

Research on the Connection Between Gambling and Crime in Hungary - The Third SOGS Prison Research in a 10-Year Perspective

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Abstract

In our research we examined the connection between gambling and crime with 175 prisoners before going to prison. The main topics were gaming habits and demographic attitudes. For our research we used tests to find out the right answer. The actual habits are based on the results of the previous test between 2009 and 2014. We used the South Oaks Gambling Screen test to find out these unhealthy habits and we added specific questions as well. We have to say that the number of problematic gamblers has reduced in the past years in the Hungarian penitentiary institutions, but the dilemma is still essential. Only 11% of the respondents said that reason for the prison sentence is in connection with gambling but in terms of the gambling addicts this number is 28%.

Keywords

Gambling, Addiction, Prison, Crime, SOGS

Introduction

It gives a fresh perspective to our research, that in Hungary since the 10th of October 2012, the operation of the gambling machines is limited to casinos. By this action, the addiction to gambling and the following problematic cases were reduced since there was no limit in operation earlier. Even restaurants and bars had the license to work with these machines. The effect of these actions was not adequate to count on when we researched in 2015. By now, there are many online casinos and their access is easier for the players.

In the test, we measured the number of addicts among the prisoners and found out their gambling problem awareness. Moreover, we evaluated the connection between the betting price and the addiction, the source of the money spent on betting, the type of the game, and lastly the crime commitment. We compared the 2009's and 2014's results with our current research. As we expected, the number of the addicted persons and the people at risk have increased in the past five years. As a result of the limitation of the betting machines in Hungary, people followed other types of games. We based our opinion on the fact that the sales of gambling related products and services have raised dynamically in Hungary during this period. For example, the [Hungarian] National Betting Company's business results increased, especially in the market of the highly addictive games e.g. sports betting.

In the analysed period the number of previous-arrested people has decreased while the convicts and the ones who are sent to separation have increased by 3277 persons (Table 1). Altogether we measured a 10.9% increase during the examination period. Data were collected from different types of penitentiary institutions, but this study does not examine differences between types of institutions.

Drew attention to feminisation in gambling [4]. In 2007, 2010, and 2015 the current gaming habits and their changes in Finland were assessed. The outcomes show that while for males gambling is more important than the females. On the other hand, female's participation and problematic cases have increased. Overall, participation in gambling showed an increasing trend (6.6 percentage points, 95% CI 4.9–8.3) be-

Table 1: The number of prisoners in the prisons together, 2008-2018.

Year	Arrested before-hand	Convicted	Compulsion-medical treatment	Referred to foreclosure	Detainee	Sum
2008	4.366	10.072	183	81	0	14.702
2009	4.502	10.590	186	82	0	15.360
2010	4.803	11.241	174	110	0	16.328
2011	4,875	12.028	180	127	0	17.210
2012	4.888	11.981	182	128	0	17.179
2013	5.053	12.391	183	214	0	17.841
2014	4.418	13.143	177	303	0	18.041
2015	4.061	13.369	186	299	45	17.960
2016	3.572	13.565	194	235	0	17.566
2017	2,835	13.390	185	367	566	17.343
2018	2,694	13.038	179	392	0	16.303

Source: Prison-statistics Article, based on the 2015-2019 editions

The results of other researchers concluded that the problematic or pathetic gambler's rates are shifting. However, among the prisoners, the rates of problematic gamblers are significantly higher than among the [1] in their work evaluated 12 research results made in the prisons. Furthermore, we would like to highlight three main items from it. Most of their study was created by the SOGS measuring instrument. SOGS had many negative critics in the past years, yet we still cannot use any other application to be comparable with our previous studies. Other studies were based on PGSI (Problem Gambling Severity Index) or EIGHT Gambling Screen. On the other hand, nearly 4000 studies were done and only 4 of them had a separation between genders. Moreover, the classification and number of items and gamers are frequently changing and we have to be careful along with the comparison. [2]. In our study, we separate genders, and it is obvious that gender ratio is an important factor and can be a limitation when comparing studies.

