

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/301827744>

A study of the connection between gambling and crime in Hungarian prisons

Article in *International Journal of Law and Psychiatry* · May 2016

DOI: 10.1016/j.ijlp.2016.04.004

CITATIONS

4

READS

343

2 authors:



Judit Tessényi

University of Szeged

18 PUBLICATIONS 16 CITATIONS

[SEE PROFILE](#)



Peter Kovacs

University of Szeged

13 PUBLICATIONS 76 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



ProCivicStat - Promoting civic engagement via explorations of evidence [View project](#)



structural analysis of senior citizens leisure time [View project](#)



A study of the connection between gambling and crime in Hungarian prisons



Judit Tessényi¹, Péter Kovács

University of Szeged, Hungary

ARTICLE INFO

Article history:

Received 30 March 2016

Accepted 18 April 2016

Available online 3 May 2016

Keywords:

Gambling game

Crime

Addiction

Problem gambling

ABSTRACT

In the following study, we examine the connection between crime and gambling addictions. In addition to examining the playing habits of 140 detainees prior to their imprisonment, we also study their demographic characteristics, and their relations.² We previously studied these correlations as a part of a data recording in 2009 (Tessényi-Kovács, 2011).³

By the 10th of October 2012, the use of gaming machines was terminated in Hungary. Therefore, our survey has gained a repeated actuality, since a significant cause of addiction has disappeared from the market. We question whether this factor has had a measurable effect. Although the elapsed time is not necessarily enough to measure the presumed changes in crime due to gambling, we nevertheless make the comparison with the results from 2009.

For the study of pathological problem gambling, we applied the original version of the SOGS-questionnaire, complemented with demographics and other relevant questions from the perspective of our survey.

© 2016 Elsevier Ltd. All rights reserved.

1. Background

Gambling addictions can be measured with a number of tools. Tests are one such mechanism. When choosing a test, it is reasonable to choose from those which are already rated and internationally accepted. This is why we have selected the SOGS⁴ questionnaire. The test was published in 1987 by Henry R. Lesieur and Sheila B. Blume. After multiple investigations, it was finalized in 1992, with additional application and operating instructions (Lesieur & Blume, 1987, 1992). SOGS is a 16-item-questionnaire which examines the respondent's playing habits, their frequency, and the behaviors related to them. Originally, it was designed to filter out the affected problem gamblers within clinical circumstances. SOGS is one of the most widely used tests in the epidemiological measurement of gambling addiction. Subsequently, an adaptation⁵ that considers the Hungarian circumstances was prepared (Demetrovics & Kun, 2010; Kun et al., 2011). However, it was not accessible until 2011 (Gyollai et al., 2011), meaning that the data was unavailable during the earlier 2009 prison survey.

In the 2009 study,⁶ only 33% of the respondents reported that gambling did not cause problems for them. However, of the sample group, 30.7% were prone to gambling addiction endangered, meaning that they answered between one and four of the relevant questions in the affirmative. As many as 35.7% of the sample's detainees could be considered gambling addicts, because positive answers were given to five or more questions. Of this group of gambling addicts, 22% gave a positive answer to only 5 questions, making their addiction less severe. The other 78%, however, exhibited signs of addiction in exceeding amounts (Tessényi & Kovács, 2011).

A similar study was performed in Canada, where Turner and his colleagues studied the question of gambling in penitentiary institutions there, with the application of CPGI/PGSI.⁷ According to their investigation, several field surveys were performed between 2008 and 2011 in penitentiary institutions in order to explore gambling behavior and gambling problems. Playing habits prior to and during imprisonment were examined separately. A total of 422 detainees (381 male and 41 female) took part in their survey. They found that of the examined prisoners, 8.9% had already been pathologically problematic⁸ gamblers prior to their imprisonment, and 4.4% remained so during imprisonment. These statistics show significantly higher rates of gambling addiction in prison as compared to those measured within the general population. While 34% of the detainees conducted gambling games in

E-mail address: tessenyijudit@gmail.com (J. Tessényi).

