

The Research on Responsible Gambling at Osaka IR Casino: A Perspective on Gambling Addiction

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Abstracts

Governments and industry operators need to implement responsible gambling (RG) initiatives and programs to minimize gambling-related problems. RG initiatives and programs must help gamblers maintain their gambling expenditures at a reasonable level. The authors conducted an online multi-user survey on responsible gambling in the Osaka Integrated Resort (IR) in December 2023. In comparing public games, lotteries (including numbers, etc.), and pachinko/pachislot, we found no elements that were uniquely problematic for pachinko/pachislot. Pachinko and pachislot had the lowest persistence rates compared to lotteries (including numbers, etc.) and public gambling and had the highest recovery rates when participants quit gambling for one year or more. Osaka prefectural government administrators, who consider pachinko/pachislot to be problematic without any scientific basis, are conspicuous in their statements regarding the Osaka IR casino. RG is intended to reduce the incidence of social risks associated with gambling. Initiatives and programs that lack scientific rationale do not provide a solution to gambling dependence. The customer base is expected to differ significantly between pachinko/pachislot, where more than 80% of participants have an annual income of 6 million yen or less, and casinos, which are structured according to the Pareto principle (80:20 rule). Countermeasures against gambling addiction in the Osaka IR casino must be tailored to the clientele who play at the casino.

Keywords: Responsible Gambling, Osaka IR Casino, Gambling Addiction, Pachinko/Pachislot

Introduction

In Japan, the Act on Promotion of Development of Specified Integrated Resort Districts (IR Promotion Act: IRPA) came into effect on December 26, 2016, and the Act on Development of Specified Integrated Resort Districts (IR Development Act: IRDA) was enacted on July 27, 2018. IRDA attracted much attention because it seeks to institutionalize casinos, which were previously illegal. Gambling addiction is often a topic of discussion in media coverage of Osaka IR-related projects because the pretext for opposing the establishment of casinos is gambling addiction¹⁾ and money laundering. This is a situation in which the problem of gambling addiction is considered to have been politically exploited.

The candidate cities for establishing casinos in Japan were Odaiba (Tokyo Prefecture), Yokohama (Kanagawa Prefecture), Yumesu (Osaka Prefecture), Tokoname (Aichi Prefecture), Wakayama (Wakayama Prefecture), and Sasebo (Nagasaki Prefecture). While opponents of casinos highlight gambling addiction as a reason for opposition, proponents of casinos have attempted to dodge public criticism by claiming that gambling addiction is caused by pachinko and pachislot. In April 2023, Osaka IR was approved by the government. In connection with the approving the Osaka IR casino, the Osaka City Council condemned the pachinko industry by passing an “opinion letter requesting that pachinko, pachislot, and other forms of gambling be placed under the category of gambling and that appropriate measures be promoted to prevent gambling addiction, etc.”²⁾ The opinion letter expresses, without providing specific evidence, that “many gambling addicts are addicted to pachinko, pachislot, Internet casinos, and online casinos, etc.” A survey of Osaka residents conducted by several newspapers in April 2023 found that approximately 40%³⁾ of respondents were opposed to the Osaka IR. It is believed that the purpose of the opinion letter was to manipulate information to fend off the opinions of opponents.

The authors of the present study conducted an online survey of 10,000 people in Osaka Prefecture in December 2023 regarding gambling addiction and the Osaka IR casino. This study analyzed the survey results to determine the extent to which responsible gambling practices at the Osaka IR casino, such as the “6,000 yen admission fee” and mandatory “presentation of My Number (personal ID number),” will help eliminate social risks from gambling.

Literature Review

Ladouceura et al. (2017) found that governments and industry operators conduct RG initiatives and programs to minimize problems associated with gambling and that RG initiatives and programs are. They aim to reduce the incidence of social risks associated with gambling by helping gamblers to maintain their spending within a reasonable range. However, many of those programs and initiatives are supported by little or no scientific evidence. Smith and Rubenstein (2011) point out that the gambling addiction prevention measures provided by the government and the gambling industry have made little progress toward RG. Williams et al. (2012) describe how many speculative RG activities continue to be implemented despite the lack of empirical evidence supporting their effectiveness. Ladouceura et al. (2017) stress that programs should be developed based on the existing body of scientific evidence. The most problematic aspect of IR-related projects is that they arouse public anxiety about gambling addiction but provide no objective data from scientific research.