In Japan, similar research was done with the use of SOGS, which detected 38,55% problematic gamers among the 332 male prisoners. That result is significantly higher than the SOGS collection from Banks and its's weighted average separated to items (22.85%). Above the measurement of prevention, they declared that the passion for gambling is in connection with property offence. They considered the crime as a tool, when satisfying their passion for gambling, but this status was not followed by further addiction or emotion-based crimes. In Finland, two prison studies were carried out [3] on 97 prisoners, where the number was only 16,3%, mostly BBGS based. However, most of the time they were sentenced because of property offence.

tween 2007 and 2015 among those surveyed. Between 2007 and 2011, the proportion of female gamblers increased more (7.8 percentage points, 95% CI 5.5–10.4) than that of men (5.4 percentage points, 95% CI 3.2–7.6). Since 2007, the most popular games have been lotteries, scratch cards and electronic gaming machines (EGMs). Another Finnish research [5] was based on the interview of the penitentiary staff, where they asked them about their knowledge, experience about problematic gambling. The goal was to correct the training, identify the gambling problems, to react to these problems, and for better orientation. Eighty-one percent of the staff considered the gambling problem as a massive question in Finland. In the past ten years, nine out of 10 workers met problematic gambler prisoners. Half of the workers that participated claimed that they have no appropriate training or information about the gambling problems and the questions about it [6].

Methodology

For our research, the collection of the information was made in 4 Hungarian cities (Kecskemét, Szeged, Eger és Gyula), with their penitentiary institutions, in the October of 2019. In 2014, research was made in Hungarian cities as well (Sándorháza, Mélykút, and Baracska), while research in the 2009's was based on the cities like Tököl, Kecskemét, and Szeged.

In our research that was implemented 5-10 years ago, we used the standard edition of SOGS [7], and the same listing and content added the supplementary questions. These additions were aimed to find out the reason for the sentence, the

addiction problems among the families, and the existence of their addiction and gaming habits.

One-hundred and seventy-four prisoners completed our tests, and 167 of them were accepted. The collection of responses was made in small groups voluntarily with 53 females (31.7%) and 114 (68.3%) males participated. In each case, an interviewer supervised the completion and assisted in the interpretation of the questionnaire.

The tests which were empty, not filled or answers were self-contradictory, have not been reviewed.

Results

Twenty-seven percent of the participating prisoners were under 30 years and only 4% were pensioners. Considering their academic qualifications, the result concluded prisoners with lower qualifications were highly represented. We can see that 35% of young adults and middle-aged people are addicted. In this age group, the reason for the missing of the addicted people is the low pattern portrait. Looking at the academic qualifications and comparing them to the entire population, this factor is lower. However, the addiction rate is only lower among highly educated people with a degree.

Table 2 outlines the difference between the genders, following the listing of the SOGS. Research done previously about females concluded fewer addicted but more “at risk” cases than males [8]. We found 18.9 % of the 53 women that participated as addicted, while there were no gambling problems in 54.7 % of the females that were questioned. Despite this, 28.9% of the males are addicted and the “at risk” category is bigger than with females. The culture influences the differences between the genders, as we can see from previous studies. According to our results (Table 3), while the addiction rate is down by 10 percentage points in the case of females, but that is still not enough difference to consider it statistically remarkable. ($\chi^2 = 4.04$ $p = 0.11$)

We could only consider 33% of the 150 prisoners as problem-free with gambling in our 10-year-old research, and 30% are considered at risk (Table 4). Our freshly made review found 43% of people as problem-free which again decreased by 5% from 2014. The most significant change is among the addicted

Table 3: The content of participated people in terms of genders and their addiction-classification. (N=167 people)

Sex of respondent	SOGS category					
	not problematic		Problem gambler		addict	
	main	%	main	%	main	%
Man	43	37.70	38	33.30	33	28.90
Woman	29	54.70	14	26.40	10	18.90
Altogether	72	43.11	52	31.14	43	25.75

Source: own

female, where 40% (2014) has dropped to around 25%.

According to the measured results in the September of 2015 by Kutatópont Ltd., 83% of the population was not a problematic gambling player. According to the criteria of PGSI

Table 4: The results of the SOGS Hungarian prison examinations 2009-2019 (%)

Player group	Year		
	2009	2014	2019
not problematic	32.9	33.6	43.1
compromised	30.7	25.7	31.1
addicted, problematic player	36.4	40.7	25.8

Source: own

26% do not even play any gambling games, while 57% of the participants or respondents never experienced the examined effects. People from 18 years old and 9% of the older population are considered low-risk players, and the middle-risked community rate is reached 5%. The adult population has 3% of people who are gambling addicts based on the PSGI. We supposed that the prisoners had more severe addiction problems than ordinary civilians. Other addictions like alcohol, drugs can measure this (Table 5).

