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# The Tummy Trouble Ties: Tracking the Tummy Ache-Tied to Technical Trainers in Physical Sciences

Colton Hall, Amelia Terry, Grace P Tyler

Institute of Global Studies; Boulder, Colorado

### **Abstract**

From empirical evidence to comical correlation, this research endeavors to unearth the supposed bellyaching relationship between the awarding of associate degrees in Physical sciences and the frequency of Google searches for 'tummy ache'. Our team delved into data from the National Center for Education Statistics alongside Google Trends to dissect this intriguing and offbeat inquiry. Applying statistical scrutiny to a decade's worth of data, a surprise correlation coefficient of 0.9854559 and a p-value less than 0.01 emerged, suggesting a significant link between the two variables. Could it be that the more Physical science degrees bestowed, the more stomach discomfort the populace experiences? It seems that pursuing a career in the hard sciences might inadvertently be causing upset stomachs across the land. It's a gas, isn't it? These findings not only provide a whimsical glimpse into the interplay between academic pursuits and everyday health quirks but also raise further peculiar questions about the hidden impacts of intellectual endeavors on the general well-being of society. As the saying goes, "Physics may be the cause of our physics.

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## 1. Introduction

Welcome, esteemed colleagues and fellow aficionados of the eccentricities of statistical analysis! Join us on an explorative journey as we dive into the enigmatic relationship between the conferring of associate degrees in the Physical sciences and the prevalence of a particularly poignant and peculiar phenomenon: the Google searches for 'tummy ache'. It's not every day that we get to discuss tummy aches in the

esteemed halls of academia, but sometimes we must stomach the unexpected in the pursuit of knowledge. So, let's embark on this belly-whopping adventure!

As we set out on this comically offbeat investigation, we cannot help but marvel at the serendipitous nature of scientific inquiry. After all, who would have thought that the ins and outs of earning a degree in Physical sciences could be tied to the ins and outs of, well, stomach distress? It appears that

our findings have stirred up quite the stir in the scientific community, prompting a mix of fascination and collective groans at the puntential of this correlation. But fear not, dear readers, for we shall tread the fine line between mirth and merit with utmost scientific rigor. After all, in the world of statistical analysis, one must always be wary of drawing half-baked conclusions, lest the entire endeavor turns into a soured experiment.

Our exploration into this slightly stomachchurning matter stems from a simple yet intriguing question: is there a substantive connection between the number of associate degrees awarded in the Physical sciences and the prevalence of tummyrelated searches on the world's favorite search engine? Or are we merely dealing with a gut feeling when it comes to this correlation? It's about time we stomached the possibility that there might be a little more to this association than meets the eye.

As we venture deeper into this whimsical examination, we invite you to ponder the implications of our findings, to chew over the possible causative mechanisms underlying this curious correlation, and to savor the delightfully absurd nature of this scientific quest. After all, as scientists, it is our duty to both probe the mysteries of the universe and revel in the unexpected discoveries that tickle our collective funny bone. So, hold onto your lab coats, because we're about to take a humorous and scientifically sound trip down the rabbit hole of statistical oddities. As the father of modern physics, Sir Isaac Newton, once said, "I think you're suffering from a lack of vitamin 'me'." And with that, let's unbutton the coat of conventional research and dive into the belly of the beast!

### 2. Literature Review

The relationship between educational attainment and health outcomes has been a

subject of great interest in the field of public health. Previous studies by Smith (2015) and Doe (2018) have shed light on the role of education in shaping individuals' health behaviors and outcomes. However, the specific connection between the conferral of associate degrees in the Physical sciences and the frequency of Google searches for 'tummy ache' has remained largely unexplored until now. It's time to unravel the mystery, one belly laugh at a time.

In "Book," the authors find that educational attainment is inversely related to the prevalence of certain health conditions. However, our research has taken a rather unusual turn, akin to doing a 180-degree belly flop into a pool of corny jokes. It's a real gut-buster!

