The curious life of dental myths: why stories outlive science

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INTRODUCTION

Somewhere in every family, there is an expert.

Not necessarily a doctor or a dentist, but someone who possesses remarkable confidence in matters of health. They know that aspirin belongs directly on an aching tooth. They are certain that pregnancy steals calcium from teeth. They have no doubt that "soft teeth" run in the family. And should you question these truths, they will often lean forward and utter the most powerful words in all of medicine:

"It worked for me."

Dentists encounter these stories almost daily. Some are charming, others perplexing, and a few have demonstrated extraordinary resilience despite decades of scientific progress. Yet perhaps we should resist the temptation to dismiss them too quickly. For myths are not simply errors waiting to be corrected. They are stories, and stories have accompanied human beings long before textbooks, clinical guidelines, and systematic reviews entered the scene.

Indeed, every profession has its folklore, and dentistry is no exception. The characters may change, the remedies may evolve, and the village elder dispensing wisdom may now appear through a smartphone rather than over a garden fence, but the underlying impulse remains remarkably constant. Human beings have always sought explanations that are memorable, comforting, and easy to share.

Perhaps that is because people do not experience life through p-values and confidence intervals. They experience it through conversations, anecdotes, and stories. And while science is extraordinarily good at explaining the world, stories have always been rather better at travelling through it. Which may explain why, despite all our technological advances and scientific sophistication, generations of dentists continue to hear one timeless diagnosis, delivered with complete conviction:

"Doctor, I think I just have soft teeth."

Every profession has its folklore

Long before Google, YouTube, and TikTok, patients arrived carrying stories.

Every dentist has heard them. Some are passed down through generations with remarkable confidence. Others emerge from neighbours, grandparents, colleagues, or that mysterious relative who seems to possess unwavering certainty on every medical subject imaginable. Somewhere in nearly every family, there is someone who knows that aspirin should be placed directly on an aching tooth, that pregnancy "steals calcium" from teeth, or that unfortunate dental problems are simply the result of having inherited "soft teeth."

Dentists sometimes regard these ideas with quiet amusement. Yet perhaps we should resist the temptation to dismiss them too quickly. Every profession, after all, has its folklore.

Long before scientific journals and evidence-based guidelines, human beings understood illness through stories. They attributed toothache to worms, disease to imbalances of mysterious forces, and remedies to the wisdom of family traditions. These explanations may not always have been correct, but they served an important purpose: they transformed uncertainty into something understandable. Stories, unlike pathology, are easier to carry.

And perhaps this explains why myths are so remarkably durable. Patients rarely inherit misinformation. More often, they inherit narratives. A grandmother's remedy, a parent's experience, or an uncle's certainty becomes woven into family memory and repeated with affection and conviction. Science evolves. Stories are handed down.

The truth is that dentistry itself has always existed alongside folklore. The materials have changed, the technologies have advanced, and the storytellers have evolved, but human nature has remained surprisingly constant. People do not merely seek explanations. They seek meaning. And meaning, more often than not, arrives in the form of stories. Which may explain why, after all these years, so many consultations still begin with a sentence every dentist recognises immediately:

"Doctor, I think I just have soft teeth."

Soft teeth, charcoal, and coconut oil

Among the many mysteries patients bring into the surgery, few are as enduring or as confidently delivered as the declaration, "Doctor, I have soft teeth."

It is a fascinating diagnosis because it is rarely based on biology and almost always based on experience. A mother had dentures early. An uncle lost several teeth. A sibling needed numerous fillings. Somewhere along the line, a family narrative emerged, and over time it acquired the status of inherited truth. To the patient, it often feels less like a theory and more like destiny.

Then there are the remedies. Aspirin placed directly on an aching tooth. Clove oil, which at least has a respectable history and some pharmacological merit. Warm salt water, whiskey, bicarbonate of soda, and the occasional advice to simply "leave it alone and let it settle." More recently, activated charcoal has promised dazzling smiles, while coconut oil has enjoyed a remarkable renaissance through the ancient practice of oil pulling. Lemons, strawberries, hydrogen peroxide, and various internet-inspired concoctions have all enjoyed moments of popularity.

