

# THE POSSIBLE IMPACT OF A MULTIDISCIPLINARY NETWORK IN DEALING WITH CRIMINALITY ASSOCIATED WITH PROBLEMATIC OR PATHOLOGICAL GAMBLING

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## **Abstract**

*In the context of evolving new technologies around the world, access to online recreation and online freedom fails to be approached from the perspective of public health. Research in the domain of problem or pathological gambling shows that few countries have recently started to address the medical and social challenges of the issue, with regard to related-criminality and population health. Romania is not one of those countries, although reality shows an increase in gambling venues and online gambling opportunities which, as studies show, can only mean an increase in the number of problem or pathological gamblers, and possibly an increase in gambling-related crimes. With the present study we aim to point out both the urgent need for a multidisciplinary network to deal with the issues of gambling disorder and its relationship with criminality, and the possible benefits of trying to prevent the harm brought by criminality to society by addressing society's responsibility to the people in terms of ensuring public health. It is the authors' opinions that challenges raised by developing technologies, especially by online mobility and gambling market, together with online identity volatility, will bring even deeper layers of social issues if prevention of problem or pathological gambling is not undertaken as an important priority.*

**Key Words:** *Problem gambling, gambling-related crime, addictive behavior, public health*

**JEL Classification:** [K1, K14, K32, K33, K38]

## **1. Introduction**

Problem and disordered gambling is a rising issue in both developing and developed countries. There is sparse data in the specialty literature regarding the incidence and the scale of problem and disordered gambling throughout the world. In the past years, considerable effort has been made by global health organizations to make an official recognition of "Gambling disorder" as a mental disorder in order to limit, prevent or treat the population at risk for criminal acts. From a medical point of view, problem gambling is

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most often seen as a progressive disorder characterized by a loss of control over several actions pertaining to gambling, actions that interfere with the quality of life of that specific person or others around him (Jazaeri and Bin Habil, 2012). Compared to *problem gambling*, *pathological gambling* has a more concrete definition and has been included as a psychiatric disorder first in 1980 in the Diagnostic and Statistical Manual of Mental Disorders (DSM) III, as belonging to the impulse control disorder category, being later renamed as *disordered gambling* in the DSM-5 and listed in the Addictive Disorders category. The medical recognition of this special population has a great impact on many levels, especially ones regarding the social and juridical aspects of pathological gambling.

There are several observational studies demonstrating a complex relationship between gambling and crime, showing a higher incidence of pathological gambling in convicted offenders. These studies will be referred to later in the paper. It was observed that pathological gamblers with severe symptoms have a higher gambling-related indebtedness and carry out more criminal activity related to gambling not only than usual gamblers, but also higher than pathological gamblers with milder symptoms (Mestre-Bach *et al.*, 2018). The incidence of illegal activity among problematic gamblers is also correlated with an early onset of gambling, severe symptoms of disordered gambling and a high debt related to gambling (May-Chahal *et al.*, 2017). Several studies proposed classifications of gambling-related crimes with reference also to the level of risk for disordered gambling. Such findings will be set out briefly in the present study in order to emphasize the importance of the public health approach to criminality prevention.

An important amount of the research found revealed psychological and psychiatric pursuits of problem or pathological gamblers, finding the common trait of impulsivity to be present in most of disordered gambling. Attention was also given to the so-called “comorbidities”, such as pre-existing antisocial personality disorders or substance abuse, and to certain behavioral or cognitive impairments, such as a decrease of the executive function, especially of the planning and decision-making cognitive subdomains and a lack of control over impulses. These elements show the great social impact of disordered gambling and will provide a basis for the measures the authors propose for the Romanian public health system, measures including immediate and multidisciplinary research which the Romanian gambling domain lacks.

The difficulty that arises with gambling regulation and implementing of problem or pathological gambling prevention programs derives from the general difficulty in harmonizing the public interest with the private, individual one. This delicate operation must find mechanisms of regulation that will observe fundamental rights and freedoms, including the freedom to use one’s incomes and property on self-chosen means of recreation. The question here is where

does one's freedom end and where does the common space of society begin? Challenges brought by technology development come to surface with regard to online gambling where one can imagine that restriction of private life is greater when limiting the access to this type of gambling. When freedom is discussed, the liberty to choose and act is addressed, but can freedom still be called freedom when medical investigations prove that the person does not fully comprehend the consequences of his/her actions and in fact only chooses a small part of its results? By being part of the society people commissioned officials to form specialized branches to maintain public health, and responsible gambling is part of this aim.