For example, Osaka Prefecture modeled its Osaka IR casino on the Singaporean example, reporting that the “National Addiction Management Agency of Singapore (NAMS) reported a decrease in gambling addiction.”⁴⁾ Tsuruta et al. (2017) chronologically

examined the process of casino legalization in Singapore. They conclude that, regarding measures to address social risks, the discussion ends with the unsubstantiated claim by the prime minister (Lee Hsien Loong) that the total number of dependent patients is unlikely to increase, and while successes related to development are discussed with evidence, there is no evidence-based discussion of the social risks.

Winslow et al. (2015) report that measures of responsible gambling have reduced the prevalence of gambling addiction in Singapore. However, according to Jia (2015), “The Theye Hua Kwan Problem Gambling Recovery Centre and the National Addictions Management Service at the Institute of Mental Health reported a 60-percent increase in cases of problem gambling between 2012 and 2014, compared to the period between 2009 and 2011.”⁵⁾ Amid such conflicting reports, as Tsuruta et al. (2017) point out, we must scrutinize the reliability of Singapore’s NAMS data and investigate the extent to which the example of Singapore, where the gambling situation differs from that of Japan, can be adapted to Japan.

Method

The authors conducted an online survey on responsible gambling related to the Osaka IR (Osaka IR Survey). The survey period was December 22, 2023, to December 26, 2023. The Osaka IR Survey was distributed to 156,290 participants residing in Osaka Prefecture and was closed when the number of valid responses reached 10,000 potential respondents. The survey items included 9 basic items (gender, occupation, annual income, etc.) and 36 gambling-related items (gambling activity, time spent gambling, amount spent, gambling screens, etc.), including items related to the Osaka IR casino. The authors also conducted an online national survey on gambling addiction in 2020 (Hayano Survey, 2020).⁶⁾ In the present paper, the results of the Hayano Survey 2020 are also reported.

Result

First, we report simple totals for two of the items related to the Osaka IR casino in the Osaka IR survey. The Osaka IR casino requires an admission fee of 6,000 yen and the presentation of My Number (personal ID number) as a major condition for responsible gambling.

Q. Would you like to visit or try to visit a casino in Japan? Please choose one that most closely matches your feelings. (Choose one)

- ① Under any conditions, I would like to visit.
- ② Under the current conditions, I would like to visit.
- ③ I would like to visit if the only condition is that I must present My Number.
- ④ If the only condition is the admission fee of 6,000 yen, I would like to visit.
- ⑤ I Would like to visit if neither My Number nor the admission fee is required.
- ⑥ I do not want to visit, regardless of the conditions.

Table 1 Intention to Participate in Osaka IR Casino

		①	②	③	④	⑤	⑥	Total
No gambling background	Frequency	31	54	107	14	203	2,670	3,079
	Expected frequency	73.6	155.2	284.2	53.3	426.1	2086.6	
	Adjusted standardized residual	-6.0	-10.0	-13.3	-6.5	-14.0	27.0	
No gambling background in the past year	Frequency	27	71	167	30	323	1604	2,222
	Expected frequency	53.1	112.0	205.1	38.4	307.5	1505.8	
	Adjusted standardized residual	-4.1	-4.5	-3.2	-1.6	1.1	5.1	
Gambling background in the past year	Frequency	181	379	649	129	858	2,503	4,699
	Expected frequency	112.3	236.8	433.7	81.3	650.0	3184.5	
	Adjusted residual	9.0	13.0	14.9	7.3	12.0	-29.2	
Total	Frequency	239	504	923	173	1384	6,777	10,000

Table 1 shows the total number of respondents who answered requirements to participate IR (① to ⑥ described above) across gambling experience backgrounds (“No gambling background,” “No gambling background in the last 1 year,” and “Gambling background in the last year”). Significant differences in are observed across the gambling experience backgrounds, $\chi^2(10, N = 10,000) = 1028.23, p < .001$.

Combining the groups ① + ② to represent those who are willing to participate, 2.8% (85/3,079) in no gambling background, 4.4% (98/2,222) in no gambling experience in the last 1 year backgrounds, and 11.9% (560/4,699) in a recent gambling experience background, showing the differences among the gambling experience background, $\chi^2(2, N = 10,000) = 591.17, p < .001$.

③ “If the only condition is that I must present My Number” indicates that the admission fee of 6,000 yen is a factor in their decision not to go. The condition of charging 6,000 yen for admission has a deterrent effect of 3.5%–13.8% depending on gambling background and has a low deterrent effect on the sample with no gambling background, $\chi^2(2, N = 10,000) = 573.88, p < .001$.

