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brief report

Gambling During the COVID-19 Pandemic: Experiences of Risks and Change Among Finnish Gamblers¹

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Abstract

This brief report presents results on how gamblers have experienced risks and change during the exceptional situation caused by the COVID-19 pandemic. The study is based on online questionnaires collected by the University of Helsinki and the Finnish Association for Substance Use Prevention ($N = 586$). Results show that the reduced availability of gambling in the Finnish context has limited its total consumption. The risk of gambling-related harms has therefore become less pressing during the pandemic. Although gambling is a public health risk in addition to being a harmful activity for the individual, the policy measures during the pandemic have revealed that, at a societal level, the risk of infection with COVID-19 was perceived as being a more serious problem than was the risk of gambling harms.

Keywords: COVID-19, gambling, risks, gambling harms, public health

Introduction

The onset of the COVID-19 pandemic in early 2020 led to wide restrictions on people's movements and interactions in public and private settings, including closures of gambling venues and cancellation of major sports betting events, to

¹This brief report is a shortened version of an article published earlier in Finnish: Järvinen-Tassopoulos et al. (2020). Rahapelaaminen koronapandemian aikana: kokemuksia riskeistä ja muutoksista [Gambling during the COVID-19 pandemic: Experiences of risks and changes]. *Tiede & edistys*, 4, 386–406. <http://www.tiedejaedistys.fi/images/Pdf-tiedostot/TE-2020-4-386-406-jarvinen-tassopoulos-ym-netti.pdf>

mitigate the risk of infection. Although COVID-19 is not the first health risk faced by Western societies in the last decades (e.g., bovine spongiform encephalopathy or “mad cow disease”; severe acute respiratory syndrome [SARS]; cf. Lupton, 2013), it has been the first major public health crisis to have affected the provision of gambling to this degree. Finland was no exception. In March 2020, the state-owned gambling company Veikkaus closed its gambling venues (Casino of Helsinki and gaming arcades) and electronic gambling machines (EGMs) placed in supermarkets, kiosks, and gas stations.

Research has thus far shown that these availability restrictions have reduced total gambling consumption in Finland and in the other Nordic countries (Håkansson, 2020; Lindner et al., 2020; Taloustutkimus, 2020). In Finland, gambling consumption also appears to not have shifted online following the closures of land-based gambling opportunities (Veikkaus, 2021), although in neighbouring Sweden, such shifts in consumption appear to have taken place (Lindner et al., 2020). The issue of problematic gambling remains open, with some evidence available regarding increased problems, in particular among those who have also experienced mental health problems or excessive alcohol use during the lockdown (Håkansson, 2020).

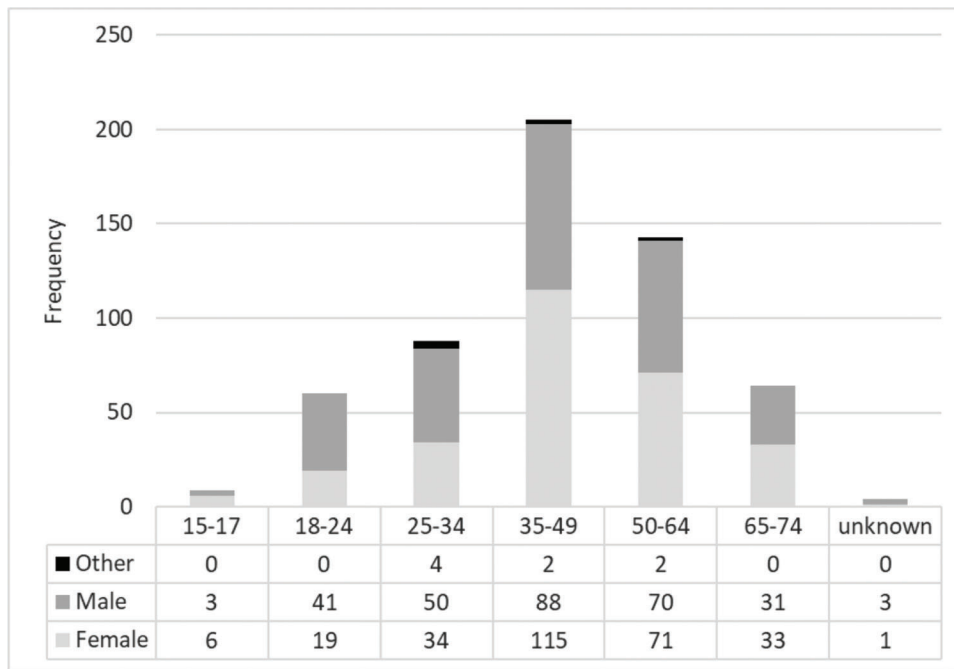
The current brief report presents an overview of the results of an article previously published in Finnish on how Finnish gamblers have experienced risks and changes related to gambling opportunities during the COVID-19 pandemic (Järvinen-Tassopoulos et al., 2020). The data consist of online questionnaires conducted by the University of Helsinki (UH) and the Finnish Association for Substance Use Prevention (EHYT) during the spring of 2020. The analysis focuses on changes in consumption patterns, experienced risks, marketing, and the closure of EGMs.