¹ Tel.: +36308253940.

² 2014 data recording took place in September–October, in **Sándorháza, Mélykút** and **Baracska** penitentiary institutions (Hungary).

³ The result of the first research is English appearance progress: *Gaming Law Review and Economics* Volume 19, Number 9, 2015.

⁴ South Oaks Gambling Screen: Lesieur and Blume (1987).

⁵ Under SOGS-HU name.

⁶ Between December 2009 and March 2010 in Tököl, Kecskemét and Szeged. The full analysis can be found in the 4th Article of the *Statistical Journey* 2011 (89th year).

⁷ Problem Gambling Severity Index of the Canadian Problem Gambling Index.

⁸ "Severe problem gambling".

prison, almost half of them had a gambling problem prior to their imprisonment (Turner, Preston, McAvoy, & Gillam, 2013).

Our 2009 survey revealed a significant relationship (significance = 0.005) between age groups and the SOGS-classification of the detainees. Of all gambling addicts, 55.6% were found to be between 18 and 30 years old, while the distribution of non-addicts was nearly consistent in all age groups. 35.9% of the endangered were less than 18 years old, and 59% were less than 30 years old (Tessényi & Kovács, 2011, 408 p.).

In the 2009 study, 50.7% of the respondents had already been convicted. Of this group with criminal records, 51% were classified as problem gamblers, based on the SOGS-measurement. Of those without a criminal record, 45% were not problematic, while 40% of them were endangered. These results revealed that problem gamblers were 3.38 times more likely to be found among detainees with previous criminal records than among those without.

Paterson and Garrett published a study⁹ in 2011 which examines the connection between gambling, drug use, and criminal behavior in an Australian context. Besides the survey of gender differences, their statement revealed that more than half of the prisoners used their addiction as a defense (in the Anglo-Saxon law the addiction, as a disease, is a mitigating circumstance). The connection between these three factors was most evident in cases of fraud, theft and robbery (Paterson & Garrett, 2010).

Valérie Beaugard and colleagues used an interesting approach, by summarizing the opinions of Quebec province's penitentiary officials. They investigated disciplinary reports, which confirmed that coercion and prohibition are rarely successful in combatting gambling activities. This can be explained by the fact that betting activities were less of a cause for concrete interventions than other undesired behaviors, such as disturbing the peace of prisoners' cells. Many interviewed guards described gambling as a positive leisurely activity, reasoning that the negative effects generated by it appeared only occasionally; that gambling relieves stress; and it helps to maintain peace among the prisoners. Since this activity usually does not endanger the penitentiary staff or detainees, it is usually used as a tool of mediation (Beaugard, Chadillon-Farinacci, Brochu, & Cousineau, 2013). In French prisons, the proportion of pathological problem gamblers is 6.7% (Mandhouj, Aubin, Amirouche, Perroud, & Huguélet, 2013). Here, another approach was taken in investigating the relationship between gambling and crime, by studying—during the detention period—the condition of penitentiary institutions rather than the playing habits prior to imprisonment.

As previously addressed, the comparability of given measurement results is greatly limited by differing periods, number of elements, but mostly by the application of various measurement tools throughout the different studies (Tessényi, 2013). For these reasons, we believe it is important to apply the original 2009 questionnaire during our latest measurements in spite of its occasional limitations.

2. Methodology

As seen in the above table, currently the prison population in Hungary is 18,000, 70% of whom are convicts (Table 1).

In 2011, the Hungarian version of SOGS-HU measurement tool was first introduced and used for the analysis of domestic data, which was measured in the first nationally representative sample (Gyollai et al., 2011). We compared this questionnaire, item by item, with our own SOGS questionnaire (translated by us and used in 2009 during our prison research) and found no essential differences, except stylistic discrepancies. On the basis of assessed answers (following Question 4), SOGS-HU determines the following categories (Table 2).