In the previous two turns of our research, we asked the question: Has the gambling activity influenced the crime action? Now, 10.8% answered yes, while in 2014, this was 12.14%, which considering the distortions is not a huge dif-

Table 2: The demographic content of the participated people in terms of age groups and qualifications. (N=167)

age	main	%	addict	%	Educational attainment	main	%	addict	%
18-30 years	45	26.9	16	35.56	primary schools	63	37.7	17	26.98
31-35 years	16	9.6	1	6.25	vocational training	58	34.7	16	27.59
36-40 years	34	20.4	10	29.41	graduation	33	19.8	9	27.27
41-62 years	63	37.7	15	23.81	diploma	12	7.2	1	8.33
63 or older	6	3.6	0	0	unknown	1	0.6		
unknown	3	1.8							

Source: own

Table 5: The answers given to the passion-illness. (%)

year	alcohol	drug	alcohol and drugs	gambling	other
2009	12.85	19.3	5.71	12.14	12.1
2014	12.85	21.4	4.28	9.28	10.7
2019	10.2	22.2	4.9	16.2	18.4

Source: own

ference.

In the SOGS test, the participants selected most of the time the "over-spending" which means that he/she played more than the expected or planned originally (40%). Another standard answer was that he/she felt guilty about the consequences of gambling (35%). In the case of the addicted people, next to the over-spending (93%), they claimed that they felt their behaviour as a problem (86%).

In figure 1, we can see that in the case of addicted people, the rate of overspending is systematically higher while in case of "at risk" category this is mostly equal between other kinds of bets. The 68% of the non-problematic gamblers played not at all or with a bet under 1000 HUF (3.5USD). The answer "100 HUF or a lower amount" is not reliable because with the current legally purchased game opportunities are more expensive than this threshold amount.

Analysing the relevant spending categories with the earlier research year's results (Table 6), we can see that there are minor differences. The U-formed spending is still existing meaning that the smaller amount of spending is more frequent between the addicted people. In cases when the spending is above 10.000 HUF (35USD) a few weeks are enough to endanger and influence the gambler or his/her family life if we consider an average level of income.

In the case of addicts, most of the game options are more popular (Table 7). But the best option is still the slot machines followed by direct fortune tickets. There are gender differences between the game types. While the slot machines and fortune tickets are popular among males; these are only middle-popular for female members. Next to the fortune tickets, they also prefer the lottery.

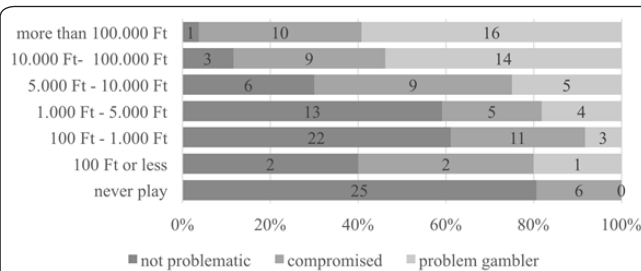


Figure 1: The number of gamblers in the SOGS categories, in terms of the highest played bet.*

*Approximately 1 USD is 300 HUF or 1 Eur is 350 HUF, 1 national lottery game is 1 USD

Source: own

Our research from 2014 show that when addicted people run out of resources, they choose to sell belongings from the household or other personal belongings to cover their next bets. In our current study, we reviewed the behaviour in the case when there is no more money left. Non-problematic people did not experience any issue and does not reach for additional funding.

Table 7: The frequency of each gaming type according to the SOGS gambler categories.

	not problematic	Problem gambler	ad-dict	alto-gether
card	1	5	9	15
horserace	0	0	3	3
Sports Betting	3	3	14	20
cube	0	2	8	10
casino	0	2	11	13
lottery	5	9	9	23
bingo	0	1	4	5
stock exchange	0	0	1	1
game machine	0	8	21	29
bowling, billiards, golf	3	5	6	14
lottery ticket	4	7	20	31
other game	1	0	3	4

Source: own

Table 6: The values put into a bet and the addicted people in those categories, and the changes with this (2009-2014-2019)

maximum amount played (HUF*)	2009 (%)	addict (person)	2014 (%)	addict (person)	2019 (%)	addict (person)
100-999	18.1	0	22.9	6	21.6	3
1000-4999	11.6	4	14.3	7	13.2	4
5000-9999	17.4	9	11.4	9	12.0	5
10000-100000	13.8	15	17.1	7	15.6	14
Over 100,000	23.9	22	16.4	17	16.2	16

*Approximately 1 USD is 300 HUF or 1 Eur is 350 HUF, 1 national lottery game is 1 USD

Source: own

This can be a remarkable sign, which draws the community's attention, that the addiction must be handled. In table 8, we can see that the "at risk" people regularly get money from the "family budget." At the same time, the addicts turn to further relationships, and selling personality is highly frequent as well as the previous investigations.

