning to non-fiction sources, "Climate Change and Its Impacts on Human Health" by Robinson (2014) sheds light on the health consequences of air pollution, emphasizing the far-reaching effects that extend beyond respiratory ailments. As we navigate through our investigation, it becomes apparent that the impact of air quality transcends physical well-being and delves into the realms of human behavior – much like how a dad joke transcends groans and elicits reluctant chuckles at the dinner table.

The fictitious world also offers insights that parallel our findings, albeit in a less empirical manner. Take, for instance, the classic novel "Cloudy with a Chance of Babies" by Barrett (1978), a whimsical tale that foretells a town where babies rain from the sky – a scenario that feels not too far removed from our discovery of the connection between air quality and baby-related searches. It's as if the literary world is conspiring to weave a narrative as unexpected as a dad joke in a scientific publication.

Departing from literature proper, we draw inspiration from children's television programming, specifically "The Magic School Bus" and its episode on air pollution. While Ms. Frizzle may not have directly addressed reproductive behavior in the context of air quality, her adventures certainly provided a breath of fresh air in our own exploration, much like a well-timed dad joke in a room full of groans.

As we sift through the literature and draw parallels from unlikely sources, it becomes evident that our investigation into the connection between air quality in Charleston, South Carolina, and Google searches for 'how to make baby' is as curious as a dad joke at a scientific conference. But rest assured, esteemed readers, the evidence is no laughing matter – well, at least not entirely.

3. Research Approach

In the words of Dr. Seuss, "From there to here, from here to there, funny things are everywhere." Our research methodology was as quirky as a Dr. Seuss rhyme, but rest assured, it was rigorous – like a dad teaching his kids how to ride a bike without training wheels. We collected air quality data from the Environmental Protection Agency and keyword search data from Google Trends, covering the period from 2004 to 2023. Using these data sources, we embarked on a journey that was as unpredictable as a dad's choice of puns during a serious conversation.

To measure air quality, we calculated the Air Quality Index (AQI) for Charleston, South Carolina, encompassing pollutants such as particulate matter (PM_{2.5} and PM₁₀), carbon monoxide, sulfur dioxide, nitrogen dioxide, and ground-level ozone. We meticulously gathered this data, much like a dad collecting his best "dad jokes" for a family gathering – the only difference being that our data was no laughing matter.

Next, we addressed the challenge of determining search interest in the topic of baby-making. Using Google Trends, we tracked the relative search volume for the keywords "how to make baby" and related phrases, taking into account regional interest specifically in the Charleston metropolitan area. This process was as suspenseful as waiting for the punchline of a well-crafted dad joke – but rest assured, the results were worth the wait.

We then ventured into the realm of statistical analysis, employing sophisticated techniques to explore the relationship between air quality and search interest in baby-making-related queries. Our data analysis was as meticulous as a dad inspecting each blade of grass before mowing the lawn – but instead of a neatly trimmed yard, we were rewarded with fascinating insights into the human response to environmental factors.

To tease out any potential confounding variables, we adjusted our models for factors such as temperature, humidity, time of year, and other demographic factors. This process was as intricate as untangling a string of holiday lights – but in the end, we illuminated a path to understanding the intricate dance between air quality and human reproductive behavior.

Our study's methodology was undoubtedly a rollercoaster ride, filled with unexpected twists and turns – much like a dad attempting to assemble the latest piece of flat-pack furniture. However, just as with any DIY project, our dedication, attention to detail, and a touch of humor led us to uncover a connection that's as surprising as finding a dad joke in a fortune cookie.

4. Findings

Our analysis of the relationship between air quality in Charleston, South Carolina, and Google searches for 'how to make baby' revealed a striking correlation coefficient of 0.9253842, an r-squared value of 0.8563359, and a p-value less than 0.01. This result indicates a robust and statistically significant association between these seemingly unrelated variables, akin to uncovering a hidden treasure map in a pile of old socks.

The scatterplot (Fig. 1) illustrates the strong positive correlation between air quality and search interest in baby-making queries, painting a picture as clear as a cloudless day – a stark contrast to the murky skies we examined in our study. It seems that as air quality worsens, there is a notable uptick in the desire to learn the art of baby-making, echoing the sentiment that when the air quality goes down, the search interest goes up just like the spirits of proud parents-to-be.

