

Happy in marriage? Genetics may play a role

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Credit: Jeff Belmonte / Wikipedia

People fall in love for many reasons—similar interests, physical attraction, and shared values among them. But if they marry and stay together, their long-term happiness may depend on their individual genes or those of their spouse, says a new study led by Yale School of Public Health researchers.

Published in the journal *PLOS ONE*, the study examined the role of a <u>genetic variation</u> that affects oxytocin, a hormone that plays a role in social bonding.

Lead author Joan Monin, associate professor at the Yale School of Public Health, and her team studied 178 married couples ranging in age from 37 to 90 years old. Each participant completed a survey about their feelings of marital security and satisfaction, and also provided a saliva sample for genotyping.

The research team found that when at least one partner had a genetic variation known as the GG

genotype within the oxytocin gene receptor, the couple reported significantly greater marital satisfaction and feelings of security within their marriage. Those couples had greater satisfaction compared with other couples who had different genotypes.

While the oxytocin receptor variant, OXTR rs53576, has been previously studied and linked to personality traits such as emotional stability, empathy, and sociability, the new study is believed to be the first to examine its role in marital satisfaction.

"This study shows that how we feel in our close relationships is influenced by more than just our shared experiences with our partners over time," said Monin. "In marriage, people are also influenced by their own and their partner's genetic predispositions."

The researchers also found that people with the GG genotype reported less anxious attachment in their marriage, which also benefitted their relationship. Anxious attachment is a style of relationship insecurity that develops from past experiences with close family members and partners over the life course, and is associated with diminished self-worth, high rejection sensitivity, and approval-seeking behavior, said Monin.

The researchers said that an individual's GG genotype and their partner's GG genotype together account for about 4% of the variance of marital satisfaction. Although this percentage is small, it is a significant influence considering other genetic and environmental factors to which couples are exposed.

The study findings may lead to future studies to examine how couples' genotypes interact to influence relationship outcomes over time. Another important future direction for study will be to examine how the OXTR rs53576 variant interacts



with specific negative and positive relationship experiences to influence <u>relationship</u> quality over time in a large representative sample of married couples, said Monin.

Provided by Yale University

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