What this research is about

Gambling behaviours tend to increase as youth become young adults. Twin studies allow researchers to examine the roles of genes and the environment in the development of gambling behaviours. Twin studies compare identical (i.e., share 100% of genes) and fraternal (i.e., share 50% of genes) twins. They also consider environmental factors that are common to twins (shared) and environmental factors that are unique to each twin (non-shared). Shared environments include parenting styles and neighbourhoods. Non-shared environments include different friend groups and different teachers.

There have been few studies that examine the genetic and environmental influences on gambling behaviours when people move from late adolescence into young adulthood. The current twin study explored these influences on gambling behaviours during this time period.

What the researcher did

The researchers used data from the Minnesota Twin Family Study. This study followed twin pairs over time from age 11 to age 29. It administered a Gambling Survey to the twins when they were 18 and 25. A total of 1191 twins completed the survey at age 18, and 1250 twins completed the survey at age 25. For this study, the researchers included twins who had participated at both ages. The Gambling Survey assessed 4 gambling behaviours at each age:

1. The maximum number of times a participant engaged in 10 different gambling activities in the last 12 months (“max frequency”);

2. The average number of times a participant engaged in all 10 gambling activities (“typical frequency”);

3. The maximum amount of money lost in a single day (“max amount”); and

4. The number of problem gambling symptoms (out of 12; “problem behaviour”).

The researchers determined the genetic and environmental contributions to each gambling behaviour, separately for males and females at ages 18 and 25.

What the researcher found

At age 18, 68% of participants reported that they had gambled. This increased to 76% of participants at age 25.
25. For all gambling behaviours, men scored higher than women. Gambling behaviours were stable between ages 18 and 25, except for “max amount” which increased with age. In other words, participants lost more money to gambling at age 25 compared to age 18. Identical twins reported more similar gambling behaviours than fraternal twins. This suggests a moderate degree of genetic influence at both ages 18 and 25.

Shared genetic and environmental factors contributed similarly to gambling behaviours in men and women. The influence of genes on gambling behaviours increased from 21% at age 18 to 57% at age 25. This suggests that as individuals move from late adolescence to early adulthood, genetic influence becomes more important. The influence of shared environmental factors decreased from 55% at age 18 to 10% at age 25. The influence of non-shared environmental factors was modest and remained stable at both ages.

How you can use this research

This study suggests that researchers should aim to identify the specific genes or environments related to youth gambling. This may help clinicians and treatment providers target prevention efforts to those most at-risk for developing gambling problems. Also, researchers should aim to isolate the non-shared environmental factors that influence gambling behaviours, such as peer gambling involvement and access to gambling venues. This may help public health to design more effective prevention efforts for at-risk youth.

About the Researcher

Serena M. King belongs to the Department of Psychology at Hamline University, Minnesota. Margaret Keyes, Matt McGue, and William G. Iacono belong to the Department of Psychology at the University of Minnesota. Ken C. Winters belongs to the Oregon Research Institute. To contact the researchers about this study, please write to Serena M. King at sking02@hamline.edu.

Citation


Keywords

Gambling, genetics, longitudinal, twins, young adulthood

Gambling Research Exchange Ontario (GREO)

Gambling Research Exchange Ontario (GREO) has partnered with the Knowledge Mobilization Unit at York University to produce Research Snapshots. GREO is an independent knowledge translation and exchange organization that aims to eliminate harm from gambling. Our goal is to support evidence-informed decision making in responsible gambling policies, standards and practices. The work we do is intended for researchers, policy makers, gambling regulators and operators, and treatment and prevention service providers.

Learn more about GREO by visiting greo.ca or emailing info@greo.ca.