

Men are dying for sex: Mating competition explains excess male mortality

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(PhysOrg.com) -- Men die at higher rates than women across the lifespan. A new study suggests that this excess mortality is the price of reproductive competition.

Researchers have long known that women outlive men on average, and more recently have discovered that men have higher mortality risks across the entire [lifespan](#). University of Michigan researcher Daniel Kruger offers this explanation: It is all about sex.

Women invest more physiologically in reproduction than men, thus men compete with other men for mating partners and try to make themselves attractive to women. This competition leads to strategies that are riskier for men both behaviorally and physiologically, and these result in higher levels of mortality.

"If mating competition is responsible for excess male mortality, then the more mating competition there is, the higher excess male mortality will be," said Kruger, an assistant research professor in the U-M School of Public Health. In the current study, Kruger shows that two factors related to the level of male reproductive competition contribute to higher rates of risk-taking and mortality.

The first factor is polygyny, the social situation in which one man maintains [sexual relations](#) with many women (the opposite is polyandry—one women and many men). Several species of primates show high levels of polygyny, where one dominant male mates with most

of the females in the group, and other males are left out. Human cultures have varying degrees of polygyny, and Kruger found that the more prevalent the practice, the higher the rate of male [mortality](#).

In a polygynous culture, men receive enormous evolutionary benefits from becoming dominant. Those guys get all the gals, almost literally. Non-dominant men are left with few, or none, to choose from. In a polygynous group, winning males reap huge rewards; everyone else gets next to nothing.

The second factor: the degree of [economic inequality](#). In [mate selection](#), men are valued for the resource investment that they can provide, bringing benefits their offspring. The wider the gap between rich and poor, the more likely men are to die young. In less egalitarian societies, a man with what scientists call "resource control"—money, property and economic security—is more likely to find sexual partners.

In both of these cases, there's a yawning gap between climbing to the top of the heap—either as the dominant male or the wealthiest—and falling short. To lose position in polygynous or economically extreme societies is to lose almost any chance at finding a sexual partner.

What's more, Kruger says, these two factors are related, because getting the lion's share of economic wealth is often virtually the same thing as becoming dominant male.

And so the battle to be "king of the hill" turns deadly. When winners take all, men have very little to lose—and a whole lot to gain—by risking everything to get to the top.

Kruger conducts research in the field of evolutionary psychology, the study of how present-day human thinking and behavior has been shaped by past evolutionary adaptations. It turns out that some other [primates](#)

display such winner-take-all behavior, and there's a strong evolutionary reason behind it. By dominating most or all of the sexual encounters in a group, males who are higher on the social and economic ladder are more likely to pass their genes onto the next generation.

The opposite case, Kruger found, also holds true: The more egalitarian a society, and the more devoted to monogamy, the less extreme the risk taking. But no human culture, Kruger concluded, is perfectly free of such competition.

More information: The study appears in the current issue of the journal *Evolutionary Psychology*.
(www.epjournal.net/filestore/ep08194204.pdf)

Provided by University of Michigan

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