As to the studies researched, a few main domains of interest came to attention: law application (exploring criminal responsibility and impunity/incapacity), sociology/criminology (types of population prone to gambling disorder, type of population presenting high rates of gambling disorder), psychology and psychiatry (approaches which don't seem to be clearly separated in dealing with problem/pathological gambling), medicine (the medical research community supported re-indexation of the gambling disorders in the Substance-Related and Addictive Disorders section). The studies' findings will be summarized, followed by a short presentation of Romania's situation up to now.

Irresponsible gaming (with its sublevels, problem and pathological gambling) may have significant impact on many levels, as our research in other countries' numbers and statistics showed, and some of the facets of this problem surpass the basic characteristic of gambling, that is meant to be a business that offers recreation. As the study will suggest, a form of cooperation between experts from different domains towards establishing an operational system for responsible gambling is never too early to be initiated.

## **2. Statistics and approaches to problem/pathological gambling and related criminality around the world**

In a research published in 2016 new data was added to the report issued by one of its authors in 2009, shedding light on worldwide fluctuations in disordered gambling incidence (Calado and Griffiths, 2016). According to this comprehensive research, the last year disordered gambling incidence ranged as follows: 2% to 5% in North America, 0.5% to 5.8% in Asia, 0.4% to 0.7% in Oceania and 0.1% to 3.4% in Europe, numbers showing greatest fluctuations in Asia and Europe. This study showed a significant issue, that of insufficient data, given by lack of empirical research from 21 of the European countries (Albania, Andorra, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Ireland, Latvia, Lithuania, Liechtenstein, Luxembourg, Macedonia, Montenegro, Monaco, Poland, *Romania*, Russia, Serbia, and Slovak Republic). Finally, relevant to our argumentation is this study's

statistical findings on socio-demographic characteristics related to problem gambling, which was more likely to occur among men, single or divorced individuals, individuals of a younger age, individuals with a lower level of education, individuals that belong to an ethnic minority or who had been born abroad and individuals unemployed or with a low income. To our knowledge, at this moment, there is no other recent global or European report quantifying the size of problem gamblers numbers, but isolated reports can be found throughout the specialty literature.

Other studies found smaller scale statistical data applied to certain populations and revealed a high interest for research in this domain in some countries, most of these studies following the complex relationship between gambling and criminality that the authors mentioned above.

Thus, a study conducted between 1999 and 2001 on a sample of 2307 arrestees in the United States of America showed that the onset of criminal behaviour is not always overlapped with the gambling habit and that pathological gamblers in detained men and women belong to underprivileged backgrounds and had specific abnormal personality traits (McCorkle, 2004). This study might suggest that inclination towards gambling could more easily come to people that have already indulged in antisocial acts, proposing hence a co-existence of several forms of illegal conduit.

Another recent research observed patients diagnosed with gambling disorder admitted to the Gambling Disorder Unit within the Department of Psychiatry at Bellvitge University Hospital in Barcelona, Spain (Mestre-Bach *et al.*, 2018). The authors concluded that crime committing gamblers showed higher impulsivity and also more serious gambling disorder, higher debts (with openness to further possible loss based on inner fake certainties about the final outcome) and difficulties in planning and following long term plans. The study proposes psychological and psychiatric approaches, very relevant within the judicial responsibility perspective.

More surveys were conducted in the past 15 years on detainees in several countries, like New Zealand (Abbott and McKenna, 2005; Abbott, McKenna and Giles, 2005) or United Kingdom and Scotland (May-Chahal *et al.*, 2017). The latter also inquired into other countries studies that address crime-gambling disorder link (Canada, Germany and the United States). An older investigation gathered data that proved interest toward examining connections and features of criminality versus problem/pathological gambling in Australia, New Zealand, United Kingdom, United States (Williams, Royston and Hagen, 2005). These surveys observed certain aspects of the disordered gambling-crime nexus, such as: types of crimes committed in relation to gambling (most often to insure gambling money), occurrence moment of gambling disorder on the criminal path, co-existence of behavioral and cognitive disorders or substance abuse, social features or categories characteristic to both crime committing and pathological gamblers.

Besides these inherent perspectives on the crime-problem gambling entity, it was tackled with also from a more general outside direction, in a paper that found an increase in crime rates in counties of Canada which opened casinos, approach that suggests the link has an even greater multilevel impact on society (Grinols and Mustard, 2006).

Romanian competent authorities with relation to gambling (National Office for Gambling) and statistics (National Institute of Statistics) did not develop any statistical data on gambling or disordered gambling. The only available statistical information on gambling in Romania was gathered with the help of a project initiated in 2016 by GfK Romania, Romslot Association and Romanian Bookmakers. This survey found that: the past-year gambling prevalence rate in Romanian adults is 15%; most gamblers are young men, between 18 and 24 years old, not married, coming from urban environment; most gamblers play for recreation and for winning; the gamblers that play to win may be tempted to spend more than planned and to win back the losses; the prevalence rate of problem/pathological gambling is 0,6 % (GfK Romania, 2017).