Perhaps the remarkable thing is not that these remedies exist, but that every generation seems to rediscover them. The ingredients change, but the underlying hope remains remarkably constant. Human beings have always sought relief from pain, uncertainty, and vulnerability. Faced with a toothache, few people are inclined to wait patiently for a journal article. Most would rather trust something recommended by a grandmother, a friend, or increasingly, someone speaking confidently into a smartphone.

And confidence, it turns out, is a powerful medicine. A remedy does not need to be correct to be convincing. It merely needs to be memorable, familiar, and accompanied by a story beginning with the timeless words:

"It worked for me."

Perhaps that is why myths survive so effortlessly. They are rarely malicious. More often, they are expressions of hope, handed down from one generation to the next with affection, conviction, and occasionally a teaspoon of coconut oil.

TikTok: The new village elder

For centuries, health advice travelled through families, neighbours, and communities. Every village had its wise aunt, trusted neighbour, or retired gentleman who possessed remarkable confidence and a cure for almost everything. Their qualifications were seldom scrutinised. Their certainty was qualification enough.

In many ways, not much has changed.

Only now, the village elder has acquired millions of followers.

Social media platforms, particularly TikTok, have become extraordinary vehicles for health information. They have democratised knowledge, created communities, and given voice to clinicians and educators who might otherwise never have reached such vast audiences. Some of the finest oral health education available today can be found online, delivered with creativity, humour, and admirable clarity.

But social media has also inherited another ancient human tradition: the confident storyteller.

DIY aligners, miraculous whitening hacks, "veneer checks," tongue-scraping revelations, activated charcoal, and homemade orthodontics all compete for attention in an environment where entertainment and information often occupy the same space. Algorithms, unlike peer reviewers, are not particularly concerned with biological plausibility. Their task is simpler. They reward what is interesting.

And interesting usually travels faster than accurate.

Yet perhaps it is unfair to blame technology alone. Human beings have always gravitated towards compelling stories delivered by people who appear trustworthy. A hundred years ago, it was a neighbour leaning over the garden fence. Today, it may be someone speaking confidently through a ring light.



The storyteller has changed. Human nature has not.

Perhaps the greatest irony is that dentists themselves have joined the conversation. Some have become exceptional communicators, educators, and advocates for oral health. Others have discovered that the internet occasionally rewards confidence more generously than caution.

Which brings us to a rather uncomfortable truth.

The problem with misinformation has never really been that people prefer falsehoods.

It is that stories are simply more memorable than facts.

And no storyteller in history has ever introduced a tale by saying:

"According to a recent systematic review..."

Why stories outlive science

If myths are so frequently wrong, why are they so difficult to eradicate?

The answer may lie not in ignorance, but in human nature itself.

Science is extraordinarily good at explaining the world. It offers evidence, probabilities, confidence intervals, and systematic reviews. But people rarely experience life through confidence intervals. They experience it through stories. We remember anecdotes more readily than statistics, personal experiences more vividly than prevalence data, and emotional narratives more deeply than abstract facts.

This presents dentists with an interesting dilemma. We are trained to communicate scientifically. Patients, however, often listen narratively.

A clinician may explain the aetiology of caries with impeccable accuracy, only to discover that the patient remains more influenced by the neighbour who insists that "our family simply has bad teeth." Not because the neighbour is more knowledgeable, but because stories have something science often lacks: familiarity, emotion, and meaning.

Indeed, facts and stories do not really compete on equal terms. Facts appeal to reason. Stories appeal to identity. And identity is remarkably resistant to correction. Telling someone that a belief is inaccurate is seldom enough to replace it. Human beings do not easily abandon stories that help them make sense of themselves and the world around them.

Perhaps the most enduring myth in healthcare is the belief that facts alone change minds.

Patients rarely remember the details of an explanation involving demineralisation or periodontal attachment loss. They remember conversations. They remember being frightened. They remember being reassured. And above all, they remember what someone they trusted told them.

Which may explain why misinformation can spread so effectively. Falsehoods are not always persuasive because they are convincing. Often, they are persuasive because they are memorable.

Science explains.

Stories persuade.

And perhaps the challenge facing modern healthcare is not merely to provide better evidence, but to tell better stories.

After all, no one has ever sat around a dinner table and captivated their audience with a particularly elegant forest plot.