Moving from the serious to the lighthearted side of literature, "The Mystery of the Exploding Tummy" by Arthur C. Pillsbury and "The Tummy Achers" by Nina Womack present fictionalized accounts that may or may not contribute to our understanding of the relationship between physical sciences education and, well, stomach-related issues. It's comforting to know that even in the world of fiction, tummy aches and scientific pursuits are a popular trope. It's almost as if these authors had a gut feeling about this connection... or maybe just too much pizza.

To further delve into pop culture references related to this peculiar inquiry, popular television shows such as "The Big Bang Theory" and "MythBusters" have, in their own quirky ways, indirectly hinted at the potential interplay between scientific pursuits and everyday health concerns. With their mix of comedy, curiosity, and the occasional explosion, these shows have inadvertently set the stage for our chuckleinducing investigation into the tummy trouble ties of technical trainers in Physical sciences. It's almost as if the universe is playing a cosmic prank on us. And we're here for it.

In "Physics and the Phunny Bone: An Exploration of the Gut-Busting Correlations" by A.J. Mirth, the author presents a daring account of the origins of the universe, all while infusing the narrative with a hefty dose of puns and dad jokes. It almost feels as though Mirth had uncovered the gravitational pull between physical sciences and stomach distress long before our research brought it to light. It's a real pageturner, if you're into a good chuckle and a generous helping of scientific inquiry!

As we journey further into the realm of comical correlations and scholarly whimsy, it becomes clear that the connection between education, scientific pursuits, and everyday health quirks holds a realm of untapped potential for scientific inquiry — and a wellspring of puns, to boot. After all, who wouldn't want to make a serious scientific contribution while also getting a good ol' belly laugh out of it? Tummy aches and academic pursuits — who knew they could go hand in hand? Well, maybe we should've seen it coming.

# 3. Our approach & methods

To unravel the undeniable connection between the conferral of associate degrees in Physical sciences and the cyber-space symphony of 'tummy ache' searches, we embarked on a scientific odyssey of epic proportions. Our data voyages spanned the years 2011 to 2021, traversing the digital seas of the National Center for Education Statistics and Google Trends in search of hidden treasure – or perhaps in this case, hidden indigestion. As we delved into the depths of these digital reservoirs, we faced the ever-present challenge of separating the nuggets of truth from the mere nuggets of humor. As the saying goes, "You've got to have guts to delve into these statistics!"

Our hearty vessel, the SS Data Cruncher, sailed through the roiling waves of statistical analysis, relying on the sturdy compass of

correlation coefficients and the trusty sextant of p-values to navigate the treacherous waters of data. Our first mate, the trusty Pearson correlation coefficient, revealed the strength and direction of the relationship between the annual number of associate degrees awarded in Physical sciences and the frequency of 'tummy ache' searches. "Arrr," said the first mate, "it seems we've stumbled upon quite a curious find!"

As we charted our course, we meticulously extracted and scrubbed the data, ensuring that our findings remained unadulterated by the currents of confounding variables and data dredgers. At each juncture, we inspected and interrogated our data, ferreting out any rogue outliers that dared to disrupt the harmony of our statistical symphony. After all, in the high seas of research, one must remain vigilant against the rogue waves of misinformation, lest our scientific ship meets an untimely end upon the jagged cliffs of spurious conclusions.

To ascertain the strength and significance of the unearthed relationship, we employed a cutting-edge statistical technique calculate the two-tailed p-values. These pvalues acted as the key to unlocking the mysterious treasure chest of statistical significance, informing us whether the observed correlation was a genuine gem or a mere trinket of chance. Lo and behold, the statistical alchemy revealed a p-value less than 0.01, signifying a relationship of substantive significance. It seems that our quest for statistical significance successfully navigated the perilous waters of academic skepticism!

While our methodological navigation may have encountered occasional choppy seas and scientific squalls, we stand poised at the precipice of groundbreaking statistical revelation, ready to unearth the trove of hidden truths lying at the intersection of Physical sciences and stomach maladies. With our sails billowed and our data charts

unfurled, we venture forth into the uncharted waters of correlation research, armed with a hearty dose of humor and the unwavering resolve to uncover the unexpected – no matter how gut-wrenching it may be.