Method

The UH and the EHYT conducted two separate online questionnaires on gambling during the COVID-19 pandemic during the spring of 2020 (EHYT: April 14 to May 8; UH: April 16 to June 19), aimed mainly at gamblers and their concerned significant others. A total of 586 respondents completed the questionnaires (EHYT: $N = 465$; UH: $N = 121$). Participants were mainly recruited via online channels, including social media, online discussion forums, gambling help service websites, and newsletters. Both questionnaires included multiple-choice questions, open-ended questions, and background information. The respondents were aged between 15 and 74 years. The age and gender distribution of respondents is described in Figure 1.

The sample was not representative of the Finnish population and, notably, the number of gamblers was higher than in the general population. However, the respondents represented a group that had experienced changes related to gambling during COVID-19 as being important enough to participate in a survey. As a result, although the data may not be suitable for a population-level approach, it is important qualitative data on the experiences of gamblers during the lockdown period.

Figure 1
Age (Years) and Gender Distribution of Respondents.



Ethics approval for the study was sought from the University of Helsinki Ethical Review Board. The board issued a statement that the study did not require ethics approval, as it did not fall under the remit of research designs that require ethical review according to the Finnish National Board on Research Integrity guidelines. All participants were given information in the questionnaires about the study design and were informed that, by filling out the questionnaire, they were giving consent to the use of their answers in research. We did not collect data or keep records of those individuals who read the consent form and chose not to participate.

As both questionnaires consisted of slightly differing questions, the analysis was conducted by choosing questions from both questionnaires related to experiences of risks and changes. Table 1 itemizes the included questions, as well as how many answers were received. Open-ended questions were analysed by using the content analysis method (cf. Elo et al., 2014). We first removed blank responses and then grouped answers on the basis of similar themes that were then classified into categories. These categories and the multiple-choice questions are also described by using frequencies and percentages as descriptive tools.

The data were analysed by using qualitative content analysis. This data-driven content analysis approach consists of three steps: reduction, grouping, and abstraction (Tuomi & Sarajärvi, 2004). The reduction phase consisted of reducing the data to responses to open-ended questions. In the grouping phase, we grouped

