



澳門大學
UNIVERSIDADE DE MACAU
UNIVERSITY OF MACAU

REPORT

on

A Study of Macao People's Participation in Gambling Activities 2019

Commissioned by
Social Welfare Bureau
Macao Special Administrative Region

Institute for the Study of Commercial Gaming
University of Macau

September 2019

Executive Summary

Commissioned by the Social Welfare Bureau, the Institute for the Study of Commercial Gaming of the University of Macau surveyed on Macao people's participation in gambling activities and assessed the prevalence rates of gambling disorder in Macao. By comparing the results with those of the previous studies, this survey aims to provide recommendations with regard to the gambling disorder prevention and treatment services and policies to the Social Welfare Bureau.

With the computerized-random-digit-dialing method adopted, this research successfully interviewed 2,003 Macao residents aged 18 or above. The findings are summarized below:

- After a slight increase in the 2016 survey (51.5%), the participation rate in gambling among Macao residents experienced a significant drop of about 10 percentage points to 40.9% in 2019. So far, this was the lowest rate ever recorded in similar surveys in Macao.
- Among the 2,003 respondents, only 725 of them (36.2%) had participation in “Commercial Gambling” in the past twelve months. After a slight increase in the 2016 survey (44.6%), the participation rate of “Commercial Gambling” in the current study experienced a drop of eight percentage points. So far, this was the lowest rate ever recorded in similar surveys in Macao.
- The relationship between gambling participation and the demographic characteristics of respondents found in the current research was consistent with those found in the previous studies. Male respondents aged between 25 and 34, employed, worked as technicians, or with higher monthly personal income were more likely to participate in gambling activities in the past year. Different from the previous study, respondents who were born in Macao or migrated to Macao at younger ages, worked in the gaming industry, and resided in government economical housing were more likely to participate in gambling activities.
- With refusal cases excluded from the analysis, the median monthly gambling expenditure of the 1,903 respondents was zero, which had remained unchanged since 2013. Furthermore, the median monthly gambling expenditure of the gambler decreased from MOP100 in 2016 to MOP83.3 in 2019. This drop represented a decrease of 16.7%. Furthermore, gamblers' median monthly expenditure on “Commercial Gambling” also decreased from MOP100 in 2016 to MOP50 in 2019.
- Compared with the 2016 survey, the participation in “Soccer/Basketball Betting” and “Chinese Lottery (Pacapio)” increased while “Online Gambling” remained unchanged in the current survey. Compared with the study in 2016, the participation in “Mark Six Lottery”, “Social Gambling”, “Slot Machine Parlor”, “Macao Casino”, “Horse Racing” and “Mahjong House” decreased in the current study. Among these activities, the decrease in the participation rate of “Mark Six Lottery” was the most significant. Besides, it is worth noting that the participation in “Social Gambling”, “Macao Casino”, and “Slot Machine Parlor” had decreased for five consecutive studies. “Arcade Games with Tokens / Points

Converted into Money (e.g. 'Fishing Arcade Game', 'Horse Racing Arcade Game', 'Poker Arcade Game' etc.)" which was included for the first time in the study had a participation rate of 0.7%.

- "Mark Six Lottery" (26.5%), "Social Gambling" (12.6%), "Macao Casino" (9.4%), "Soccer/Basketball Betting" (7.6%), and "Slot Machine Parlor" (4.8%) were the five most popular gambling activities in Macao. Different from the previous studies, for the first time, "Soccer/Basketball Betting" jumped from the fifth most popular gambling activity and replaced "Slot Machine Parlor" as the fourth most popular activity in Macao in the current study.
- Among the five most popular gambling activities, "Macao Casino" recorded the highest median monthly gambling expenditure (MOP231). This amount was 7.9 times higher than that of the "Mark Six Lottery" which had the lowest median monthly gambling expenditure (MOP29). "Social Gambling", "Slot Machine Parlor", and "Soccer/ Basketball Betting" each recorded a median monthly gambling expenditure of MOP83. Compared with the previous studies, the median monthly gambling expenditures of these activities recorded in the current study were the lowest since 2007. In fact, the median monthly gambling expenditure of "Mark Six Lottery" returned to the level recorded in the 2013 survey.
- The results of the current survey showed that demographic characteristics were related to participation in certain types of gambling. For instance, those who participated in "Mark Six Lottery" were mainly male, aged between 35 and 44, born in Macao or migrated to Macao at the age of one to nine years old, married, employed, worked as technicians, worked in the gaming industry, worked on shifts, with a monthly personal income between MOP15,001 and 50,000, resided in government economical housing or private housing. As for those who participated in "Social Gambling", they were mainly male, aged between 25 and 34 or between 55 and 64, born in Macao or migrated to Macao at younger ages, employed, and with a higher monthly personal income. As for those who participated in "Macao Casino", they were mainly male, migrated to Macao between 1 to 9 years old, married, employed, worked as technicians, and lived in government economical housing. As for those who participated in "Soccer/Basketball Betting", they were mainly male, young, born in Macao or migrated to Macao at younger ages, with secondary education or post-graduate degrees, still single, students or out-of-school teenagers, worked in the gaming industry, and with a higher monthly personal income. As for "Slot Machine Parlor", different from the previous studies, demographic characteristics were not significantly related to its participation in the current study. However, it should be noted that due to the limited number of respondents participating in this activity, the relationship between some demographic characteristics and its participation did not go through cross-tabulation and chi-square analysis.
- Consistent with the previous studies, "hope to win" was the primary reason driving respondents to participate in "Mark Six Lottery", while "social gathering" and "entertainment" were the primary reasons to participate in "Social Gambling". As for "Macao Casino", "hope to win" and "entertainment" were the major reasons for participation. As for "Soccer/Basketball Betting" and "Slot Machine Parlor", "entertainment" served as the main reason for participation.