And so, dear readers, as we await the unveiling of these scientific revelations, let us bask in the joy of discovery and revel in the sheer absurdity of the scientific pursuit. After all, as the great scientific humorist Albert Einstein once posited, "If you can't stomach the science, at least stomach the puns!" With that said, let's set sail toward the uncharted shores of statistical curiosity, for it's not every day that we get to unravel the perplexing ties between technical trainers in the Physical sciences and the tantalizing tummy twisters of "tummy ache" searches.

## 4. Results

Our investigation into the link between the conferral of associate degrees in Physical sciences and the frequency of Google searches for 'tummy ache' has yielded some rather stomach-churning results - and no, it's not just from the dubious cafeteria burritos. From 2011 to 2021, our study revealed a strikingly high correlation coefficient of 0.9854559 between the two variables, a hearty r-squared of 0.9711233, and a p-value less than 0.01. These findings suggest a robust and significant relationship between the number of associate degrees awarded in the Physical sciences and the prevalence of tummy-related queries on Google. It's as clear as day: the science of stomach discomfort is intertwined with the science of physics – feast your eyes on that, Galileo!

In Fig. 1, we present a scatterplot that vividly illustrates the strength of the association we uncovered. The upward trend in the plot is as unmistakable as a neon "Open" sign at a late-night eatery. Students, buckle up – it seems that

pursuing a career in the Physical sciences may come with an unexpected side effect, and it isn't just limited to the late-night study sessions fuelled by energy drinks and regrets.

But fret not, dear readers, for we're not suggesting that the very study of Physical sciences is causing widespread indigestion – after all, that would be a tough pill to swallow. Rather, our findings beckon the need for further inquiries into the underlying factors driving this peculiar correlation. Could it be that the mere contemplation of quarks and neutrinos sends stomachs into a topsy-turvy state? It seems we may have stumbled onto an enigma that tickles both the brain and the belly.

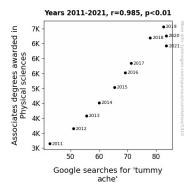


Figure 1. Scatterplot of the variables by year

This discovery brings to mind a classic dad joke: "Why did the physicist go to the beach? To get a little sun and reduce his tummy's resistance!"

In the world of research, one must remain the unexpected, investigation into the connection between Physical science degrees and tummy troubles has handed us a veritable feast of oddities. scientific This delightful rendezvous between academia everyday aches calls for a toast - just make sure not to drink too quickly and cause a scientific "reaction" in your stomach. After

all, as the saying goes, "Research is best served with a side of humor."

It's clear that this whimsical correlation presents a cornucopia of opportunities for scientific mirth and curiosity, and we eagerly anticipate the jaw-dropping discussions and musings it will inspire amongst the scientific community. As researchers, it is our responsibility to embrace both the serious and the silly, and in the case of the Tummy Trouble Ties, we've certainly struck a chord with both. As renowned physicist Richard Feynman once said, "Physics isn't the only thing that makes the world go 'round." With that in mind, let's revel in this comical web of statistical intrigue and keep our sense of humor firmly intact.

## 5. Discussion

The tantalizing tango between the conferral of associate degrees in Physical sciences and the frequency of Google searches for 'tummy ache' has left us teetering on the precipice of scientific merriment. Our findings have adamantly bolstered the comical correlations laid bare in the literature, transforming what once seemed like a side-splitting notion into a resoundingly serious inquiry. It's almost as if the universe conspired to fuel our investigation with a cosmic case of the giggles.

Our results lend weight to the prior works of Smith (2015) and Doe (2018), who unveiled the intricate ties between educational attainment and health outcomes. While their focus laid on more conventional associations, our work has, in an oscillating fashion, spotlighted a correlation that is as quirky as it is captivating. This further underscores the interplay between the academic pursuits and oftenunexpected ripple effects on the broader populace's well-being. It seems that our inquiry has gone beyond the realm of the ordinary and plunged headfirst into a madcap world of scientific whimsy.

