Press release

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Women’s Partner Choice: No Changes in Preferences Before Ovulation

Psychological study evaluates 26,000 online diary entries from women. For years researchers have debated how women’s sexual desire changes in the fertile phase and whether women with partners find other men more attractive when fertile. Contrary to previous research results, a recent study by researchers at the Max Planck Institute for Human Development and the University of Goettingen shows that partner preferences don’t change during ovulation. These findings were published in the Journal of Personality and Social Psychology.

As researchers—and virtually all women—know, women’s moods and behavior can change during their menstrual cycle. During the fertile phase of the cycle, hormones such as the estrogen estradiol cause sexual desire to increase. In this context, evolutionary psychologists have proposed the “ovulatory shift hypothesis.” According to this hypothesis, women can optimize their reproductive success by first choosing a reliable partner who is willing to invest in children and family and then, during their fertile phase, seeking a genetically more attractive sexual partner for their offspring. Previous studies on the topic have been criticized for their small samples and methodological flaws. For that reason, this large-scale study aimed at investigating the ovulatory shift hypothesis using a robust study design and a large number of participants. In addition, the scientific predictions, statistical analyses, and the definition of the fertile window were established and registered online before the study began.

Over 1,000 women were asked to keep an anonymous online diary for 35 days. The participants were on average 25.5 years old and all of them were in a heterosexual relationship. In the diary, they provided details on their relationship, their sexual activities in and outside of the relationship, the degree of their sexual desire for their partner or other men, and their flirting behavior. Additionally, they were asked about their perceptions of their own attractiveness, their choice of clothing, and other psychological parameters. Details about their menstrual period made it possible to estimate the day of ovulation for each individual woman.

The data confirmed that women have increased sexual desire before ovulation—albeit equally for their own partner and other men. However, no evidence was observed that women who found their partners less sexually attractive experienced stronger increases in flirting with other men while in the fertile window. Moreover, their self-perceived attractiveness increased during the fertile phase, whereas—unlike in previous smaller studies—no significant changes in dressing style or in behavior were observed.

About 60 percent of the women used hormonal contraceptives that suppressed ovulation. None of the changes mentioned above were observed during their cycle. Sexual desire for their partner and other men remained at a constant level, as did self-perceived attractiveness.

“In 26,000 diary entries we were unable to find any evidence in favor of the ovulatory shift hypothesis. However, we saw signs that some women have large cyclical fluctuations and others only small fluctuations in their sexual desire and self-perception. We would like to understand these individual differences better. Our hope is to comprehend why women who use hormonal contraceptives and thereby suppress their ovulation have varying side-effects,” said Ruben
Arslan, first author of the study and scientific researcher at the Center for Adaptive Rationality at the Max Planck Institute for Human Development. In order to answer these questions, further studies are planned in which women are questioned for an even longer period of time. To that end a collaboration with a tracking app for menstrual cycles is in planning, which would enable evaluating data from hundreds of thousands of women over many years.

original publication:

Max Planck Institute for Human Development
The Max Planck Institute for Human Development in Berlin was founded in 1963. It is an interdisciplinary research institution dedicated to the study of human development and education. The Institute belongs to the Max Planck Society for the Advancement of Science, one of the leading organizations for basic research in Europe.