④ shows the deterrent effect of presenting My Number, but the deterrent effect of only presenting My Number ranged from 0.5% - 2.7% depending on the sample group, which is quite low. However, when both the admission fee of 6,000 yen and the presentation of My Number are required, the deterrent effect is 6.6%–18.3%, depending on the sample group, indicating a synergistic effect. In addition, the presentation of My Number can be a deterrent to excessive participation because it is used to manage information such as admission restrictions. However, this condition is a deterrent to casino participation, and whether it is a deterrent to gambling addiction remains unclear. The sample with a gambling background in the past year showed the highest intention rate to use the Osaka IR casino. Figure 1 shows the intention rate (① + ②) to visit the Osaka IR casino for

the sample that had gambled in the previous year by the type of gambling in which they had engaged. The intention rate of pachinko players to visit the Osaka IR casino was significantly lower than that of those who had engaged in public gambling (Table 2). It is less than half that of participants who had gambled on auto racing, which has the highest participation intention rate among participants who had engaged in public gambling.

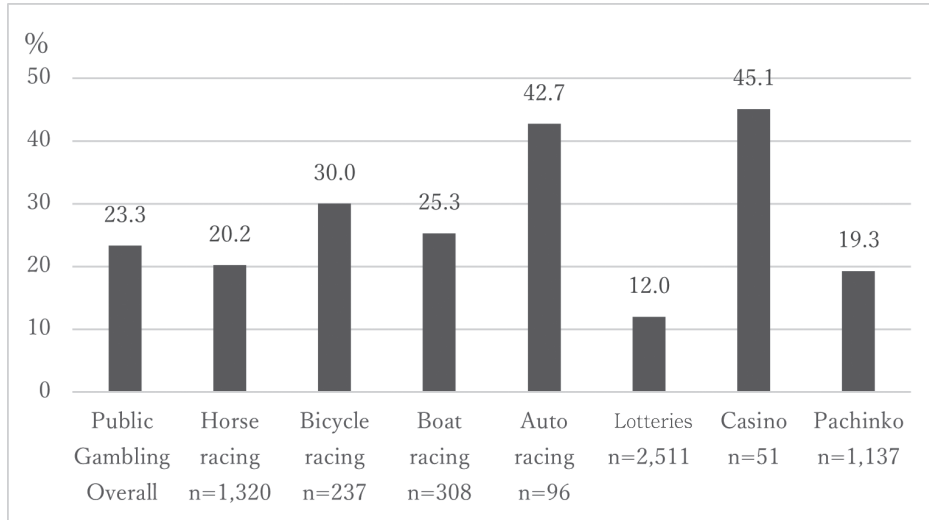


Figure 1 Intention to participate in Osaka IR casino by types of gambling (Gambling background in the past year)

As shown in Figure 2, pachinko is a gambling game played “to relieve stress,” “to while away the time,” and “to increase allowance.” Son (2023) points out that casinos are typically structured on the Pareto Principle (80:20 rule), and most people who gamble at casinos are wealthy, in the top 20% of income earners. In 2022, horse racing had 2.79 million visitors and 196.8 million total participants (from JRA HP),⁷⁾ pachinko had 7.7 million (from “Leisure White Paper 2023”), and lotteries had 50.05 million (from Lottery HP).⁸⁾ Considering the number of participants, targeting only pachinko as a target of gambling addiction measures will not help to combat gambling addiction. The main reason people play pachinko is to increase their allowance or to while away the time. Therefore, only a small percentage of pachinko players would pay the 6,000 yen admission fee to visit a casino.

Table 2 Intention to Visit Osaka IR Casino between Pachinko and Each Public Gambling Type

	df	Cramer’s V	χ^2	P-Value
Horse racing	1	0.030	7.03	<.001
Bicycle racing	1	0.120	72.86	<.001
Boat racing	1	0.088	41.89	<.001
Auto racing	1	0.139	89.40	<.001