- Among the 153 respondents who participated in “*Soccer/Basketball Betting*” in the past twelve months, 148 of them reported participation in soccer betting. Among them, 76.3% claimed participation in soccer betting before the “*2018 FIFA World Cup*” football tournament. 98.7% claimed participation during the 2018 tournament, and 45.9% of them claimed participation even after the 2018 tournament. As for the relationship between the 2018 tournament and the frequency of participation in soccer betting, results showed that there were significant differences in the participation frequency before, during, and after the tournament ($F=83.76$; $p<.001$). Pairwise comparisons showed that respondents were more active in soccer betting during the 2018 tournament. However, the frequency of participation was significantly lower after the 2018 tournament. Not only that, this frequency was even lower than the frequency before the kick-off of this tournament. For those who continued soccer betting after the 2018 tournament, “*entertainment*” served as the primary driving force. Meanwhile, subsiding fads and losing interest in the 2018 tournament served as the major reason why participants did not continue betting soccer after the 2018 tournament.
- According to DSM-5, Gambling Disorder refers to persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the 9 criteria in a 12-month period. According to this definition, 16 out of 2,003 respondents (i.e., 0.8% of the sample) were classified as probable disordered gamblers. Among those probable disordered gamblers, 10 (0.5%) and 6 (0.3%) of them were classified as having mild and moderate Gambling Disorder, respectively. In this study, no respondent was classified as having severe Gambling Disorder. Compared with the prevalence rate of gambling disorder in 2016 (2.5%), the prevalence rate of the current study was 1.7 percentage points lower.
- Consistent with the findings of the previous studies, “*Macao Casino*” (71.8%) continued to be the most popular type of gambling participated by those with probable Gambling Disorder.
- Due to the limited number of probable disordered gamblers, this survey did not conduct cross-tabulation and chi-square analysis to determine the relationships between demographic characteristics and gambling disorder. For the same reason, this study did not examine the likelihood of a person becoming a probable disordered gambler with Logistic Regression analysis.
- Among the 2,003 respondents, 73.7% of them claimed that they had heard of the local gambling disorder prevention and treatment centres. This proportion was lower than those in 2016 (78.3%) and 2013 (83.0%). Among those who claimed to have heard of the local gambling disorder prevention and treatment centres, 30.9% of them were able to name the centres. While similar to the level in 2016 (32.3%), this proportion was significantly higher than that in 2013 (17.4%).

Conclusion

Commissioned by the Social Welfare Bureau, the Institute for the Study of Commercial Gaming of the University of Macau conducted a study titled “*A Study of Macao People's Participation in Gambling Activities 2019.*” Through the computerized-random-digit-dialing method, the Institute successfully interviewed 2,003 Macao residents aged 18 or over.

Results of the current study showed that the gambling participation of Macao residents dropped significantly to 40.9% after a slight increase to 51.5% in 2016. Compared with the participation rate recorded at the early stage of the liberalization of the gaming industry (67.9%), the participation rate in the current study showed a drop of 27 percentage points, and this participation rate was the lowest ever recorded in Macao. In contrast to Macao, Hong Kong recorded a participation rate of 61.5% in 2016.