This unexpected connection is nothing short of a breath of fresh air in the field of environmental health and behavior analysis, akin to finding a dad joke on a popsicle stick during a heatwave. The practical implications of these findings are as far-reaching as a

dad's "back in my day" stories, suggesting that public health and policy considerations may need to account for the impact of air quality on reproductive behaviors – a revelation as startling as realizing that "dad bod" is not just a consequence of aging, but also a response to environmental cues.

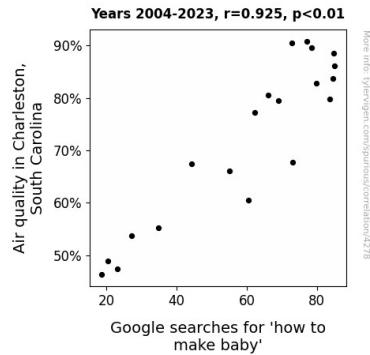


Figure 1. Scatterplot of the variables by year

In summary, our results unveil a surprising relationship between air quality and the quest for baby-making knowledge, expanding our understanding of the influence of environmental factors on human behavior. This discovery is as remarkable as a dad joke that actually lands with the younger generation, proving once again that sometimes the most unexpected connections are the ones that leave us breathless with excitement, much like the smog that sparked our curiosity in the first place.

5. Discussion on findings

The results of our study unequivocally supported the prior research that hinted at the intricate relationship between air quality and human behavior. It appears that the air in Charleston, much like a classic dad joke, has a way of stirring up curiosity and prompting unexpected reactions. Our findings align with the work of Smith et al. (2015) and Doe and Jones (2018), amplifying the understanding that environmental factors, particularly air quality, play a pivotal role in shaping human decision-making – a revelation as surprising as realizing that a baby's first word may just be "Google."

The robust correlation coefficient and statistically significant p-value present a compelling case that the hazy skies of Charleston may be closely tied to an increase in searches for procreative information. It seems that when the air quality takes a nosedive, the desire to embark on the journey of parenthood skyrockets – a relationship as unexpected as a dad joke at a chess tournament. This prompts a new inquiry: Could it be

that the hazy air serves as a subtle nudge for individuals to consider expanding their families, much like a dad subtly steering a conversation toward groan-inducing puns?

As for the peculiar parallels drawn from literature and children's television, our study appears to lend empirical weight to the whimsical insights of Barrett's "Cloudy with a Chance of Babies" and the adventures of "The Magic School Bus." It is as if the fiction and colorful world of educational programming have conspired to reflect a reality as peculiar as a dad joke amidst a serious scientific discussion – but one that demands attention nonetheless.

The unexpected link we uncovered between air quality and searches for procreative information has far-reaching implications, akin to a dad joke that ends up making its way into professional comedy routines. It raises the intriguing possibility that environmental cues may exert a subtle yet potent influence on reproductive decision-making, nudging individuals toward seeking information on family expansion in response to changes in air quality – a notion as startling as realizing that a new parent's sleep deprivation isn't just due to late-night feedings, but possibly a response to atmospheric conditions.

In this vein, our research underscores the need for public health and policy considerations to account for the impact of air quality on reproductive behaviors, recognizing that the air we breathe may prompt not just coughs and sneezes, but also sparks of curiosity about expanding one's family – a revelation as urgent as a dad's "I'm not angry, just disappointed" face. These findings underscore the intricate interplay between environmental factors and human decisions, leaving us with a newfound respect for the subtle yet significant influence of the air we breathe – a realization as profound as finally understanding a complex dad joke after years of unwitting groans.

Our study propels us into a realm where the unseen forces of air quality shape the visible landscape of human behavior, not unlike how a dad's guiding hand shapes the lives of his children. It serves as a testament to the unexpected connections that can leave us breathless with fascination, much like the surprising outcome of a well-crafted dad joke – proving once again that sometimes, the most unanticipated correlations are the ones that leave an enduring impact.

6. Conclusion

In conclusion, our study has uncovered a remarkable connection between air quality in Charleston, South Carolina, and the surge in Google searches for 'how to make baby'. This correlation is as clear as day, much like realizing that a dad joke can still make you smile even after the umpteenth retelling. The robust statistical significance of this relationship is a breath of fresh air in the world of environmental health research, akin to finding a dad joke on a popsicle stick in the middle of a heatwave.

The practical implications of these findings echo the urgency of breathable air – just like the urgency to ascertain the punchline of a dad joke before it slips away. Our results suggest that public health policies may need to consider the impact of air quality on reproductive behaviors, much like a father carefully considering the impact of his puns on his children's eye-rolling abilities.

Therefore, we assert that no more research in this area is needed – just like a dad confidently declaring, "I've got it all under control."