

The questions remains: Should these major studies results have an impact on treatment options in psychiatry?

## Symposium: Excessive gambling in a hedonistic society

### S51.01

Pathological, problem and at-risk gambling in German- and Italian-speaking Switzerland assessed with a DSM-IV-based instrument

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The purpose of the study was to assess prevalence rates of pathological, problem and at-risk gambling in German- and Italian-speaking Switzerland in 2007, employing a DSM-IV-based instrument. A random sample of 4997 individuals participated in a computer-assisted telephone interview and 1388 of the individuals who refused to participate on the telephone interview completed a paper questionnaire. The total sample included 6385 participants; the return rate was 52.2%. Among the general population over 18 years of age, 2% engaged in lifetime at-risk gambling, 0.5% in problematic and 0.3% in pathological gambling. We found past-year prevalence rates of 0.7% of at-risk gambling, 0.1% for problematic and 0.02% for pathological gambling. These rates are lower than rates in previous Swiss studies. This may be due to measures to reduce false positive diagnoses such as employing the National Opinion Research Center DSM Screen for Gambling Problems (NODS) instead of the previously used SOGS, an instrument which was found to overestimate prevalence rates in general population up to 50%.

### S51.02

Prevalence of pathological gambling in Switzerland: A replication study

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This survey aimed to evaluate the prevalence of pathological gambling in the Swiss adult population in 2005 and the link between pathological gambling and alcohol abuse. This replication study made it possible to compare the prevalence rates of pathological gambling measured before and after the introduction of casinos and new preventive legislation in Switzerland.

**Method:** Two thousand eight hundred and three telephone interviews were completed using a standardized assessment instrument for identifying problem and pathological gamblers (SOGS) and alcohol abuse (CAGE).

**Results:** In Switzerland, the past year prevalence rates were 0.8% for problem gambling and 0.5% for pathological gambling in 2005. No relationship was found between alcohol abuse and gambling behaviour. The past-year prevalence of problem and pathological gambling did not change between 1998 and 2005.

When comparing the percentage of “problem gamblers” (levels 2 + 3) who probably have an alcohol problem found in 1998 with that found in 2005, results show a statistically significant difference [ $\chi^2=4.1$ ;  $p<.05$ ]. This important change may be related to the fact that slot machines were then present in public bars where alcohol was more readily available, without the controls of the preventive measures implemented in all Swiss casinos after 2002.

**Conclusions:** Despite widespread openings of casinos in Switzerland since 2002, the prevalence estimates of past-year disordered gambling have remained stable.

### S51.03

Prevention of gambling behavior in Switzerland

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**Background and Aim:** The present study addresses the empirical basis for alerting health professionals to potential risk factors for excessive gambling. On the basis of international and Swiss literature on gambling, an explanatory model for the development of gambling problems is developed.

**Hypotheses:** This work is based on the hypothesis that the prediction rule for excessive gambling, based on a sample of the general population and for different types of frequent gambling preferences, differs from the prediction rule for disordered gambling in patients, seeking psychiatric treatment. The goal of this study is, therefore, to contribute to an early identification of disordered gambling behaviour in the general population, as well as in the target group of patients seeking psychiatric treatment.

**Sources of Data:** Various sources of information were analysed separately, in order to develop and test a prediction rule for excessive gambling, namely the 2002 Swiss Health Survey, which is a survey of the general population, involving 19'706 participants, as well as the data of psychiatric patients of the Lausanne/Geneva - region, recruited consecutively from 1996 to 2004 at the Psychiatric Hospital of the University of Lausanne. This patient population comprised a total of 886 patients. Further data from the Centre for Excessive Gambling in Lausanne are presented, covering 105 patients.

**Outcomes:** Results show that indicators of depressive behaviour as well as smoking are good candidates for the early identification of gambling problems. On the basis of these data it is safe to assume that signs of depressive behaviour should encourage health professionals to enquire about gambling problems.

### S51.04

Neurophysiological and neuropsychiatric aspects of pathological gambling

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We will provide a general overview on neurophysiological aspects of pathological gambling, a form of nonsubstance addiction, including evidence that dopamine neurons of the ventral midbrain are activated by reward uncertainty. Dopamine in the state of excessive gambling may reinforce its addictive properties.

In addition, we will present neuropsychological evidence demonstrating that pathological gambling is related to a deficit in impulse control associated with attention deficit that impairs concentration, executive functions, and especially memory. The relationship between anxiety and selective disturbances in the visuo-spatial memory will finally be considered under the point of view of the cognitive competition hypothesis.

Further, we will present our actual project in which we investigate whether these pathological gambling-related deficits will have an influence on spatial memorization capacities as a function of anticipated reward.