Most of the participants were currently jailed for theft; although these crimes usually have a more moderate penalty. The data from previous years are not reliable because not just the participants but the examined institutes were changed. (For them, the most important thing is the identification with

Table 8: Ways of refilling the money budget in the SOGS gambler categories.

	Problem gambler		addict	
	N	%	N	%
A way to make extra money				
from household money	7	38.9%	14	37.8%
from your spouse / partner	5	27.8%	18	48.6%
relatives or father-in-law, mother-in-law	2	11.1%	19	51.4%
from a bank or credit institution	1	5.6%	9	24.3%
credit card	1	5.6%	11	29.7%
usury	0	0.0%	10	27.0%
sold bonds and securities	1	5.6%	2	5.4%
sold his personal or family property	2	11.1%	27	73.0%
tried to use non-existent cover	1	5.6%	15	40.5%

Source: own

the addiction, the robbery is high, based on the comparison by the Bonferroni-correction.) This means that only 8.6% is sentenced for robbery from the non-problematic person category. In the "at risk" category, the number is 14 % and in the addicted person category, the number is 30.2% respectively. So we can suppose that the passion for gambling influences the opportunity that the player needs the money even with violence. Those who signed "other crimes" (59) have given a specific answer, mostly fraud. Interesting fact for further analyses, that we found fewer cases in connection with drugs but more crimes including counter-life (harming life) crimes. This can mean to us that who is a gambling addict can be coherent to Impulse control disorder [9].

In connection with committed crimes (Table 9), we questioned if the perpetrator is recidivous or not, and the answers were 50/50 yes or no. Based on the SOGS categories, people who are addicted, mostly recidivous as well. ($\chi^2 = 10.412$, $p=0.005$). However, if we put the data into comparison by genders, then it is clear to see that the coherence is only significant in the male section, the female category is not relevant. ($\chi^2 = 4.565$, $p = 0.102$)

We can find a correlation between the categories of the SOGS and the self-confess gambling addiction ($r = 0.37$, $p:0.01$) currently. First, this validates the test, secondly orientates in practice, that these claims of the prisoners are usually

Table 9: The exterminated perpetrator in terms of crime groups

crime	2014		2009		2019	
	main	%	main	%	main	%
burglary	12	7.3	13	7.8	11	6.7
assault	25	15.2	13	7.8	22	13.5
robbery	45	27.4	30	18.0	26	16.0
theft	26	15.9	46	27.5	41	25.2
truculence	9	5.5	18	10,8	17	10.4
other	47	28.7	47	28,1	87	53.4

Source: own

reliable. It is essential to react to these signs, especially when there is no screening or individual measurement option for gambling addiction.

In the human-connection sphere, the non-problematic gamblers, most of the time in friend communities, have met people with gambling addiction. In the addicted category, the addiction of brother/sister is more frequent, next to that friends, relatives, and the father is happened to be a gambling addict. In the past, any kind of addiction 30% of the non-problematic and the "at risk" gamblers played, while with the addicts, this number is 45%, but this difference is not significant. Circumstances that we monitored are the previous labour contract or the decision for raising a child but cannot find a connection between them and the gambling addiction.

Summary

To summarize, compared the 5 and 10 years-ago monitored results and the fresh 2019 one, we could declare that the gambling addiction rate is dropped 10% in the prison population. In our opinion, the main reason behind this is that in this current monitoring program, most of the participant was a woman. In the 2014 examination, there were only ten women participants; in 2019 this number was 53. From this information, we can conclude that gambling addiction impacts two thirds of men and half of the women prisoners. We can also declare that in the future, we should monitor the different gaming habits and attitudes separately by gender. As we saw during the test filling the woman section was behaving disorderly. They were talking with each other and were looking at the other's answers and took twice as much time to complete the test than on the male side. We could see a minor difference in connection with the game types as well.

In connection with crimes, we could make an apparent coherence in between the gambling addicts and robbery. In addition to this, the searchers must pay attention to the life-harming crimes too because according to the open answers, that area is coherent surely. In terms of drug usage, the rate is just a few percent higher with gambling addicts, but this is not relevant statistically. Also, have to mention that more people claimed themselves as drug addicts (43%) than gambling addicts (31.4%), but this is not accurate. In our examination,

the SOGS test claimed addiction in 56.4% of the cases. The gambling addiction has an effect on half of the prisoner's life, which needs to be considered when reintegrating the prisoner.

