

## Masala

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### POPPING ANTIBIOTICS LIKE ANTACIDS

*The Lancet* published an analysis of worldwide antimicrobial resistance<sup>1</sup> by the Antimicrobial Resistance Collaborators. They attribute 1.27 million (12.7 lakh) deaths worldwide in 2019 directly to antibiotic resistance, while in a total of 4.95 million (49.5 lakh) deaths, antibiotic resistance played a major role.

This is a worry in countries such as India, where medicine prescriptions are not controlled, and anyone anywhere can buy any medicine including antibiotics at will. We all know people around us who at the slightest warning of a fever start popping antibiotics, sometimes using old prescriptions given by doctors as a guide, helped in no small part by chemists who are more than happy to dispense and sometimes even advise.

In South Asia alone, the Antimicrobial Resistance Collaborators estimated around 389 000 deaths in 2019 directly to antibiotic resistance and 1.39 million (13.9 lakh) deaths partly due to antibiotic resistance.<sup>1</sup> These are big numbers and most likely an underestimate, given that data collection in countries such as India is always a best guesstimate.

To pop antibiotic pills as if they were mouth fresheners or antacids or painkillers, to be taken whenever you feel like one, without any logic or sense, just adds to the unfolding crisis of increasing resistance to antibiotics and consequent increasing morbidity and mortality.

### LONELINESS AND HEALTH

Loneliness, social isolation and being alone are all often used interchangeably but are not the same. Social isolation *refers to a lack of social contact, which can be objectively quantified (e.g. living alone, without a partnership)*.<sup>2</sup> Loneliness is defined *subjectively as a painfully experienced absence of social contact, belongingness, or a sense of isolation*.<sup>2</sup>

A recent article in *Neurology* by Joel Salinas and colleagues,<sup>3</sup> based on the Framingham cohort showed those who were lonely had an increased risk of dementia over 10 years. Another study that analysed the Gutenberg cohort showed a similar correlation between loneliness and depression, suicidal ideation and poor health behaviour and healthcare utilization.<sup>2</sup>

The extent of social isolation and loneliness varies from country to country and society to society. Interestingly, one study<sup>4</sup> that compared the prevalence of loneliness and its correlation with mortality in low- and middle-income countries (LMICs) found a prevalence of loneliness of 18.3% in India, 3.8% in China and 25.3% to 32.4% in Latin American countries. Except in India, a definite correlation was found between the presence of loneliness and increasing mortality, including in China, despite the low prevalence rate of loneliness. However, there was no obvious reason given for the lack of correlation between loneliness and mortality among Indians. Was it due to cultural differences in the definition or understanding of loneliness? The authors did not explain.

However, Supe Pengpid and Karl Peltzer in an analysis of the LASI (Longitudinal Ageing Study in India) cohort found a definite correlation between loneliness and poor physical and mental health, with a prevalence of 20% of moderate and 13.3% of severe loneliness among 72 262 middle aged and older adults.<sup>5</sup>

While even the young can be lonely, loneliness increases with age, especially as people around us start leaving and dying and we are unable to make new friends or connect with those around us.

And it is not just that. The younger lot, the children and grandchildren and friends also need to make an effort to reach out to those who have recently become socially isolated or alone, especially if they have lost the crutch of a spouse of 4 to 5 decades to ensure that the recently bereaved don't slip away forgotten.

### SUGAR-SWEETENED BEVERAGES

In a *Masala* write-up in 2021,<sup>6</sup> I wrote about the many harms of ultra-processed foods (UPFs). UPFs contain various additives with generous dollops of salt, sugar and fat, which make them extremely tasty, often addictive and difficult to resist ('you can't stop with one' was an advertisement campaign once for a brand of potato chips). Consuming UPFs once in a while is fine, but if they constitute a major part of your daily diet, then they are detrimental to health.

Sugar-sweetened beverages or SSBs fall into the same category. Though there is no universal consensus on the definition of SSBs, all drinks that contain caloric sweeteners such as sucrose, high-fructose corn syrup or fruit juice concentrates come under this category. This includes all forms of colas and similar fizzy drinks, and most packaged fruit juices. Most people are aware that regular consumption of colas is harmful, but many are unaware that fruit juices that come in packages are equally harmful, whether they contain pulp or advertise themselves as real...check the contents on the package and you will realize the problem. The only healthy fruit juice is the one squeezed at home or in front of you at a stall with no added sugar and even then, a whole fruit is better than fruit juice.

A recent review by Vasanti Malik and Frank Hu in *Nature Reviews: Endocrinology*<sup>7</sup> puts together all the research till date on this subject. SSBs are not only associated with increased weight gain and obesity, but also chronic diseases through additional non-obesity related pathways. These include type 2 diabetes mellitus (T2DM), cardiovascular disease, non-alcoholic fatty liver disease (NAFLD), which in turn can lead to cirrhosis, as well as hyperuricaemia and gout and perhaps cancer, with increased mortality.

What about sugar substitutes, also called artificially sweetened beverages (ASBs)? The evidence is conflicting. In the short term, replacing SSBs with ASBs is perhaps a good strategy, similar to replacing cigarette smoking with an electronic nicotine delivery device or a nicotine patch. In the long term, these too are harmful. Just 2–3 days after reading Malik's paper, I chanced upon a recent study on artificial sweeteners headed by Charlotte Debras,<sup>8</sup> which found an increased cancer risk with aspartame and acesulfame-K. You can google for their popular brand names, which are increasingly used by those who want to avoid sugar in their tea and coffee, but still want their beverages sweet. Incidentally, in 2019, the same group published a paper suggesting a causal link between SSBs, including fruit juices and various types of cancer.<sup>9</sup>

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