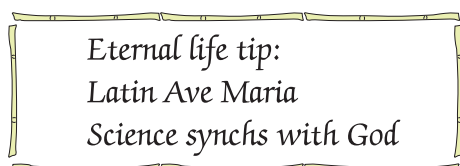


reported,⁸ and mantras may have evolved as a simple device to slow respiration, improve concentration, and induce calm.¹³ Mantras are normally repeated in sequences of more than 100, similar to the rosary (150 times). The relatively long time required to perform the entire sequence is similar to that of modern training sessions for any physical activity. This again suggests that one of the goals could be to induce physical, in addition to psychological, changes.

Owing to the very large number of repetitions of the same prayer, the rosary is unique among prayers of the Christian religion. The rhythm necessarily imposed by these repetitions induces a fixed respiratory rate at a predetermined frequency. In times when stopwatches and metronomes had still to be invented, a rhythmic formula was the easiest way to keep a reasonably accurate timing in the range of several seconds per breath, and thus a good way to learn to slow respiration to a given rate, without the need to concentrate on the respiration itself (body consciousness was not encouraged in the Christian culture of the Middle Ages). There are thus remarkable similarities in the two practices (duration and number of repetitions) and in their cardiovascular effects. The historical circumstances that brought the rosary to Europe also suggest that these similarities were not just coincidence. This practice introduced—consciously or not—a new and previously unrecognised element of oriental health practice into Western culture. The rosary might be viewed as a health practice as well as a religious practice.



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What is already known on this topic

Reduced heart rate variability and baroreflex sensitivity are powerful and independent predictors of poor prognosis in heart disease

Slow breathing enhances heart rate variability and baroreflex sensitivity by synchronising inherent cardiovascular rhythms

What this study adds

Recitation of the rosary, and also of yoga mantras, slowed respiration to almost exactly 6/min, and enhanced heart rate variability and baroreflex sensitivity

The rosary might be viewed as a health practice as well as a religious practice

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Hot air?

"It all started with an enquiry from a nurse," Dr Karl Kruszelnicki told listeners to his science phone-in show on the Triple J radio station in Brisbane. "She wanted to know whether she was contaminating the operating theatre she worked in by quietly farting in the sterile environment during operations, and I realised that I didn't know. But I was determined to find out."

Dr Kruszelnicki then described the method by which he had established whether human flatus was germ-laden, or merely malodorous. "I contacted Luke Tennen, a microbiologist in Canberra, and together we devised an experiment. He asked a colleague to break wind directly onto two Petri dishes from a distance of 5 centimetres, first fully clothed, then with his trousers down. Then he observed what happened. Overnight, the second Petri dish sprouted visible lumps of two types of bacteria that are usually found only in the gut and on the skin. But the flatus which had passed through clothing caused no bacteria to sprout, which suggests that clothing acts as a filter.

"Our deduction is that the enteric zone in the second Petri dish was caused by the flatus itself, and the splatter ring around that was caused by the sheer velocity of the fart, which blew skin bacteria from the cheeks and blasted it onto the dish. It seems, therefore, that flatus can cause infection if the emitter is naked, but not if he or she is clothed. But the results of the experiment should not be considered alarming, because neither type of bacterium is harmful. In fact, they're similar to the 'friendly' bacteria found in yoghurt.

"Our final conclusion? Don't fart naked near food. All right, it's not rocket science. But then again, maybe it is?"

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