⁹ Report Into the Possible Connection Between Problem Gambling, Drug Usage and Criminal Activity Among Clients of OARS SA <http://iga.sa.gov.au/pdf/iga/IGA-OARS-20110623.pdf>.

Table 1

The total number of prisoners. 2008–2013 in the penitentiary.

Adapted from: Central Hungarian Bureau of Statistics (2013). Hungarian Statistical Yearbook.

Detention	2008	2009	2010	2011	2012	2013
Pre-trial detention	4366	4502	4803	4875	4888	5053
Convicted	10,072	10,590	11,241	12,028	11,981	12,391
IMEI	183	186	174	180	182	183
Referrals to imprisonment	81	82	110	127	128	214
All	14,702	15,360	16,328	17,210	17,179	17,841

IMEI: involuntary treatment.

We haven't found any “breaks” in the full sample, supporting or invalidating the categorization. However, within the group of problem gamblers, the 5th and 10th point can be regarded as a “watershed”.

In order to continue this comparison with categories congruent with our 2009 results, we applied the original questionnaire and assessment system in our recent survey. However, in the following figure (Fig. 1), we see the classification of 2009 results as adapted to the standardized SOGS-HU survey. As seen in the figure, with the merging of the “less problematic” and the “problematic players”, we arrive at the original results (in further analysis we use the “endangered” designation for this group) (see Figs. 2 and 3).

3. 2014 test results

In the fall of 2014, we repeatedly carried out our test, which had a sample size of 140 detainees. The differences in the sample will be analyzed in the next subchapter. In our recent sample, 16 women are included (11.4%). Therefore, gender characteristics are not considered in our study. However, it should be noted that according to the answers given by women in the survey, gambling problems are just as prevalent amongst them as they are amongst men— 31.5% and 31.3% respectively. At the same time, on the basis of the test, among women, the proportion of not problematic (37.5%) and problem gamblers (43.8%) is higher, but the percentage of endangered (18.8%) is much smaller, although it has to be noted that the correlation is not significant. According to national records, women make up 6.5–7.6% of the prison population in Hungary (Table 3).

3.1. Changes compared to the 2010 proportions

Our main interest was in the changes in trends during the five years (between 2009 and 2014) concerning the imprisoned detainees' “contamination” and in relation to their playing habits. During the selection of respondents we focused on those whose crime or start of imprisonment took place after 2012.

Amongst the problem gamblers, 3.6% gave a positive answer to 5 questions in the filtering test, meaning that they were at the lower level of addiction. However, based on their answers, the overwhelming

Table 2

Methodological collation (SOGS-HU between employees and categorization).

Adapted from: Gyollai et al. (2011) and Tessényi and Kovács (2015).

Score on the basis of “yes”	Name of the SOGS-HU-under	Comment own definitions
0	Problem-free	No problem
1–2	Few problems characterized by	Endangered
3–4	Problematic players	
5–20	Pathological gamblers	Dependent

SOGS: South Oaks Gambling Screen: <http://walker.d.people.cofc.edu/360/AcademicArticles/LesieurBlume1987.pdf>.

SOGS-HU name of the Hungarian adaptation (Gyollai et al., 2011).

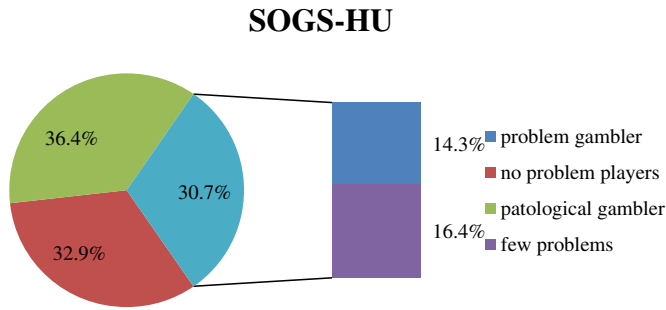


Fig. 1. 140 detained in 2009 on the basis of categorization SOGS-HU. source: own data Tessényi and Kovács (2011).

