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Gambling addiction: an aid from patients' stories

For the first time, new research conducted by SISSA and by the University of Roma Tre identifies narrative markers of gambling addiction and paves the way to innovative approaches for therapy and prevention.

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How do people affected by pathological gambling tell their story? What information can we extract from their narratives? For the first time, a study conducted by SISSA – Scuola Internazionale Superiore di Studi Avanzati and by the University of Roma Tre has analysed in detail the words and linguistic constructions used by people suffering from gambling. The researchers identified several characteristic elements of their emotional and cognitive state in the different stages of the disorder. The study, published in *Addictive disorders and their treatment*, opens up new scenarios for the development of recovery and prevention paths based on linguistic skills.

Sharing personal experiences with friends or relatives, through storytelling, is an exercise that many of us do every day. Yet personal narratives are by no means a trivial process. They help us to order and give meaning to our story, allowing us to integrate the different aspects of our psychic experience, of the different times – past, present and future - in which our mind lives.

The words that an individual uses when they narrate a fact or describe an inner condition reflect their psychological states and represent their particular cognitive and emotional style, personality traits, as well as any symptoms of psychological disorders they may suffer from. That is why the story of self is also an important access route to emotional and cognitive processes used in research and therapeutic contexts.

For the first time, a group of researchers of SISSA and of the University of Roma Tre analysed the narratives of patients suffering from gambling addiction in order to identify the most common problems and provide possible innovative treatments.

In particular, the scholars interviewed 30 individuals suffering from a gambling disorder and undergoing therapy in public services in the Region of Friuli Venezia Giulia. The interviews, done in a semi-structured form, dealt with various aspects of their experience with gambling, from the compulsive trait, to the attempts to control desire, from addiction triggers to those useful for achieving abstinence and regaining control.

The investigators went on to analyse the words used by the patients with LIWC (Linguistic Inquiry and Word Count), the most widely used software for computational linguistic studies. "We identified different linguistic markers of the emotional and cognitive problems of gamblers, which vary in the different phases of the addiction," says Stefano Canali, researcher at the Interdisciplinary Laboratory of SISSA and at the Cosmic Lab of the University of Roma Tre, responsible for the study. "The most evident among all is the total absence of words and sentences referring to the future. This is probably both an indication and a cause of the difficulty gamblers have in thinking about the effects of impulsive and risky behaviour on their future."

Another narrative marker identified by the study was the contemporary use of expressions in first person and in passive form to talk about their relationship with gambling. "It is as if the subject feels as being an 'agent' and responsible for the gambling behaviour and, at the same time, as being 'acted upon', dragged by desire and automatism. This narrative contradiction is a clear indication of a fragmented self," states Canali. "Lastly, these indicators are accompanied by an extreme difficulty to describe emotional experiences connected with the desire to

gamble and the loss of control. This narrative deficit seems to improve with the therapeutic route."

"This is a pilot study which has allowed us to show the importance of language analysis in understanding the psychological functions involved in addictions," Canali concludes. "Clinically speaking, narrative markers can be a new support tool in the therapeutic process, as well as a possible means to recognise individuals at risk. Furthermore, they pave the way for the use of techniques to strengthen narrative skills as complementary strategies in the treatment of addictions, similar to those which are being tested for example with patients suffering from autism."

Gambling in Italy and Friuli Venezia Giulia: data from 2019 and 2020
In 2019, the total gambling amount (slot machine, videolottery, scratch-off cards, sport bets, SuperEnalotto, online gambling, etc.) in Italy was 110,5 billions euros. The gambling volume in Friuli Venezia Giulia was one billion and 369 million euros, equal to 1.305,94 euros per year per person – including institutionalised people and individuals with no access to gambling (*Libro Blu 2019*, published in June 2020 from the *Agenzia delle Dogane e Monopoli*,).

In 2020, during the SARS-Cov-2 pandemic, online gambling increased substantially. In March 2020, the number of online accounts raised by 35% compared to the previous month. A research from the Istituto di Fisiologia Clinica of CNR in Pisa showed that 96% of the new profiles come from people who had never gambled online before. According to the same source, revenues of online gambling in Italy increased significantly in March 2020, compared to the previous year. Revenues generated from online poker tournaments more than doubled (from 7.2 million to over 16 million euros), while those produced from online casino raised from 72.6 million euros in March 2019 to 94 million euros in March 2020.