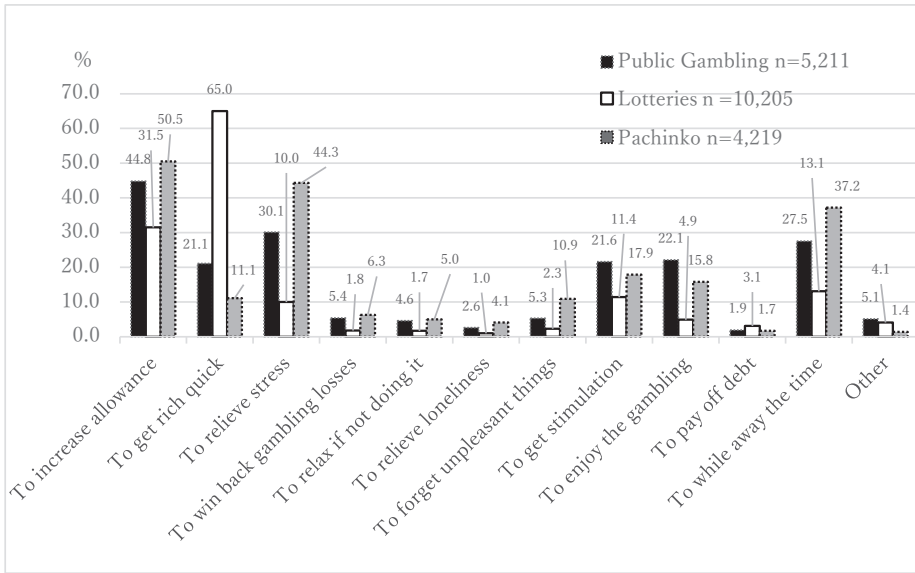


Figure 2 Purpose of Gambling Behavior from Hayano Survey 2020

Figure 3 shows the continuation rate (the percentage of the sample with a gambling background and a gambling background in the previous year) in The Osaka IR Survey. Lotteries have the highest continuation rate at 48.4%. Among public gambling, the continuation rate is 29.8% for boat races and 37.7% for auto races. On the other hand, Pachinko has the lowest retention rate at 26.0%. Thus, pachinko is a gambling activity with a significantly higher quit rate than lotteries and public gambling (Table 3).

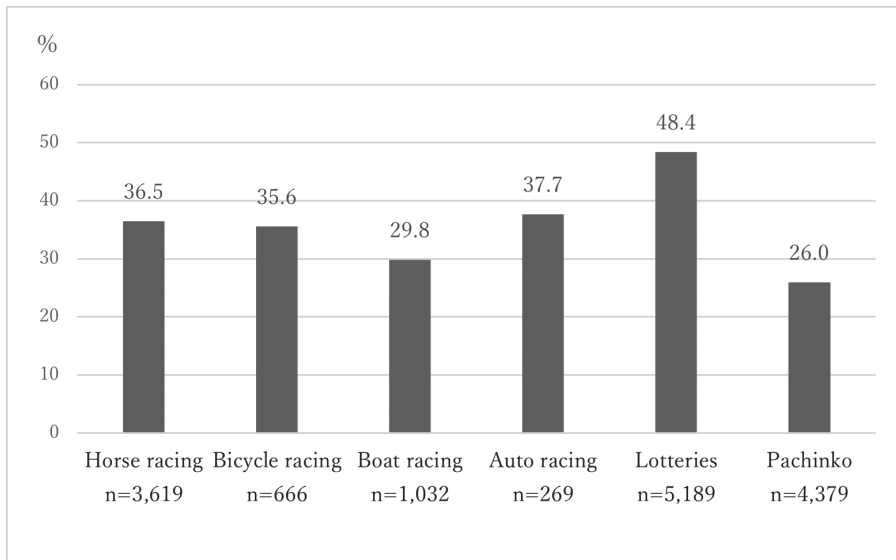


Figure 3 Continuation Rates by Gambling

Table 3 Differences of continuation Rates between Pachinko and each Gambling Type

	df	Cramer's V	χ^2	P-Value
Horse racing	1	0.114	103.34	<.001
Bicycle racing	1	0.073	27.00	<.001
Boat racing	1	0.034	6.42	<.001
Auto racing	1	0.051	12.29	<.001
Lotteries	1	0.230	506.23	<.001

This may be due in large part to the fact that the maximum investment for pachinko is about 100,000 yen per day, while there is no maximum investment for lotteries and public gambling. The gambling desire (*shakoshin*) of pachinko is lower than that of lotteries and public gambling, which do not have a maximum investment amount (Hayano 2021), and players cannot put all their winnings into the next bet. Pachinko is gambling by nature, but the expected reward effect (*shakosei*) is low, and the game is not highly sustainable.