The composition of the sample by age group

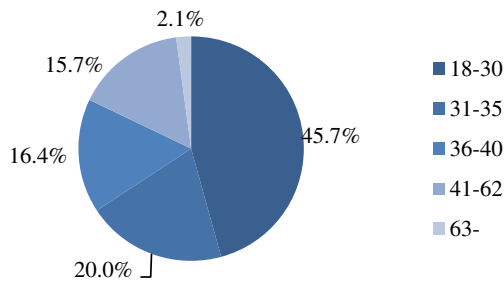


Fig. 2. 2014 sample by age group. source: own data Tessényi and Kovács (2015).

majority of problem gamblers showed signs of addiction in excessive amounts. We observed that, according to Gyollai et al.'s SOGS-HU categories in our sample, many of those in the group attaining 1–2 points—who were “less problematic”—made it from the endangered: 19 respondents, that is 13.6% of the full test population. This, from the perspective of our investigation, is not relevant, since the number of pathological gamblers attaining more than 5 points increased drastically. Because of this, we will return with a detailed investigation of this group at a later time in this study.

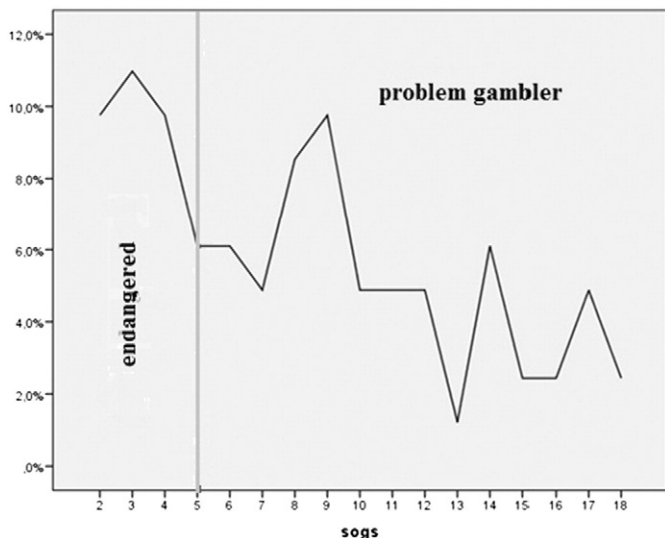


Fig. 3. The classification of the risk and gambling addicts SOGS. source: own edited.

Table 3

The distribution of detainees in penitentiary institutions according to gender. Adapted from: Central Hungarian Bureau of Statistics (2013). Hungarian Statistical website.

Year	All	From this		The proportion of women within the detainees
		Male	Female	
2009	15,360	14,362	998	6.5%
2010	16,328	15,295	1033	6.3%
2011	17,210	15,974	1236	7.2%
2012	17,179	15,938	1241	7.2%
2013	17,841	16,485	1356	7.6%

Table 4

The detainees are examined according to the distribution of their gambling addiction (2010, 2014%). Source: Own data Tessényi and Kovács (2015).

Year	No problem	Endangered	Addicted/problem gambler
2010	32.9%	30.7%	36.4%
2014	33.6%	25.7%	40.7%

We did not find an addicted-endangered difference¹⁰ within age groups, but, in lack of significant deviation, it can be stated that in the younger generation, addiction is more prevalent than in the older. People above 41 years old are typically not problematic gamblers, whereas 42.2% of 18–30-year-olds and 54% of 31–35-year-olds are problematic gamblers. In this sample, we have not found a connection between age, education, marital status, or gender, and pathological gambling.

3.2. Statistical methods

We performed a cross table analysis and distribution surveys during our research, as well as a correlation analysis that studies the connection between the highest bet amounts and addiction. With the help of this technique, it can be seen which SOGS category is correlated with a played amount.

