

Risk and cause of death of people who experienced gambling disorder in a nationwide study in Taiwan

What this research is about

Gambling disorder (GD) is an addictive disorder where people cannot stop gambling, even though it leads to serious harm. GD has been linked to higher risks of suicidal thoughts and suicide. However, there is not much research on all-cause and cause-specific mortality among people with GD, especially in Asian populations. All-cause mortality refers to deaths from any reason in a population over a given period, while cause-specific mortality refers to deaths from a specific cause. This study investigated the link between GD and all-cause and cause-specific mortality in a Taiwanese population.

What the researchers did

The researchers analyzed data from Taiwan's National Health Insurance Research Database (NHIRD) for the years 2000–2022. The researchers identified 961 patients with psychiatrist-diagnosed GD that was recorded on two separate clinical visits between January 2001 and December 2021. They created a matched control cohort by including four randomly selected people without a diagnosis of GD for every GD case from the NHIRD database. People in the control cohort were matched to the GD cases in terms of sex and age. There were 3,844 people in the control cohort.

The researchers also created a sibling cohort to take into account the influence of shared genetics and early-life environmental factors. The sibling cohort included all 675 siblings of 457 GD cases who shared at least one biological parent, did not have GD themselves, and were listed in the NHIRD database.

What you need to know

The aim of this study was to investigate the link between gambling disorder (GD) and all-cause and cause-specific mortality in a Taiwanese population. The researchers analyzed data from Taiwan's National Health Insurance Research Database (NHIRD) from 2000 to 2022. A total of 961 patients with psychiatrist-diagnosed GD were identified. An age- and sex-matched control cohort consisting of 3,844 people without GD and a sibling cohort consisting of 675 siblings without GD who shared at least one biological parent were also identified.

Compared to their matched controls, patients experiencing GD had a higher risk of all-cause mortality, driven by a higher risk of death from unnatural causes, especially suicides. There were similar results when patients experiencing GD were compared to their siblings without GD.

All participants were followed from the date they were diagnosed with GD (for the GD cases and their matched controls) or were first included in the database (sibling cohort) until their death or 31 December 2022.

The researchers used data from the NHIRD Cause of Death Registry to examine all-cause mortality. They identified underlying causes of death, divided into natural or unnatural categories. Unnatural causes of death included accidental deaths and suicides. The researchers took into account the effects of demographic factors (age, sex, income level, urbanization of residential location) and co-occurring psychiatric and medical conditions.

What the researchers found

On average, patients with GD were first diagnosed when they were around 40 years old. Most of the GD patients (85%) were male. The average follow-up time was 7.6 years for GD patients and 7.7 years for the matched controls. Compared to their matched controls, GD patients were more likely to have other psychiatric conditions. For example, about 63% of GD patients had depressive disorders and 38% had anxiety disorders, compared to 9% and 8%, respectively, for the matched controls. Similar results were obtained when compared to the sibling cohort.

Over the follow-up period, there were 65 deaths (7%) among GD patients and 169 deaths (4%) among the matched controls. There were 9 deaths (1.3%) among siblings who did not have GD versus 17 deaths (3.7%) among siblings who had GD.

GD patients had a higher risk of all-cause mortality compared to their matched controls. But this result was not statistically significant after adjusting for demographic characteristics and other psychiatric and medical conditions. The higher risk of mortality among GD patients was driven by a higher risk of death from unnatural causes, especially suicides. Although the risk of accidental deaths was also higher for GD patients, it was not statistically significant. On the other hand, patients with GD were less likely to die from natural causes.

A similar pattern was observed when compared to siblings with GD. Patients with GD showed a higher risk of all-cause mortality compared to their siblings without GD. But after controlling for demographic characteristics and other health conditions, patients with GD showed only a higher risk of death from unnatural causes. Risk of death from natural causes was lower, but this was not statistically significant.

How you can use this research

The findings from this study can inform suicide prevention policies and interventions.

About the researchers

Yang-Chieh Brian Chen is affiliated with the Department of Psychiatry and Behavioral Sciences at the University of Texas Health Science Center at Houston in Houston, TX, USA. **Chih-Wei Hsu** is

affiliated with the Department of Psychiatry at Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine in Kaohsiung, Taiwan. **Liang-Jen Wang** is affiliated with the Department of Child and Adolescent Psychiatry at Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine in Kaohsiung, Taiwan. **Mu-Hong Chen** is affiliated with the Department of Psychiatry at Taipei Veterans General Hospital in Taipei, Taiwan. **Yao-Hsu Yang** is affiliated with the Department of Traditional Chinese Medicine at Chang Gung Memorial Hospital in Chiayi, Taiwan. **Chih-Sung Liang** is affiliated with the Department of Psychiatry, Beitou Branch, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan. **Edward Chia-Cheng Lai** is affiliated with the School of Pharmacy, Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan, Taiwan. Please see the original article for more information on author affiliations. For more information about this study, please contact Chih-Wei Hsu at harwicacademia@gmail.com.

Citation

Chen, Y. C. B., Hsu, C. W., Wang, L. J., Chen, M. H., Yang, Y. H., Liang, C. S., & Lai, E. C. C. (2026). All-cause and cause-specific mortality in gambling disorder: Evidence from a nation-wide matched and sibling cohort study in Taiwan. *Addiction*. 121(8): 2225–2233. <https://doi.org/10.1111/add.70397>

Study Funding

This study was funded by grants from the Taiwan National Science and Technology Council.

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