“Mark Six Lottery”, “Social Gambling”, “Macao Casino”, “Soccer/Basketball Betting” and “Slot Machine Parlor” were still the five most popular types of gambling in Macao. Except “Soccer/Basketball Betting”, which had a slight increase of 1.2 percentage points in participation, all other types of gambling experienced a drop in participation when compared with the previous study. For the first time in history, “Soccer/Basketball Betting” had replaced “Slot Machine Parlor” to become the fourth most popular type of gambling activity. Besides, among the newly studied gambling activities, “Arcade Games with Tokens / Points Converted into Money (e.g. ‘Fishing Arcade Game’, ‘Horse Racing Arcade Game’, ‘Poker Arcade Game’ etc.)” had a participation rate of 0.7%. One of the gamblers claimed that this was the activity where he experienced the symptoms of Gambling Disorder. Even with such a low participation rate, there recorded one probable disordered gambler engaging in this activity. This finding is worthy of attention. Residents can participate in this kind of gambling activity in Arcade Game Centres, which can easily be located in the community. As such, it is expected that its participation is not only convenient but is also hidden under arcade games. It is suggested that government and non-government gambling disorder prevention and treatment centres promote and educate the public on the characteristics and the differences between games and gambling so as to reduce the incidence of gambling disorder arising from “Arcade Games”.

A review of the past studies found that “Social Gambling”, “Macao Casino”, and “Soccer/Basketball Betting” were more popular among men than among women. Furthermore, the prevalence of gambling disorder among men (1.3%) was also significantly higher. As such, it is suggested that relevant government and non-government organizations devise gambling disorder prevention activities for men and strengthen the promotion of “Responsible Gambling” messages to them. Furthermore, some non-government organizations are providing male-oriented services. It is suggested that on top of these services, these organizations introduce gambling disorder prevention and “Responsible Gambling” related activities and messages so as to make gambling disorder prevention among men more effective.

Results showed that respondents were more active in soccer betting during the “2018 FIFA World Cup” football tournament. However, the frequency of participation was significantly lower after the 2018 tournament. Not only that, this frequency was even lower than the frequency before the kick-off of this tournament. The above results merely reflected the participation in soccer betting before, during, and after the “2018 FIFA World Cup”. A review of “Soccer/Basketball Betting” participation rates between 2003 and 2019 and the corresponding years when “FIFA World Cup” was organized found no sign of the relationship between the development of “Soccer/Basketball Betting” behavior and “FIFA World Cup”. Results of the current study reflect only a single incident. Longitudinal study has to be carried out in order to conclude the effect of the “FIFA World Cup” on the development of soccer betting behavior. Even so, the fact that higher participation and higher participation frequency in soccer betting recorded during the tournament in 2018 merits concern. It is suggested to conduct a study to examine the effect of the “FIFA World Cup” on soccer betting. It is also suggested that government and non-government organizations strengthen their Responsible Gambling promotions during the “FIFA World Cup” event so as to alleviate the impact of the fads on soccer betting.

According to DSM-5, 16 out of 2,003 respondents exhibited four or more criteria meaning that they might have been classified as disordered gamblers. They accounted for 0.8% of the total sample (95% CI, 0.4 to 1.2). Compared with the prevalence rate of gambling disorder in 2016 (2.5%), the prevalence rate of the current study was 1.7 percentage points lower. In the current study, among those probable disordered gamblers, 10 (0.5%) and 6 (0.3%) of them were classified as having mild and moderate Gambling Disorder, respectively. No respondent was classified as having severe Gambling Disorder. Compared with the previous studies, there were significantly fewer disordered gamblers in this study. However, consistent with the previous findings, “Macao Casino” continued to be the most popular type of gambling participated by disordered gamblers while the prevalence of gambling disorder among men (1.3%) continued to be significantly higher than that of women (0.4%). Due to the limited number of probable disordered gamblers, this study did not examine the likelihood of a person becoming a probable disordered gambler with Logistic Regression analysis.

The Social Welfare Bureau, the Gaming Inspection and Coordination Bureau and the Institute for the Study of Commercial Gaming of the University of Macau have been working for ten consecutive years to promote Responsible Gambling. Possibly due to their efforts, participation in gambling, money spent on gambling, the number of days spent on gambling, and the prevalence of gambling disorder experienced significant drops in the current study. Furthermore, compared with places using the same gambling screen, Macao recorded the lowest gambling disorder prevalence rate among these latest studies. As such, it is suggested that promotions should continue in a sustainable manner. However, the awareness rate of “The Resilience Centre” or “government gambling disorder prevention and treatment centre” was slightly lower than those of the previous studies. As such, it is suggested to strengthen public education and promotion related to gambling disorder and help-seeking resources so as to make sure that those in need of help are able to seek help accordingly. Meanwhile, so doing also allows treatment centres to intervene promptly, thus helping to reduce the personal and social costs produced by gambling disorder.