The results of the tests of the differences in the population means by SOGS score for each gambling type are shown in Table 3. Figure 4 shows the South Oaks Gambling Screen (SOGS) score for each type of gambling, continued (with a gambling background in the past year) and not continued (no gambling background in the past year). In other words, it indicates the extent to which the SOGS score would decrease (i.e., gambling addiction would decrease) if the gambler had not engaged in that form of gambling for at least one year. Lotteries show little or no change between participation and non-participation. Participants who had gambled on horse racing achieved some success toward responsible gambling because the average SOGS score is 2.50, despite a history of gambling in the previous year. The continued sample for auto racing has an average score of over 5 points, which is above the level of a suspected gambling addiction. The SOGS scores for the bicycle, boat, and auto race continuation samples were high, ranging from 3.79-5.43. However, when they stopped participating in gambling, their SOGS scores dropped to around 2.4. The score for pachinko is 3.61 in the continuous sample, which is close to that of boat racing, but in the not continued sample, the score is down to 1.43, which is lower than the score for lotteries. Table 4 shows statistically significant differences on SOGS scores between continued and not continued samples. Table 5 confirms that the SOGS scores of the pachinko not-continued sample are not significantly different from those of the lottery not-continued sample but are significantly different from those of the public gambling sample.

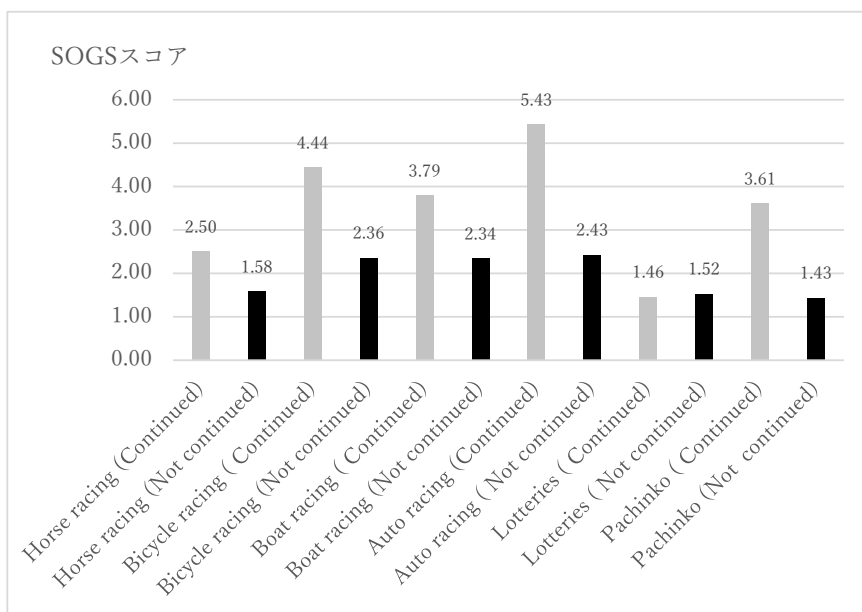


Figure 4 Average SOGS Scores Continued and Not Continued

Table 4 Hypothesis Testing for the Difference in the Population Proportions SOGS score difference between “Continued” and “Not Continued”

	Difference	U	df	P-value	± 99% confidence interval
Horse racing	0.92	9.33	3,615	<.001	0.254
Bicycle racing	2.08	7.15	664	<.001	0.751
Boat racing	1.45	6.25	1030	<.001	0.600
Auto racing	3.00	6.287	267	<.001	1.238
Lotteries	-0.06	0.895	5187	n.s.	0.184
Pachinko	2.18	23.13	4,377	<.001	0.243

Table 5 Hypothesis Testing for the Difference in the Population Proportions Difference between “Pachinko” and “Each Gambling” (Not Continued)

	Difference	U	df	P-value	± 99% confidence interval
Horse racing	-0.15	2.27	5538	<.005	0.168
Bicycle racing	-0.93	7.481	3669	<.001	0.320
Boat racing	-0.91	8.882	3964	<.001	0.263
Auto racing	-1.00	5.393	3413	<.001	0.476
Lotteries	-0.03	0.404	5751	n.s.	0.169

Based on a 2013 survey conducted by the Ministry of Health, Labor and Welfare’s Grant-in-Aid for Scientific Research, “5.36 million people are suspected to have gambling addiction” (Nihon Keizai Shimbun, 2014). The survey was not conditioned on gambling background in the previous year and included those who had SOGS \geq 5 at some point. Kurihama Medical and Addiction Center conducted an epidemiological survey on gambling

addiction in Japan in 2017 (10,000 people surveyed, 4,685 valid responses). In that survey, the percentage of SOGS \geq 5 was reported to be 3.6% (estimated 3.2 million) across lifetime and 0.8% (estimated 0.7 million) in the past year (Interim Summary of the Results of the National Epidemiological Survey on Gambling and Other forms of Dependence in Japan, 2017). In other words, the “across lifetime” value is approximately 4.57 times higher than that “in the past year.”