3.3. Hypotheses

Initially, we question the proportion of problem gamblers among current detainees and the extent to which these individuals are aware of their own addiction. Subsequently, we investigate the relationship between gambling addiction and socio-demographic factors. After this, we discuss the connection between problem gambling and the amount of the played sum of money; the raising of necessary financial resources; and the type of the gambling game played. Finally, we investigate the relationship between committing crime and gambling addiction. To this end, we compare the 2009 results, with the findings of our newest research. According to our hypothesis, the proportion of the addicts and the endangered has increased in the last 5 years. Additionally, the termination of gambling machines only diverted those who wanted to play the machines towards other types of gambling.¹¹

In conclusion, our hypothesis is that the number of addicts and endangered people increased as compared to 2009. We cannot conclude that there is a connection between marital status and gambling addiction. Furthermore, the presence of other addictions reinforces the risk of developing an addiction.

¹⁰ If we find problem gamblers among young people and middle aged people with the same probability.

¹¹ During our studies we perform independence study and the comparison of probabilities. For the examination of problem gambling and the socio-demographic factors, self-knowledge, the game type and the connection of the played sum we prepared a cross table analysis.

3.4. Test results

Foreign prison surveys suggest the presence of a strong relationship between the consumption of addictive agents (drugs, alcohol) and behavioral addictions (Lesieur, Blume, & Zoppa, 1986). For example, Brown found a higher prevalence of problem gambling among detainees (Brown, 1987).

Of those admitting drug use, 70% are problem gamblers and only 16.7% of them are non-problematic gamblers, while 33% of those who do not use drugs are not gambling addicts. We can conclude from the results in our sample that 89% of non-problematic players are not drug users, but 37% of problem gamblers are drug users. The result is in line with the results found in the above mentioned study of Paterson and Garrett in Australia in 2011.

In the 2012 yearbook of KSH, regarding “the role of alcohol and drugs of criminals according highlighted crime groups,” alcohol played a role in 12.3% of the cases, while drugs played a role of 2.3% relating to property crimes. According to the KSH’s data, alcohol primarily influenced traffic crimes (40.8%), while drug consumption was a significant factor in cases of crimes against public order. At the same time in 2012, more than 16,500 crimes were committed under the influence of alcohol, according to our study sample (Table 5).

Based on our data above, we can conclude that 55% of the detainees who admitted to alcohol addiction are also problem gamblers based on the SOGS test. Among this group, the endangered are slightly overrepresented (27.7%). 74% of drug users in 2009 were problem gamblers, as compared to 70% in 2014. Based on the above table, we believe that the proportion of those with “multiple disadvantages”—detainees who are simultaneously struggling with multiple addiction problems—has decreased (from 12.1% to 10.7%). In both periods, 3–3 prisoners were found, who were affected in all three fields of addiction.

We investigated whether the presence of problem gambling among family members and close relations influenced problem gambling amongst the prisoners. The results show that 79% of the respondents with an addicted brother are also addicted themselves according to our own classification. There is a positive relationship between the number of problematic gamblers surrounding the respondent (e.g. father, mother, brother, other relative) and the likelihood that the respondent himself is a problem gambler. On the contrary, there was a 65% probability that the detainee is not addicted, if he has no family members with addiction problems. If just one family member is a problematic gambler, then the possibility of an addiction is 46%; whereas in case of 2 addicted family members, the probability increased to 68%. In cases of problem gamblers, the probability that their spouse is related to the problem is 2.5% higher, while in non-addicts’ cases, only 6.3% of the subjects’ partners were problem gamblers. This doesn’t make sense.

In our sample, no significant relationship was found between the types of crime committed (including theft) and the prevalence of problem gambling. However, having a criminal record is clearly linked to problem gambling. Of those who have been previously penalized, 50% were gambling addicts. However, 72% of all addicts in our sample have been penalized before, meaning that gambling addicts are over-represented in the group with prior convictions. The same proportion regarding the endangered is 56%.

As seen in the above table considering the types of crimes in the textures of the two periods, there was no significant difference between 2009 and 2014 (Table 6). Although the proportion of those convicted

Table 5
The role of alcohol and drugs in the crime offenders (%).
source: own data.

