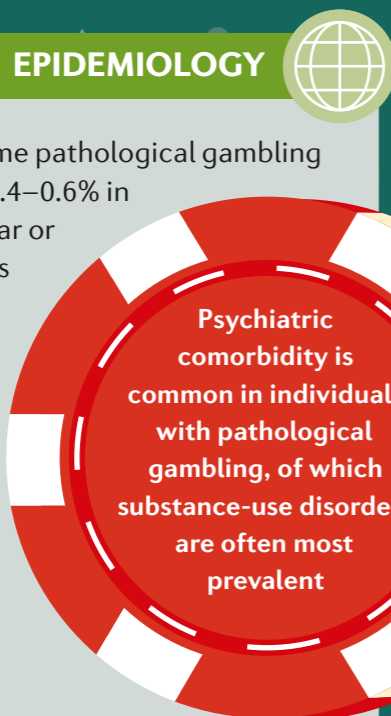


For the Primer, visit doi:10.1038/s41572-019-0099-7

➔ **Gambling disorder (GD), previously called pathological gambling, is a mental health condition that is characterized by persistent, recurrent gambling that is associated with distress and impairment.**

EPIDEMIOLOGY

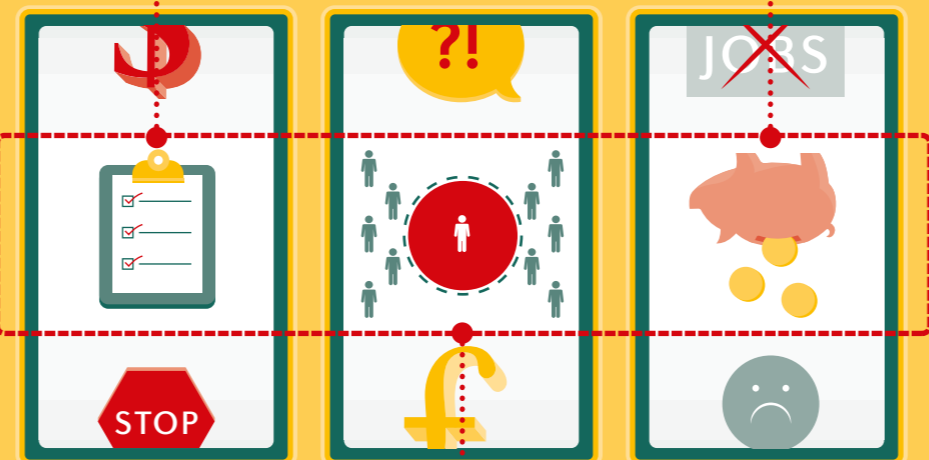
The prevalence of lifetime pathological gambling has been estimated at 0.4–0.6% in the United States. Similar or slightly higher estimates have been obtained in the United Kingdom (0.6–0.9%), Australia (0.5–2.0%) and Hong Kong (1.8%). High prevalence estimates have been reported in psychiatric inpatients (6.9%) and individuals with Parkinson disease (2.2–7%).



DIAGNOSIS

GD was the first behavioural addiction included in the Diagnostic and Statistical Manual of Mental Disorders and the International Classification of Diseases

Additional criteria include financial problems associated with gambling, preoccupation with gambling and gambling when distressed



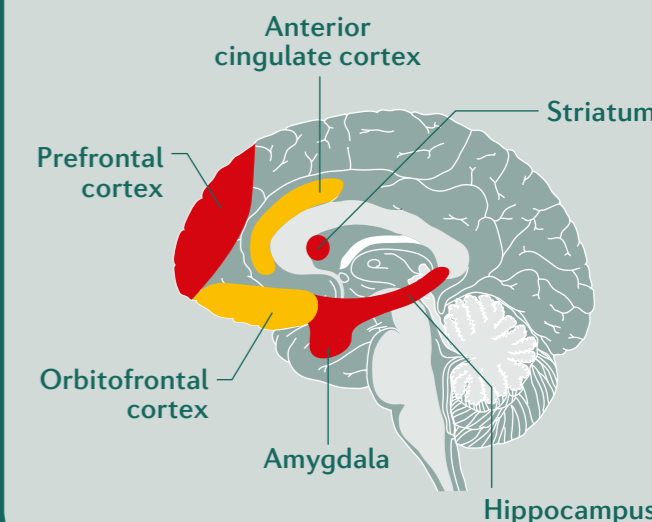
Criteria for GD include mood alterations when stopping gambling, unsuccessful attempts to stop gambling, lying about gambling and loss of relationships or career opportunities owing to gambling

Rx MANAGEMENT

Only ~10% of people with pathological gambling seek treatment or attend self-help groups. Frequently-used intervention treatments for people with pathological gambling include attendance at Gamblers Anonymous, cognitive-behavioural therapy and motivational interviewing. Pharmacological therapy can be used in those with comorbid psychiatric disorders, such as mood stabilizing drugs for individuals with bipolar disorder or selective serotonin reuptake inhibitors for those with other affective disorders.

MECHANISMS

Environmental risk factors for GD include low educational attainment, a history of trauma and psychopathology. Genetic studies are in their infancy, but suggest considerable genetic contributions to GD. Data from neuroimaging studies have been collated into a proposed neurobiological model of GD, which suggests the involvement of the striatum and prefrontal cortex, which have roles in reward processing and decision making, respectively. Other implicated brain regions include the hippocampus, amygdala, insula and anterior cingulate cortex.



PREVENTION

Several strategies have been assessed for the prevention of GD. These strategies include age restrictions, prohibition, limitations on gambling advertising and voluntary self-exclusion from casinos. Additionally, changes such as placing clocks into gambling environments, establishing pre-set time or monetary loss limits, introducing forced breaks in play and removing bank machines (ATMs) from gambling environments have been explored.



QUALITY OF LIFE

GD is associated with psychological distress, marital problems, reductions in academic or occupational achievement, health problems (such as hypertension and insomnia), legal worries and financial issues. Indeed, 92% of individuals who called a gambling helpline reported financial problems.

OUTLOOK

GD treatment is poorly funded and under-researched. Improved funding is necessary to study the aetiology and neurobiology of GD in more detail, to improve access to treatment and to understand changing gambling behaviours owing to the availability of the Internet and Internet-based gambling forms.