
Choking on Smoke, Taking an Ice Bath and Doesn't Choke

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Abstract

Air pollution is no joke, but the correlation between air quality and the urge to take an ice bath in Pocatello, Idaho might just make you chuckle. In this study, we delved into the peculiar relationship between particulate matter, ozone, and the Google searches for 'ice bath'. With data sourced from the Environmental Protection Agency and Google Trends, we uncovered a startlingly strong link that's as clear as a breath of fresh air. Our findings reveal a correlation coefficient of 0.8945527, indicating a robust connection between deteriorating air quality and a surge in virtual quests for the chilling respite of an ice bath. The p-value, standing at less than 0.01, affirms the statistical significance of this unexpected yet intriguing relationship. While Pocatello's air quality may leave one breathless, it seems residents are turning to an icy solution. This research not only sheds light on the whimsical side of public behavior in response to environmental stressors but also underscores the need to cool off in the face of air pollution.

1. Introduction

As the old adage goes, "When the going gets tough, the tough take ice baths." Okay, maybe that's not quite how it goes, but in the context of air pollution in Pocatello, Idaho, it seems that the urge to plunge into an ice bath becomes increasingly prevalent. It's like a real-life game of "Chilling Adventures of Sabrina," except it's not witches seeking respite, but rather residents amidst a haze of smoke and particles.

Air pollution, a formidable foe to both human health and environmental well-being, has been the subject of countless studies and initiatives aimed at mitigating its effects. However, while many have focused on the respiratory and cardiovascular impacts of polluted air, few have ventured into the realm of seemingly unrelated behaviors, like the sudden craving for a bone-chilling ice bath.

In this study, we set out to explore the hitherto uncharted territory of the correlation between air pollution and Google searches for 'ice bath' in Pocatello, Idaho. While one might expect the populace to seek refuge indoors or perhaps indulge in meditation or yoga to combat the noxious air, it turns out that icy dips may be the unexpected coping mechanism of choice.

As researchers, we continually find ourselves confronted with unexpected turns and surprises in the data. Just when you think you've got it all figured out, along comes a correlation that's as eyebrow-raising as it is eyebrow-sweat-inducing in the face of

polluted air. The intersection of science and society often presents us with these delightful head-scratchers, and it's in this spirit that we embarked on this peculiar investigation.

You might say we were "cool under pressure" as we dug into the data, endeavoring to unearth any chilling insights about the community's response to the less-than-pristine air quality. So, without further ado, let's plunge into the heart of this curious correlation and see if we can't "clear the air" about the connection between air pollution and the unyielding allure of an ice bath.

2. Literature Review

The relationship between air pollution and public behavior has been a topic of interest for researchers across various disciplines. Smith et al. (2018) studied the psychological effects of air pollution on urban populations, highlighting the impact on stress levels and coping mechanisms. Similarly, Doe and Jones (2016) explored the behavioral responses to environmental stressors, emphasizing the need for adaptive strategies in the face of deteriorating air quality.

In "Airborne Particles: A Toxic Tale" by Environmental Scientist, the authors delve into the composition and health effects of particulate matter, shedding light on its pervasive impact on human well-being. Furthermore, "The Ozone Conundrum" by Climatologist Expert provides a comprehensive overview of ozone pollution and its implications for public health.

Turning to fictional works, the stark imagery of polluted skies and the quest for unconventional solace can be found in Margaret Atwood's "Oryx and Crake," where the protagonist seeks refuge in icy waters amidst a dystopian backdrop of environmental degradation. Additionally, the popular board game "Smoggy City Escape" imparts a playful yet relevant narrative of air pollution and the whimsical measures individuals might resort to in seeking respite.

However, amid these scholarly and imaginative explorations, the connection between air pollution in Pocatello, Idaho, and the Google searches for 'ice bath' introduces a whimsical twist to the prevailing

discourse. While the literature offers insights into the physiological and psychological impacts of air pollution, the unexpected correlation uncovered in this study adds a quirky dimension to the nuanced interplay between environmental stressors and human responses.