Year	Alcohol	Drug	Alcohol and drug	Gambling	More dependence
2009	12.85	19.3	5.71	12.14	12.1
2014	12.85	21.4	4.28	9.28	10.7

Table 6
The examined offenders according to main crime groups.
source: own data Tessényi and Kovács (2015).

Crime	2009 (capita)	2009 (%)	2014 (capita)	2014 (%)
Burglary	12	7.3%	13	7.8%
Physical violence	25	15.2%	13	7.8%
Robbery	45	27.4%	30	18.0%
Theft	26	15.9%	46	27.5%
Truculence	9	5.5%	18	10.8%
Other	47	28.7%	47	28.1%

for theft is 11.6% higher than other crimes, no significant connection could be found between given types of crimes and problem gambling in the 2014 sample.

The size of weekly played sums shows a clear connection with problem gambling, since 74% of those exceeding 100,000 Hungarian Forints (HUF) in weekly gambling are addicted. Of those gambling with a sum greater than 10,000 HUF, we found that around 71% were addicted, while among players gambling between 5000 and 10,000 HUF, only 56% were addicted. There thus is a positive correlation between the chance of gambling addiction and the amount that was gambled on a weekly basis.

Compared to the 2009 spending habits, the proportion of those players gambling extreme sums (mainly above 100,000 HUF/week) decreased, that is, in case of problem gamblers, the tendency shifted towards playing more moderate sums.

3.5. Changes in game orientation of problem gamblers and the endangered over the last five years

Similar to our 2009 research findings, the gaming machines (57.9%), scratch cards (45.6%) and casino games (33%) are the most popular among the addicted (Table 7).

The above table shows the distribution of all respondents regarding their use of gaming machines. In the 2014 data, we found that with the exception of 5 respondents, all weekly players are problem gamblers according to the SOGS classification. (among the 5 exceptions, 3 are endangered and 2 are not problematic). From the survey, however, it can already be seen that the proportion of non-gambling people has increased.

While in our 2009 sample, the proportion of players gambling with scratch cards was 9%, while for gambling addicts this was 12.8%. In 2014, the proportion of players gambling with scratch cards had significantly increased to 27.9%, whereas 45.6% of problem gamblers played with scratch cards. We found a decreasing tendency with regards to the lottery, sports betting and casinos, while in relation with other games there was no significant change.

In our questionnaire we asked if gambling games played a role in committing crime and found that 19% of the problem gamblers answered yes, while in the full sample, the proportion of positive answers was 9%. This is a 3% decrease as compared to our results from five years ago.

We were curious if the respondents regarded themselves as problem gamblers. Of pathological gamblers (addicts), 54.4% were aware of their condition, while the non addicted were even more aware (89% told about themselves that they are not addicted).

Table 7
The popularity of gaming machines in the examined sample on the basis of 2009 survey.
source: own data.

Popularity of gaming machines	2014 (capita)	2014 (%)	2009 (capita)	2009 (%)
Not at all	52	37.1%	41	33.6%
Less than once a week	50	35.7%	51	41.8%
Multiple times weekly	38	27.1%	30	24.6%
All answers	140	100.00%	122	100.00%

Finally, I would like to address how respondents acquired resources to finance their gambling habits. In this regard, the problematic gamblers in the 2014 primarily financed their excessive gambling habits by selling their personal belongings (60%) and by taking away money from household expenses (56%). In our 2009 survey we also found that the most used method of financing gambling habits was selling property, but the second most popular means of acquiring money was to borrow from relatives (61.4%)

4. Summary

As opposed to our expectations, the proportion of non-problematic players increased, although only 0.7% and unfortunately, the amount of pathological gamblers has significantly increased. The size of the intermediate category, or in other words the proportion of the **endangered**, decreased by 5%, which on one hand can be explained by the increase of problematic gamblers (Table 4). On the other hand, in our current sample none of the respondents were underage (and among them the proportion of endangered is known to be higher). Compared to our research results from five years ago, in relation to problem gambling the size of the played bets decreased and the type of crime was not a relevant factor. At the same time, the significance of family motivation remained, and in the cases of those with a criminal record, the risk of problem gambling is also higher. With the termination of gaming machines, the interest of pathological players has notably shifted towards other gambling games—mostly towards scratch cards. Our investigation has reassured that the existence of other addiction disorders reinforce the risk of problem gambling in the sense that, among those struggling with alcohol and/or drug problems, the prevalence of pathological gamblers is also higher.

