

Stop blaming the moon: Study highlights flaws in earlier research on hospital admissions and the lunar cycle

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Full moon. Credit: Sean Brenner

"It must be a full moon" is a common refrain when things appear more hectic than usual.

The moon is even blamed when things get crazy at <u>hospital emergency</u> <u>rooms</u> or birth wards. "Some nurses ascribe the apparent chaos to the



moon, but dozens of studies show that the belief is unfounded," said Jean-Luc Margot, a UCLA professor of planetary astronomy.

Of course, the moon does not influence the timing of human births or hospital admissions, according to new research by Margot that confirms what scientists have known for decades. The study illustrates how intelligent and otherwise reasonable people develop strong <u>beliefs</u> that, to put it politely, are not aligned with reality.

The absence of a lunar influence on human affairs has been demonstrated in the areas of automobile accidents, hospital admissions, surgery outcomes, cancer survival rates, menstruation, births, birth complications, depression, violent behavior, and even criminal activity, Margot writes. His study was published online by the journal *Nursing Research*.

Even though a 40-year-old UCLA study demonstrated that the timing of births does not correlate in any way with the lunar cycle, the belief in a lunar effect has persisted. A 2004 study in a nursing journal, for example, suggested that the full moon influenced the number of <u>hospital</u> <u>admissions</u> in a medical unit in Barcelona, Spain.

But Margot identified multiple flaws in the data collection and analysis of the 2004 research. By re-analyzing the data, he showed that the number of admissions was unrelated to the <u>lunar cycle</u>.

"The moon is innocent," Margot said.

So why do the erroneous beliefs live on in spite of the evidence?

Margot cited what scientists refer to as the "confirmation bias"—people's tendency to interpret information in a way that confirms their beliefs and ignore data that contradict them. When life is hectic on



the day of a full moon, many people remember the association because it confirms their belief. But hectic days that do not correspond with a <u>full</u> <u>moon</u> are promptly ignored and forgotten because they do not reinforce the belief.

Margot said the societal costs of flawed beliefs can be enormous.

In just one current example, the recent measles outbreak appears to have been triggered by parents' questionable beliefs about the safety of the measles vaccine.

"Vaccines are widely and correctly regarded as one of the greatest public health achievements, yet vaccine-preventable diseases are killing people because of beliefs that are out of step with scientific facts," Margot said.

A willingness to engage in evidence-based reasoning and admit that one's beliefs may be incorrect will produce a more accurate view of the world and result in better decision-making, Margot said.

"Perhaps we can start by correcting our delusions about the <u>moon</u>, and work from there," he said.

Provided by University of California, Los Angeles

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