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Genetic and environmental influences on marital quality: examining age, country and construct differences

Briana Horwitz, The California State University, Fullerton; Kristine Marceau; Brown University and Rhode Island Hospital; Jenae Neiderhiser, The Pennsylvania State University; iGEMS Consortium; Karolinska Institutet

Twin and sibling studies have consistently found genetic influences on measures of family relationships. The bulk of this research, however, has focused on parent-child relationships. There have also been a handful of studies examining genetic and environmental influences on constructs related to marriage like pair bonding, marital status, and marital quality. Only two different samples have been used to examine the more relationship-focused construct of marital quality, reporting a modest, but significant genetic influence on marital quality with the bulk of the variance explained by nonshared environmental influences. Using the IGEMS consortium of studies, this paper will conduct one of the most comprehensive examinations of genetic and environmental influences on marital quality to date using four large twin samples from three countries.

Of the 10 samples that comprise the IGEMS consortium, four collected data on marital quality: FinnTwin16 (Finland), MIDUS (US), VETSA (US), and TOSS (Sweden). The two US studies used the same measure which indexes empathy and criticism. The measures used in the FinnTwin16 and TOSS were combined into an overall marital quality composite. Twin correlations indicate that for marital quality in both TOSS and FinnTwin16 there are modest genetic influences with most of the variance due to nonshared environmental influences ($r_{MZ} = .33$ and $.28$ and $r_{DZ} = .15$ and $.12$, respectively). For VETSA and MIDUS, there are some differences across samples. Specifically, VETSA indicates only nonshared environmental influences for empathy ($r = -.03$ and $.10$ for MZ and DZ) and mostly nonshared environmental influences for criticism ($r = .19$ and $-.03$ for MZ and DZ). For MIDUS, genetic and nonshared environmental influences are indicated for both empathy ($r = .24$ and $.001$ for MZ and DZ) and criticism ($r = .30$, $.003$ for MZ and DZ).

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