We can underline coherence taking the three examinations altogether into account. We need to ask the person himself about his condition, how he feels, looks at the situation, does he claim himself as an addict, because we could always see a strong correlation between the self-confess and the results of the test. Gamblers usually – similarly to the previous results – get the amount of the betting money from the household budget, family members, and further go with the addiction, relatives, banks become an option as well. With addicted people, usually a frequent solution selling the personal belongings for having access to the game. Furthermore, even if these ways are empty now the addict is stepping on the path of crime. Only 5–6% of the non-problematic gamblers and gamblers at risk claimed that the crime was in connection with gambling, but 28% of the addicted prisoners said that gambling influenced the crime. Based on the pre-created categories, the common crime is robbery. However, as we analysed the answers, it turned out that life-harming crimes can be coherent with gambling. So, monitoring this in the future is necessary. The intertwining of gambling and crime is not surprising based on ordinary and literature experience either. The most important limiting factor of our research among inmates is that the placement of convicts is influenced by several factors: there is no researcher influence on which institutions we receive admission to and anywhere convicts can only be included voluntarily. This limitation is also the main reason for different gender ratio in different years. Gender ratio is outside of researcher influence, but we think it is important to add this information to help of future research instead of concealing it. Despite all these limitations, we consider it important to shed light on the processes taking place in this area to ensure responsible gaming.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they do not have any interests that could constitute a real, potential or apparent conflict of interest with respect to their involvement in the publication. The authors also declare that they do not have any financial or other relations (e.g., directorship, consultancy, or speaker fee) with companies, trade associations, unions or groups (including civic associations and public interest groups) that may gain or lose financially from the results or conclusions in the study. Sources of funding are acknowledged.

Ethical Approval All procedures performed in this study involving human participants were in accordance with the ethical standards of University's Research Ethics Board and with the 1975 Helsinki

Declaration. Informed Consent Informed consent was obtained from all participants.

References

1. Banks J, Waters J, Andersson C, Olive V. 2019. Prevalence of gambling disorder among prisoners: a systematic review. *International Journal of Offender Therapy and Comparative Criminology* 64(12): 1199-1216. <https://doi.org/10.1177/0306624X19862430>
2. National Penitentiary Command (2015-2019) Prison Statistics Review Budapest: National Penitentiary Command (BvOP), Office, Strategic, Analysis and Planning Department
3. Lind K, Salonen AH, Järvinen-Tassopoulos J, Alho H, Castrén S. 2019. Problem gambling and support preferences among Finnish prisoners: a pilot study in an adult correctional population, *Int J Prison Health* 15(4): 316–331. <https://doi.org/10.1108/IJPH-07-2018-0041>
4. Castrén S, Heiskanen, M., Salonen, A. H. 2018. Trends in gambling participation and gambling severity among Finnish men and women: cross-sectional population surveys in 2007, 2010 and 2015. *BMJ Open* 8(8): e022129. <https://doi.org/10.1136/bmjopen-2018-022129>
5. Castrén S, Lind K, Järvinen-Tassopoulos J, Alho H, Salonen A. H. 2019. How to support prison workers' perceived readiness to identify and respond to possible gambling problems: a pilot study from two Finnish prisons. *International Journal of Mental Health and Addiction* 19: 478-493. <https://doi.org/10.1007/s11469-019-00083-4>
6. Hing N, Nuske E, Breen H. 2017. A review of research into problem gambling amongst Australian women. In: Bowden-Jones H, Prever F (eds) *Gambling disorders in women: an international female perspective*. Routledge, New York, USA.
7. Lesieur HR, Blume SB. 1987. The South Oaks Gambling Screen (SOGS): A new instrument for the identification of pathological gamblers. *Am J Psychiatry* 144(9): 1184-1188. <https://doi.org/10.1176/ajp.144.9.1184>
8. Hing N, Russell A, Tolchard B, Nower L. 2016. Risk factors for gambling problems: an analysis by gender. *J Gambl Stud* 32(2): 511-534. <https://doi.org/10.1007/s10899-015-9548-8>
9. Sharman S, Clark L, Roberts A, Michalczuk R, Cocks R, (2019). Heterogeneity in disordered gambling: decision-making and impulsivity in gamblers grouped by preferred form. *Front Psychiatry* 10: 588. <https://doi.org/10.3389/fpsy.2019.00588>