Discussion

From the Osaka IR survey and the Hayano 2020 survey, the authors analyzed the rate of (suspected) gambling addiction and the rate of desire to visit the Osaka IR casino for each type of gambling and found no particular problematic factors for pachinko. Moreover, the continuation rate for pachinko was lower than that for lotteries and public gambling, indicating a higher degree of recovery following cessation.

Measures against gambling addiction are important for responsible gambling. In the Osaka IR casino, the written opinion passed by the Osaka City Council states that “there are many addicts to pachinko, pachislot, Internet casinos, and online casinos,” indicating that the city is trying to promote measures based on unfounded prejudice. The juxtaposition of illegal Internet casinos and online casinos with pachinko and pachislot is also a malicious manipulation of information. Measures based on prejudice not only delay improvements but also cause harm. Promoting measures that prevent gambling addiction requires scientific evidence on all forms of gambling, including public gambling, lotteries, pachinko, and casinos.

Appendix

1. “IR: There is no guarantee that it will not lead to addiction. The head of an anti-IR organization explains why.” (Asahi Shimbun Digital, 2021.9.30), “The casino, with its mixed opinions¹. It is too late to argue against gambling. Doubts about the persistent concern about gambling addiction” (Sankei News, 2023.7.24), etc. Gambling addiction is discussed as a reason for opposition to the Osaka IR casino.
2. Osaka City HP <https://www.city.osaka.lg.jp/shikai/page/0000567710.html> (2023.9.28)
3. The survey was conducted in conjunction with the 2023 local elections. “Osaka Double Election Head Office Telephone Poll: More Favor IR Attraction than Oppose” (Mainichi Shimbun (Osaka), 2023.04.02). “Asahi survey finds majority of Osaka citizens and prefectural residents oppose IR bid” (Asahi Shimbun Digital 2023.04.03)
4. Osaka Prefecture HP <https://www.pref.osaka.lg.jp/irs-kikaku/gaiyou/izonsyoutaisaku.html> (Updated November 01, 2023, “Measures for Gambling Addiction)
5. The Singapore government attributes the increase to increased public awareness of gambling addiction and the promotion of help-seeking behavior.
6. A summary of the survey is provided in Hayano et al. (2021).

7. JRA HP https://www.jra.go.jp/company/about/outline/growth/pdf/g_22_01.pdf
 8. Lottery HP <https://www.takarakuji-official.jp/about/research/001.html>
- Lotteries include numbers, lotto, etc.

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大阪 IR カジノにおける 責任ギャンブルに関する研究 — ギャンブル依存の視点から —

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要 旨

政府および業界事業者は、ギャンブルに関連する問題を最小限に抑えるために、責任ギャンブル (RG) の取り組みやプログラムを実施する必要がある。責任ギャンブルの目的は、ギャンブルに関連する社会的リスクの発生を減らすことにあり、ギャンブル依存対策の有用性を論じるには、その取り組みやプログラムに関する科学的根拠を示すことが不可欠である。そして RG のイニシアティブやプログラムは、ギャンブル参加者がギャンブルへの支出を無理のない範囲で維持できるよう支援することが重要である。筆者らは、2023年4月に国の認定を受けた大阪 IR における責任ギャンブルに関するオンライン多人数調査を2023年12月に実施した。その結果、公営競技、宝くじ (ナンバーズなどを含む)、パチンコ・パチスロを比較した場合、特にパチンコ・パチスロだけが問題とされる要素は見いだせなかった。宝くじや公営競技とくらべてパチンコ・パチスロの継続率をもっとも低く、またそのギャンブル参加を1年以上やめた場合、パチンコ・パチスロの SOGS スコアが最も低かった。大阪府の行政関係者は、大阪 IR カジノによってもたらされる利益を謳う一方で、大阪 IR カジノに関して科学的根拠なしにパチンコ・パチスロだけを問題視する発言が目立つ。科学的根拠のない取り組みやプログラムでは、ギャンブル依存対策とはならない。参加者の80%以上が年収600万円以下であるパチンコ・パチスロと、パレートの法則 (80:20の法則) の構造をなすカジノでは、客層が大きく異なることが予想される。大阪 IR カジノのギャンブル依存対策では、カジノに参加する客層に合わせた対策が必要である。

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