All the examined research clearly shows that there is a certain relation between disordered gambling and crime. Due to the large variety of social sceneries and specific sociological, anthropological and demographical nuances, a general theory defining and explaining this relation will probably never be projected. Yet, it is certain that this line of thought must not be neglected and that a comparative analysis of the costs implied for fighting crime and social problems determined by disordered gambling and the ones prompted by preventing problem or pathological gambling and promoting responsible gambling must be carried out. Further arguments in this direction will be presented throughout the present paper.

### **3. Disordered gambling from a medical point of view**

Pathological gambling was first recognized as a medical disorder by the Diagnostical and Statistical Manual of Mental Disorders (DSM) III (the official classification for clinical diagnosis in the United States of America) in 1980. The criteria to be met for classification as pathological gambling were the following: “A. The individual is chronically and progressively unable to resist impulses to gamble; B. Gambling compromises, disrupts, or damages family, personal, and vocational pursuits, as indicated by at least three of the following: arrest for forgery, fraud, embezzlement, or income tax evasion due to attempts to obtain money for gambling; default on debts or other financial responsibilities; disrupted family or spouse relationship due to gambling; borrowing of money from illegal sources (loan sharks); inability to account for loss of money or to produce evidence of winning money, if this is claimed; loss of work due to absenteeism in order to pursue gambling activity; necessity for another person to provide money to relieve a desperate financial situation;

C. The gambling is not due to Antisocial Personality Disorder” (Takemura, 2003). Until recently it was classified among the Impulse Disorders.

The International Statistical Classification of Diseases and Related Health Problems (ICD) 10 also indexed the disorder in the list for Habit and Impulse Control Disorders, the ICD being used in all countries except the United States (Sztainert, 2018). The new DSM-5 pathological gambling is called disordered gambling and classified in the Substance-Related and Addictive Disorders category. According to the new definition of disordered gambling, criteria that needs to be met comprise of: “A. Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period: needs to gamble with increasing amounts of money in order to achieve the desired excitement; is restless or irritable when attempting to cut down or stop gambling; has made repeated unsuccessful efforts to control, cut back or stop gambling; is often preoccupied with gambling; often gambles when feeling distressed; after losing money gambling, often returns another day to get even; lies to conceal the extent of involvement with gambling; has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling; relies on others to provide money to relieve desperate financial situations caused by gambling; B. The gambling behavior is not better explained by a manic episode”. The new ICD-11, still in work, has also included gambling disorder in the Substance Use and Related Disorders section (Sztainert, 2018).

Criticism was brought on the one side to reassessing the category for pathological gambling in the recent DSM and ICD, but arguments supporting the change were presented on the other side. One paper suggested that the specialization of critics is not related to the necessary expertise in this domain and that recategorizing can bring more benefits than losses, including access to health insurance which opens paths to funded research and treatment (Rumpf *et al.*, 2018).

One important perspective needs to be assessed here, supporting further reasoning on the imperative of official research, that is the problem of pathological gambling in relation to Parkinson Disease and its treatment.

There are several research papers discussing pathological and problematic gambling, but most often, there is a monodisciplinary approach of the subject, either from a medical, psychiatric or psychological point of view, or from a juridical point of view. Moreover, even though data suggests that there are certain personality disorders, pathologies and medical treatments associated with pathological gambling, no multidisciplinary interventional studies or legal changes were carried out until now in order to prevent population at risk to make undesired life-changing decisions. At this moment, communication between health-providers, participants to the justice systems

and gambling authorities, with respect to the problem gambler, only happens after the antisocial conduit and no prevention common strategy (example: limiting the access of selected population to land based venues or online addictive games) is set up in order to avoid exclusion from society for this group of people.

From a medical point of view, the addictive behavior, including the gambling addiction, is often considered being caused by a dysregulation of the dopaminergic system. Nevertheless, recent studies suggest that abnormal behavior, including the gambling disorder is associated with more complex structural cerebral and neuro-chemical changes.