Table 1
Questions Included in the Analysis and Number of Answers

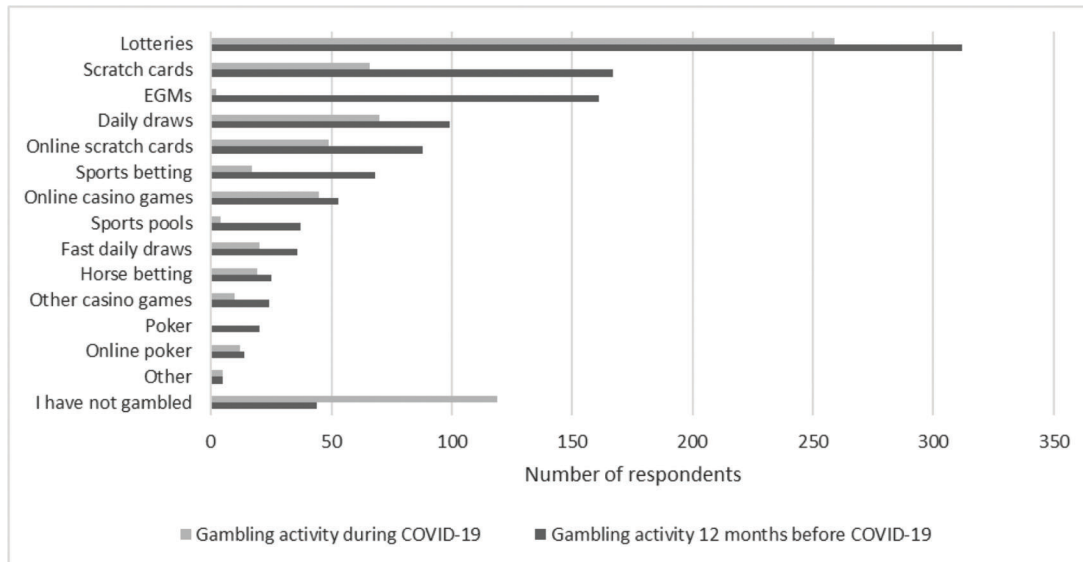
Questions	Answers/participants	Question type
EHYT questionnaire		
Which gambling games have you played since March 13?	421/465	Multiple choice
Has COVID-19 impacted the amounts of money you or your CO spend on gambling?	448/465	Multiple choice
Describe how COVID-19 has impacted your gambling. Have you, for example, stopped gambling, or moved online or to other games you did not use to play?	345/465	Open ended
Has the increase or decrease of your gambling during COVID-19 positively or negatively impacted your or your CO's social relationships, finances, mental health, etc.?	315/465	Open ended
Have you noticed changes in gambling marketing during COVID-19? Has marketing, for example, increased, decreased, or changed format?	301/465	Open ended
Should EGMs remain closed after COVID-19 or be reopened?	457/465	Multiple choice
UH questionnaire		
Has COVID-19 had an impact on which gambling provider you use to gamble? Describe in your own words.	57/121	Open ended
Describe in your own words how COVID-19 has impacted your gambling habits or your decision not to gamble.	67/121	Open ended
How have you experienced the closure of gambling venues and EGMs? Describe possible impacts.	87/121	Open ended
Describe in your own words how you have experienced gambling or instant loan marketing during COVID-19.	70/121	Open ended

Note. CO = Concerned other; EHYT = Finnish Association for Substance Use Prevention; UH = University of Helsinki.

the answers on the basis of thematic similarities and differences. Finally, we abstracted the data by linking it to our research questions.

The qualitative data were analysed by using inductive content analysis. This inductive approach consists of three main steps: preparation, organizing, and reporting (Elo & Kyngäs, 2008). The preparation phase consists of asking questions such as, What is happening? Why? and Who is speaking? The organizing process consists of open coding, creating categories, and abstraction. We gave the data codes with the help of Atlas.ti software, created categories of different codes, and abstracted the generated categories with content-characteristic words, such as “the risk of infection,” “financial risks,” “marketing,” and “EGM closures” (cf. Elo

Figure 2
Gambling Activity Before and During COVID-19 (N=421).



Note. EGMs = electronic gambling machines.

& Kyngäs, 2008). To support the qualitative analysis, we also present the results with descriptive statistics.

Results

Changes in Gambling Behaviour

The EHYT questionnaire prompted respondents about which gambling games they had played during the past 12 months before the onset of COVID-19, and which games they had played during the pandemic (from March 13 to the time of response). Figure 2 includes responses by gamblers ($N = 421$). During the pandemic, the number of non-gamblers increased and gambling in all product categories decreased. Although the time periods are not fully comparable, the results are in line with a representative population-level study by Taloustutkimus (2020) ($N = 1,004$) that also indicated an overall decrease in gambling involvement and money spent on gambling during COVID-19.