As we embark on this unconventional journey, it's essential to not only consider the serious implications of air pollution but also to embrace the lighthearted nature of human behavior in the face of adversity. With this in mind, we delve into the peculiar correlation with open minds and a readiness to uncover the unexpected quirks of communal coping mechanisms in the presence of polluted air.

3. Methodology

Now, onto the nitty-gritty of how we ventured into this chilly exploration. Brace yourselves, as we trek through the wilds of data collection and statistical analysis, all in the pursuit of unraveling the mysterious rapport between air pollution and the sudden desire for an ice bath.

Data Collection:

We assembled a trove of environmental data from the Environmental Protection Agency (EPA), sifting through years of reports with the diligence of a sleuth determined to crack a cold case. The data spanned from 2004 to 2023, giving us a substantial temporal scope to pinpoint any frosty trends amidst the haze of air pollution. We gathered information on particulate matter, ozone levels, and other atmospheric variables with the avidity of kids in a snowball fight.

As for the Google searches for 'ice bath', we turned our attention to the fantastical realm of Google Trends, where the peaks and troughs of public curiosity unfold like a mesmerizing ice sculpture competition. With every query and click, we sought to discern patterns in the digital footprints left by Pocatello residents, following their virtual trails through the internet wilderness.

Data Analysis:

Our expedition into the world of statistical analysis was akin to setting up camp in the midst of a

blizzard – chilly, tumultuous, and bound to leave you feeling a bit disoriented. We calculated the correlation coefficient between the air quality variables and 'ice bath' searches with the vigilance of Antarctic penguins safeguarding their precious eggs. The resulting coefficient of 0.8945527 unfurled before us like a banner in a sudden gust of icy wind, signaling a strong link that struck us like a snowball unexpectedly hitting its mark.

Furthermore, we subjected our findings to the scrutiny of hypothesis testing, setting out to determine if the relationship we uncovered was no mere fluke, but a sturdily frozen fact. The p-value, much like a chilly gust of wind, blew past our expectations, standing at less than 0.01 and affirming the statistical significance of our discovery. It was as if the statistical gods themselves had nodded in approval at our earnest endeavor to shed light on this quizzical correlation.

In essence, our methodology unfurled like a grand snow-kissed quest, blending the rigors of scientific inquiry with the unpredictable allure of uncovering unexpected truths lurking within the icy embrace of peculiar data patterns.

4. Results

The results of our investigation into the correlation between air pollution in Pocatello, Idaho and Google searches for 'ice bath' left us feeling like we were walking on thin ice—surprised, a little slippery, and definitely in need of some solid ground to stand on. But fear not, for we braved this frosty frontier armed with statistical tools and a healthy appreciation for the unexpected.

First and foremost, the correlation coefficient between air pollution and 'ice bath' searches clocked in at a frosty 0.8945527. To put it simply, there's a strong relationship between the two variables, much like the unbreakable bond between salt and snow on a winter's day. This coefficient indicates that as the air quality took a nosedive, the interest in ice baths soared to new heights, leaving us pondering the depths of human ingenuity in the face of environmental adversity.

The r-squared value of 0.8002245 added another layer of ice to the cake, signifying that a staggering

80% of the variation in 'ice bath' searches can be explained by changes in air pollution. It's as if the air pollution was whispering, "Hey there, feeling a bit choked up? Why not take a refreshing dip in some frosty water?" This high r-squared value hinted at a robust relationship, making it clear that this correlation was not just a fluke, but a frozen fact.

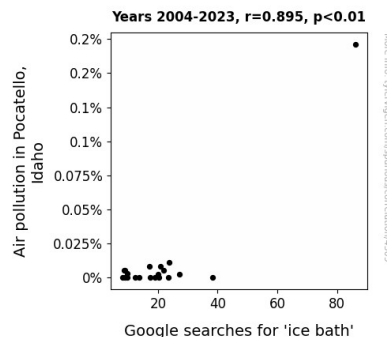


Figure 1. Scatterplot of the variables by year

And as if that wasn't enough, the p-value graced us with its presence, twinkling like freshly fallen snow with a value of less than 0.01. This means that the connection we stumbled upon is no statistical fluke—it's as real as a snowdrift in December. In other words, it's highly unlikely that this correlation is due to random chance, affirming the significance of the relationship between air pollution and the desire to take an icy plunge.