Acknowledgment

The authors would also like to thank Krisztina Layber for collecting questionnaires. I would also like to thank Kathryn Metz and Aron Vekony for the professional translation.

References

- Beauregard, V., Chadillon-Farinacci, V., Brochu, S., & Cousineau, M. M. (2013). Enforcing institutional regulations in prison settings—The case of gambling in Quebec. *International Criminal Justice Review*, 23(2), 170–184.
- Brown, R. I. F. (1987). Pathological gambling and associated patterns of crime: Comparisons with alcohol and other drug addictions. *Journal of Gambling Behavior*, 3(2), 98–114.
- Central Hungarian Bureau of Statistics (2013). *Hungarian statistical yearbook 2012*. Hungary: Budapest.
- Demetrovics, Z., & Kun, B. (2010). *Fundamentals of addiction IV*. Budapest, Hungary: ELTE Eötvös Press.
- Gyollai, Á., Urbán, R., Kun, B., Paksi, B., Arnold, P., Balázs, H., ... Demetrovics, Z. (2011). Problem and pathological gambling in Hungary, the Hungarian version of the adaptation of the South Oaks Gambling Questionnaire. *Psychiatria Hungarica*, 26(4), 230–240.
- Kun, B., Balázs, H., Arnold, P., Paksi, B., & Demetrovics, Z. (2011). Gambling in Western and Eastern Europe: the example of Hungary. *Journal of Gambling Studies*, 1, 1–20 <http://www.citeulike.org/article/8984932>.
- Lesieur, H. R., & Blume, S. B. (1987). The South Oaks Gambling Screen (The SOGS): A new instrument for the identification of pathological gamblers. *American Journal of Psychiatry*, 144, 1184–1188.
- Lesieur, H. R., & Blume, S. B. (1992). Revising the South Oaks Gambling Screen in different settings. *Journal of Gambling Studies*, 9(3), 213–223.
- Lesieur, H. R., Blume, S. B., & Zoppa, R. M. (1986). Alcoholism, drug abuse, and gambling: Alcoholism. *Clinical and Experimental Research*, 10(1), 33–38.
- Mandhouj, O., Aubin, H. J., Amirouche, A., Perroud, N. A., & Huguelet, P. (2013). Spirituality and religion among french prisoners: An effective coping resource? *Criminology & Penology*, 25, 42–75.
- Paterson, A., & Garrett, L. (2010). Report into the possible connection between problem gambling, drug usage and criminal activity among clients of OARS SA. *Gambling and Drug Research Project*, 2008–2010.
- Tessényi, J. (2013). *Problem gambling—A behavioral-economic approach*. (Statements of the PhD, Hungary).
- Tessényi, J., & Kovács, P. (2011). Szerencsejáték-függőség és bűnözés. *Statistikai Szemle*, 89/4, 399–419.
English: Tessényi, J., & Kovács, P. (2015). Gambling and violence in Hungary. *Gaming Law Review and Economics*, 19/9.
- Tessényi, J., & Kovács, P. (2015). Szerencsejáték és bűnözés kapcsolatának vizsgálata. *Ügyészek Lapja*, 2015/1, 29–37.
English: Tessényi, J., & Kovács, P. (2015). Examination of the relationship between gambling and crime. *Journal of Prosecutors*, 2015/1, 29–37.
- Turner, N. E., Preston, D. E., McAvoy, S., & Gillam, L. (2013). Problem gambling inside and out: The assessment of community and institutional problem gambling in the Canadian correctional system. *Journal of Gambling Studies*, 29/3, 435–451.