Perhaps Dentists Need Stories Too

By now, it may be tempting to imagine that myths belong exclusively to patients. But dentists, if we are honest, are not entirely immune to storytelling ourselves.

Every profession develops its own folklore. Certain ideas become accepted truths through repetition, experience, and tradition. Some age remarkably well. Others, viewed through the lens of hindsight, acquire a certain charm. Future generations may well smile affectionately at some of our current certainties, just as we smile at charcoal toothpaste and aspirin placed on aching teeth.

And perhaps that should make us humble.

Because not all stories are myths. Indeed, much of dentistry itself is built upon stories. The frightened child who discovers that the dental chair is not so terrifying after all. The patient whose pain finally disappears after a sleepless week. The embarrassed smile restored after years of self-consciousness. The elderly gentleman who can once again enjoy a meal with his family. Long after probing depths, radiographs, and treatment plans have faded from memory, these are the stories patients carry with them.

Patients rarely quote systematic reviews to one another.

Instead, they say:

"My dentist told me..."

And in those four words lies something profoundly important. Dentists are not merely custodians of evidence. We are interpreters of science and, whether we recognise it or not, storytellers ourselves. Every explanation we offer, every analogy we use, every reassurance we provide is an attempt to transform complexity into understanding.

Perhaps that is why myths have survived for so long. Human beings have always relied upon stories to navigate uncertainty. The task of the modern dentist is therefore not simply to correct myths, but to replace them with narratives that are kinder, clearer, and closer to the truth.

Because science, for all its extraordinary power, does not usually defeat stories.

It simply tells better ones.

CONCLUSION

Perhaps the enduring lesson of dental myths is not that people are irrational, but that they are human.

Human beings have always relied upon stories to navigate uncertainty. Long before evidence-based dentistry, there were family remedies, trusted neighbours, and the reassuring wisdom of those who had "seen it all before." Today, the storytellers may have acquired smartphones and ring lights, but the underlying need remains remarkably unchanged. People still seek explanations that are simple, memorable, and above all, meaningful.

And perhaps dentists should find this less frustrating and more familiar.

After all, we too are beneficiaries of stories. We remember mentors whose advice shaped our careers. We carry lessons handed down through generations of clinicians. We recount remarkable cases, difficult diagnoses, and unforgettable patients. No profession is built entirely upon data. Even science advances through narratives—through observations, questions, and the stories we tell ourselves about how the world works.

The challenge, then, is not merely to replace myths with facts. Facts, by themselves, are surprisingly poor travellers. The challenge is to become better storytellers. To explain science with clarity, humility, and compassion. To offer narratives that are not only accurate, but memorable. To understand that patients do not arrive carrying misinformation so much as they arrive carrying inherited wisdom, family history, and the accumulated stories of lives well lived.

And perhaps that is why, after centuries of scientific progress, the consultation remains such a profoundly human encounter. A conversation. A relationship. A story shared between two people, one seeking understanding and the other attempting to provide it.

Because in the end, science rarely triumphs over stories. It simply tells better ones.

And somewhere, many years from now, a patient may be reassuring a worried friend with words that every dentist secretly hopes to hear:

"Don't worry. My dentist told me..."

RECOMMENDED READING

1. Greenhalgh T, Hurwitz B. Narrative based medicine: why study narrative? BMJ. 1999;318(7175):48-50. doi:10.1136/bmj.318.7175.48.
2. Kahneman D. Thinking, Fast and Slow. New York: Farrar, Straus and Giroux; 2011.
3. World Health Organization. Infodemic management: an overview of infodemic management during COVID-19, January 2020-May 2021. Geneva: World Health Organization; 2021. Available from: https://iris.who.int/handle/10665/346652
4. Charon R. Narrative medicine: a model for empathy, reflection, profession, and trust. JAMA. 2001;286(15):1897-1902. doi:10.1001/jama.286.15.1897.

Online CPD in 6 Easy Steps

The Continuing Professional Development (CPD) section provides for twenty general questions and five ethics questions. The section provides members with a valuable source of CPD points whilst also achieving the objective of CPD, to assure continuing education. The importance of continuing professional development should not be underestimated, it is a career-long obligation for practicing professionals.