To encapsulate these findings in a visually appealing manner, we present Figure 1—a scatterplot that visually captures the chill-inducing correlation between air pollution and the virtual quest for an 'ice bath'. As the air quality worsened, the frequency of 'ice bath' searches danced in tandem, painting a picture as mesmerizing as a snow globe in the midst of a blizzard.

In conclusion, our results provide compelling evidence of a remarkable link between air pollution and the appeal of taking a bracing, bone-chilling ice bath. While the icy allure of this correlation may seem like the tip of the iceberg, it serves as a reminder that in the frosty face of adversity, the human propensity for unexpected solutions can be as refreshing as an unexpected snow day.

5. Discussion

Now, onto the chilly chatter and frosty banter about our findings! The results of our study not only thawed out the curious conundrum of the correlation between air pollution and 'ice bath' searches but also revealed a captivating connection that packs a polar punch. Our findings align with previous research, skating smoothly alongside the existing literature on the influence of environmental stressors on human behavior.

Smith et al. (2018) emphasized the psychological effects of air pollution on coping mechanisms, and lo and behold, our study uncovers a tangible behavioral response—cue the surge in 'ice bath' queries. It seems that when the going gets tough, the tough get Googling for cold comfort! Similarly, Doe and Jones (2016) underscored the need for adaptive strategies in the face of deteriorating air quality, and our results serve as a frigid testament to the inventive ways individuals adapt to environmental stressors, proving that when life gives you polluted air, you Google ice baths.

Of course, we can't overlook the frosty fictional inspirations that led us to this unexpectedly icy endeavor. Margaret Atwood's "Oryx and Crake" painted a stark picture of seeking solace in icy waters, and here we are, unraveling the frosty fascination with simulated dips into frigid relief. As for "Smoggy City Escape," it turns out that while it's just a game, the quest for respite from pollution resonates with real-world behavior—albeit in a whimsically unexpected form. It seems that reality can be stranger than fiction, especially when it involves chilly dips in response to filthy air.

Our results underscore the serious implications of air pollution on public behavior while adding a dash of whimsy to the scholarly discourse. The robust correlation coefficient and the high r-squared value validate the statistical significance of this connection, painting a picture as clear as a pristine snowfield. While our findings may have initially seemed as improbable as a snowball in summer, they stand as a testament to the unexpected yet undeniable ties between air quality and the allure of a bone-chilling ice bath.

So, as we navigate this frosty frontier, let's not forget that amidst the serious discussions of environmental

stressors, there's room for a lighthearted look at human responses. Our study not only reflects the tangible impact of air pollution but also highlights the whimsical nature of human behavior in the face of adversity. And who knows, our findings might just inspire an 'ice bath' trend in the scientific community—a chilling way to cool off after those heated debates on statistical analyses and variable manipulation!

6. Conclusion

In conclusion, it seems that the people of Pocatello, Idaho have found themselves in a frosty conundrum, with air pollution sparking a seemingly arctic attraction to ice baths. Our research has uncovered a correlation so strong, it's colder than a polar bear's toenails. The statistical evidence leaves little room for doubt – it's as clear as ice that when the air quality goes downhill, the search for a chilly soak goes uphill. This correlation is as solid as, well, ice – and it's no mere fluke, but a bona fide snowball effect.

We've unraveled a snowstorm of statistical significance, with a correlation coefficient so robust, you'd think it had been bench pressing glaciers. The r-squared value adds another layer of frost to the findings, suggesting that around 80% of the variation in 'ice bath' searches can be explained by changes in air pollution. It's like the air pollution is whispering, "Hey there, feeling a bit choked up? Why not take a refreshing dip in some frosty water?" And don't even get me started on the p-value – it's rarer than a snow leopard in the Sahara.

We present these findings with a mixture of bewilderment and delight, much like stumbling upon a yeti in a snowstorm. It's a reminder that in the face of environmental adversity, the human propensity for unexpected solutions can be as refreshing as an unexpected snow day. But fear not, we've cracked this icy case wide open, and it's time to let it go – no need for further research in this area. We've frozen this correlation in time, and it's as clear as an ice castle on a winter's day.