The most striking example may be the Iatrogenic Impulsive-Compulsive Disorders (ICDs), which can be a complication found in patients with Parkinson Disease (PD) receiving treatment with dopaminergic agonists (DA). ICDs are characterized by the impossibility to resist and control specific urges and temptations, which leads to abnormal compulsive and repetitive behaviors. ICDs are an umbrella term which encompasses not only the gambling disorder but also other pathological behaviors, such as hypersexuality, eating disorders, inappropriate social behavior, hobbyism, overmedicating and excessive buying (Gatto and Aldinio, 2019). In a comprehensive review published in 2019, the prevalence of ICDs is much higher not only in patients with PD receiving DA, but also in newly diagnosed PD patients (Gatto and Aldinio, 2019). Moreover, the risk of developing pathological gambling is found to be 7 times higher in patients diagnosed with PD than in the general population (Joutsa *et al.*, 2012). ICDs can have a serious impact on the quality of life of the patients and also of their family and society, often leading to criminal activity. Though less frequent, severe cases of patients with PD and ICDs who executed violent crimes, thefts and murders have also been reported in the literature (Santens *et al.*, 2018). When analyzing the structural and functional cerebral differences between patients with ICDs and general population, it is noticed that patients with PD, complicated with ICDs, have increased activity in the mesocorticolimbic dopaminergic circuit, which further leads to disruption of important circuits involved in self-control, risk-taking and calculated decision-making. Other important changes in the brain architecture and connectomics of patients with ICDs were also described, such as atrophy of orbito-frontal and rostral cingulate gyrus and abnormal activity of the salience and default mode network, but they will not be further discussed, as they go beyond the purpose of the current paper (Gatto and Aldinio, 2019).

Following the pattern of the patients diagnosed with PD, other diseases and therapeutically drugs were also found to be associated with drug-induced ICDs and pathological gambling. Thus, several patients with schizophrenia or other pathologies which were treated with Aripiprazole, a partial dopamine agonist, became pathological gamblers (Grall-Bronnec *et al.*, 2016).

These objective medical findings raise an important issue regarding criminal responsibility/capacity of this group of people, but mostly emphasizes the necessity of further studies in order to examine if the pathological changes described in patients treated with DA or partially DA are also common in pathological gamblers which were not exposed to such drugs.

This very high risk of developing pathological gambling disorder in a selected population is a well-known problem and should lead to the development of a strategic plan to prevent criminal activity. This could only be possible through a close collaboration between legal, medical and official gambling entities. Thus, health-providers who treat patients at risk for developing ICDs could alert gambling-services providers, which could for example limit the access of this group of people to addictive games or limit the allowed spending in one visit/day/month. This would not only benefit the society by reducing the criminal activity, but also the gamblers, who could remain integrated in society for a longer period of time.

#### **4. Discussion and conclusions**

This study aimed to observe two insights: the criminal responsibility that implies one's capacity to understand the wrongfulness of his/her actions and to act accordingly, and the possible medical implications of disordered gambling. Both these insights manifest differently in the context of the isolation and lonesomeness brought by the new technologies' online "freedom". The line connecting the two, meaning the link between criminality and problem gambling, supports the urge towards further investigation.

The present research has brought up the imperative necessity for a thorough interdisciplinary cooperation in Romania, first to assess the size of the issue of problem/pathological gambling and gambling-related crimes, and second to produce a healthy system of responsible gambling and disordered gambling prevention. Such a mechanism cannot be implemented without proper expertise on behalf of gambling competent authorities working together at least with medical scientists and researchers of law. It is the authors' opinion that in the long run, addressing and preventing disordered gambling and promoting responsible gambling will be business beneficial to gambling operators too. A pathological/self-destructive way of spending personal resources on gambling may lead to high incomes for providers in the beginning, but may in the end bring lower business power, due to impact on population credit-worthiness. One individual's mental health and solvency could have influence on others' as well.

The situation in Romania in this respect is rather unorganized. In 2014, Government Emergency Ordinance no. 92/2014 (later approved by Law no. 124/2015)<sup>1</sup> introduced the authorities' obligation of establishing a public

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<sup>1</sup> <http://legislatie.just.ro/Public/DetaliuDocumentAfis/164246>, <http://legislatie.just.ro/Public/DetaliuDocument/168672>, accessed: 16 April 2020.



foundation supported by a public fund available for the central Romanian gambling authority. The fund, made of mandatory contributions by gambling operators, would have been used for youth protection, preventing and treating gambling disorders, promoting responsible publicity. No such activities were carried out to our knowledge. In 2018, the legal provisions stated before suffered modifications. Government Emergency Ordinance no. 114/2018<sup>2</sup> introduced a new obligation for the official authorities by modifying the provisions enforcing it before, requiring the establishing of an “activity” linked to the central Romanian gambling authority, activity that would be financed the same way (with mandatory contributions from game operators) and would be allocated to the same purposes. As far as we know, no activities of this type were conducted until now.

This finding together with the level of fees imposed in Romania on gambling operators for obtaining licenses and authorizations and for providing certain gambling activities, correlated to the increase in the number of gambling providers and venues, suggest a fiscal approach and disregarding of essential aspects with great impact on public health and criminality. Such an approach may be capable to put pressure on specialists in several key domains, to find the way inside the incomplete perspective.

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