Changes in consumption patterns may affect gambling-related risks. Fast and continuous forms of gambling in particular, such as EGMs and casino games, are categorized as high-risk forms of gambling (Sulkunen et al., 2019). Population studies similarly show that EGMs, casino games online and offline, and sports betting cause the highest levels of harm (e.g., in Finland Salonen et al., 2020). At the same time, total gambling consumption has been connected to levels of harm at both individual (Markham et al., 2016) and population levels (Rossow, 2019;

Sulkunen et al., 2019). Decreased consumption in these product categories may therefore be reflected in lessened gambling-related harms and risks.

The Risk of Infection

COVID-19 is caused by the SARS-CoV-2 virus that spreads through close contact with other people via droplets, airborne aerosols, or contaminated surfaces (World Health Organization, 2021). Gambling venues are therefore high-risk locations. The elimination of all risks is not possible in society, and this has also been true of the coronavirus (cf. van Loon, 2002). Although the pathogen cannot be eradicated, authorities have nevertheless attempted to limit the risk of infection by closures of gambling opportunities in which people are in close contact with each other.

In our study, the risk of infection was discussed in questions related to the closures of gambling opportunities, notably EGMs. The spread of COVID-19 was described as having decreased gambling, not only due to closures of EGMs and venues, but also due to the fear of infection in public spaces such as kiosks and supermarkets:

“I’m too afraid to go to the kiosk, and anyway the machines are not open.”

There was surprising unanimity regarding the need to close gambling opportunities because similar measures had not been witnessed before in the Finnish context. The risk of infection was therefore considered to be more important than the risk of gambling harms, both politically and in the experiences of the respondents.

Financial Risks

The COVID-19 pandemic has not only caused damage to public health, but it has also put a halt to consumption, closed businesses, and increased the risk of unemployment or furlough. In the UH questionnaire, 10% of all respondents ($N = 121$) had been laid off or furloughed during the spring of 2020. Thirty-two percent had been working from home and 25% expressed concern for their financial situation. Financial insecurity was also described as having affected gambling, and many respondents had stopped or limited their gambling as a result of having reduced financial means:

“Being furloughed from my second job has limited my budget. I have not had the money to gamble, because otherwise I would not feed my family!”

Gambling both creates and increases financial inequalities (Mazar et al., 2018), and financial instability has previously been connected to increased gambling (see Håkansson et al., 2020). However, this risk did not seem to have materialized in our data, as most gamblers had limited their gambling. The risk was also possibly mitigated by temporary stricter limitations implemented during the spring of 2020 on

fast games provided by Veikkaus on the internet (Valtioneuvosto, 2020), as well as by closures of land-based EGMs:

“While the supermarkets [sic] EGMs have been closed, my gambling has decreased by 90 percent. I’ve gambled online a couple of times, but I spend much less time and money. The desire to gamble has largely disappeared.”

A small minority of respondents considered themselves professional or semi-professional poker players or sports bettors. In particular for sports bettors, the absence of sporting events during the spring of 2020 negatively affected their livelihood. Some had moved to betting on non-European leagues or e-sports, whereas others had stopped gambling altogether:

“My work, my livelihood has basically been completely interrupted because sports betting is on pause due to COVID.”

The situation was different for online poker players, who had found more opportunities to gamble. As seen in Figure 1, the consumption of gambling across all categories decreased, with only the level of online poker gambling remaining relatively stable. Similar results have been found in France (OFDT, 2020) where COVID-19 has resulted in decreases in all other gambling forms except online poker:

“I am a professional poker player, so the impact that COVID-19 has had is that I have worked [i.e., played poker] more.”