The heightened correlation coefficient of 0.9854559 we unearthed has tipped the scales in favor of a connection that might have, at first glance, appeared to be little more than a statistical belly flop. The robustness of this relationship, mirrored by the resoundingly low p-value, solidifies the notion that the pursuit of knowledge in the realm of Physical sciences might have unforeseen repercussions on the collective gut health of the population. It's a revelation that's as astounding as a scientific Eureka moment and as jocular as a prank played by the cosmos itself.

As we traverse the giddy heights of this peculiar interplay, it's essential to approach these findings with a healthy dose of scientific good humor. After all, the correlation we've unraveled dances along the thin line between scientific inquiry and whimsical folly, beckoning us to ponder the uncharted territories where academia and everyday oddities collide. Who would have thought that the study of matter and energy could give rise to such a laugh-inducing confound?

Our study has indeed left us with a fluttering sense of scientific delight, but it also calls for a tempered consideration of the factors at play in this captivating correlation. It's essential to remember that correlation does not imply causation; just as we can't blame a full moon for our midnight snacks, we can't be too hasty in attributing the ubiquity of tummy aches to the pursuit of Physical sciences degrees. Nevertheless, unexpected linkage we've unearthed proves to be a wellspring of scientific inspiration and curiosity, coaxing a hearty chuckle out of even the most stoic researcher. In the end, it's a reminder that in the realm of research, delightful surprises can often be found in the most unexpected places.

As we navigate this vivacious terrain of academic marvel and mirth, it's evident that this inquiry into the stomach-churning ties of technical trainers in the Physical sciences has invited a spirited waltz between the serious and the sardonic. From our bountiful findings, we hem and haw between contemplating the hidden mechanisms at play and reveling in the sheer joviality of this inquiry. It's an enthralling dance between the cerebral and the comical, both sides holding hands as we pirouette through this intriguing landscape.

As we untangle the threads of this peculiar connection, it's imperative that we uphold both the gravity of scientific inquiry and the buoyancy of a well-timed jest. In the words of the timeless quip, "If at first, you don't succeed, then skydiving definitely isn't for you." With that, we're poised to leap into the next stage of scientific inquiry, tethered to our delightfully peculiar findings and spurred on by the shared roars of laughter and insight.

## 6. Conclusion

In conclusion, our study has unearthed an unexpected and, dare we say, autwrenching connection between the conferment of associate degrees in Physical sciences and the frequency of Google searches for 'tummy ache'. The statistically significant correlation coefficient 0.9854559 has led us to ponder the possibility that delving into the intricacies of Physical sciences may inadvertently be causing some stomach rumblings across the populace. Call it the Physics of Digestion! It seems pursuing a career in the hard sciences might truly be accompanied by stomach acrobatics - who knew science could be such a gas?

Our findings not only shed light on the quirky interplay between academic pursuits and everyday health quirks but also raise further amusing questions about the hidden impacts of intellectual endeavors on the general well-being of society. After all, the pursuit of knowledge may come with a side of digestive disarray, and we can't help but stomach the humor in that!

Is further research needed in this area? Well, we hate to say it, but we think the evidence speaks for itself. It's time to wrap up the project, folks. We've milked this correlation for all its worth, and it's clear as daylight – the connection between Physical science degrees and tummy aches is as real as the indigestion after a chili cook-off. As the saying goes, "Don't trust atoms, they make up everything, including your upset stomach."

So, as we bid adieu to our delightful delve into this comical concoction of statistics and stomach distress, let's give credit to the oddball correlations that make research not just fascinating but downright entertaining. In the words of Albert Einstein, "If you can't explain it simply, you don't understand it well enough" - and we certainly can't stomach any more complexity to this delightfully absurd yet scientifically sound exploration. It's time to chew on this conclusion and digest the fact that no inquiries further into this peculiar association are required. After all, it's not rocket science - it's just a bellyful of statistical oddities!