Marketing

Reduced gambling consumption and declining revenue from gambling may be connected to a risk of increased marketing efforts by gambling providers. Earlier Nordic studies have shown that marketing may increase interest in gambling, in particular in situations in which the market has not yet been saturated (Binde, 2014; Binde & Romild, 2019). Both the UH and EHYT questionnaires asked respondents about marketing. Of those who replied ($N = 371$), 26% felt that levels of gambling marketing had declined or remained the same. Ten percent of respondents felt that levels of gambling marketing had increased in comparison to the situation before COVID-19. The remainder did not want to or could not say. The result is in line with the observation of the UK Gambling Commission (2020) from the early months of the pandemic: Gamblers have seen similar or slightly lesser amounts of gambling advertising during COVID-19.

A closer look at our data revealed that experiences of gambling marketing varied depending on whether respondents referred to marketing efforts of the Finnish monopoly holder Veikkaus, or those of offshore providers. Respondents who had noticed more marketing mainly referred to offshore providers. However, as the results are based on the subjective experiences of gamblers, this finding may also be due to increased time spent on the internet and watching television during the lockdown. The UK Gambling Commission has similarly noted that during the first

month of the pandemic, gamblers spent more time online overall than non-gamblers have during the pandemic (Gambling Commission, 2020):

“I may have had the time to watch TV a bit more, and I have been shocked to discover an entire [pay TV] channel that is dedicated to gambling advertisement. It’s amazing. I’m not sure how much advertisement there is on other channels, but overall, it’s a lot. I don’t know if it has increased or if I am just seeing more of it.”

Decreases observed in Veikkaus marketing may also not be related to the pandemic, but rather to a previous commotion surrounding Veikkaus in 2019 when aggressive marketing practices by the monopoly holder were followed by notable reductions in the scope of marketing efforts in September 2019 (Veikkaus, 2019). However, respondents did note that what they called “advertisement in disguise,” such as the visibility of Veikkaus products in everyday spaces, had decreased alongside decreased gambling availability during the pandemic.

“Scratch card advertisement has disappeared from supermarket cash registers after they installed the plexiglass. They have stopped trying to push the lottery when you buy other Veikkaus products.”

EGM Closures

Finland has a wide availability of EGMs in convenience locations. Although Veikkaus started to reduce the number of EGMs in early 2020 following extensive criticism, Finland will still have comparatively high numbers of EGMs, in particular in public spaces, even after these reductions (Heiskanen et al., 2020). The EHYT questionnaire prompted respondents on whether they felt that EGM closures should be maintained even after the pandemic. Of the respondents ($N = 457$), 41% expressed that they would like to keep the EGMs shut, whereas 26% wanted EGMs to reopen. The remainder did not have a stance on the question.

An analysis of the open-ended questions showed that reopening was mainly supported as a gesture symbolizing the end of the pandemic, and closures were supported because the absence of EGMs was a relief to gamblers, in particular those experiencing problems:

“It has given me an incredible feeling of freedom when those games that usually occupy my mind during all my trips to the supermarket are shut down. I wish it were always like this.”

“The closure of convenience EGMs is a wonderful thing particularly for those who have gambling problems. Supermarkets should not be casinos. One-armed bandits [EGMs] belong to supervised gambling venues.”

The visibility and audibility of EGMs can increase the attractiveness of gambling in venues, including in supermarkets and kiosks (Järvinen-Tassopoulos, 2020). The closure of EGMs has given the opportunity to many to reconsider or even question whether EGMs belong in public spaces. At the same time, the future reopening of

EGMs was considered a risk that should and could be avoided. Research evidence also supports the removal of EGMs from convenience locations, in particular following the example of Norway, where convenience EGMs were removed in 2007 and later replaced with fewer and less addictive machines (e.g., Lund, 2009; Rossow & Hansen, 2016; see also Heiskanen et al., 2020).

Discussion and Conclusions

The aim of this brief report has been to describe the experiences of Finnish gamblers during the beginning of the COVID-19 pandemic (spring 2020). On a societal level, COVID-19 has shown that the risk of infection appears to be regarded more seriously than the risk of gambling harms. Even though gambling has been described as an epidemic (e.g., Churchill & Farrell, 2020) that can also cost lives and harm public health (Karlsson & Håkansson, 2018; Sulkunen et al., 2019), these risks have not previously closed harmful gambling venues and reduced access to products in Finland to this extent.

The analysis shows that gambling appears to have decreased, especially following closures of venues and EGMs, possibly along with financial insecurity. Some reductions in marketing have also occurred in Finland. Available data from our questionnaires and from the Veikkaus annual report for 2020 (Veikkaus, 2021) also indicate that gambling does not appear to have moved online. Although COVID-19 has increased the risks related to gambling by making land-based gambling an infection risk, closures of many harmful gambling products, such as EGMs, have been experienced as a decreasing factor in the risk of gambling harms. However, it is unclear how the reopening of EGMs will affect gambling behaviour.

Further studies are warranted to establish the effects of COVID-19 on gambling behaviour and gambling harms. More information is especially needed on how help services functioned during the pandemic (also Turner, 2020) and what kind of help problem gamblers and their concerned significant others required. It would also be useful to conduct cross-national comparisons on how restrictions on gambling opportunities and other policies during the pandemic have affected consumption patterns.

References

- Binde, P. (2014). *Gambling advertising: A critical research review*. The Responsible Gambling Trust. https://prism.ucalgary.ca/bitstream/handle/1880/51054/binde_rgt_report_gambling_advertising_2014_final_color_115p.pdf;jsessionid=39B28B5DF6AB63C9AF8876B3AF161B35?sequence=1
- Binde, P., & Romild, U. (2019). Self-reported negative influence of gambling advertising in a Swedish population-based sample. *Journal of Gambling Studies*, 35, 709–724. <https://doi.org/10.1007/s10899-018-9791-x>

Churchill, S. A., & Farrell, L. (2020). Australia's gambling epidemic: The role of neighbourhood ethnic diversity. *Journal of Gambling Studies*, 36, 97–118. <https://doi.org/10.1007/s10899-019-09865-w>

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open*, 4(1). <https://doi.org/10.1177/2158244014522633>

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62, 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>

Gambling Commission. (2020). *COVID-19 and its impact on gambling March 2020*. <https://www.gamblingcommission.gov.uk/statistics-and-research/publication/covid-19-and-its-impact-on-gambling-march-2020>.

Heiskanen, M., Hellman, M., Jaakkola, T., Kinnunen, J., Levitski, A., Lerkkanen, T., Marionneau, V., Oksanen, A., Pajula, M., & Salonen, A. (2020). *Rahapeliautomaattien ja automaattipelien haittojen hallinta: Rahapelien toimeenpanosta aiheutuvien haittariskien ja haittojen arviointiryhmän päätelmät haittojen hallinnan tehostamistarpeista ja ryhmänohjauksessa tehty selvitys* [The control of harm caused by slot machines and slot machine games: A report assembled by the group for assessments of harm and risk potential related to running of gambling operations, with conclusions by the group regarding the need for more effective measures]. Reports and Memorandums of the Ministry of Social Affairs and Health 25. <http://urn.fi/URN:ISBN:978-952-00-6873-8>

Håkansson, A. (2020). Changes in gambling behavior during the COVID-19 pandemic: A web survey study in Sweden. *International Journal of Environmental Research and Public Health*, 17(11). <https://doi.org/10.3390/ijerph17114013>

Håkansson, A., Fernández-Aranda, F., Menchón, J., Potenza, M., & Jiménez-Murcia, S. (2020). Gambling during the COVID-19 crisis: A cause for concern? *Journal of Addiction Medicine*, 14, e10–e12. <https://doi.org/10.1097/ADM.0000000000000690>

Järvinen-Tassopoulos, J. (2020). Les espaces de jeux d'argent : une analyse sociologique de la production de l'espace, du risque et de la prévention du jeu problématique [Spaces of gambling: A sociological analysis of the production of space, risk, and the prevention of problematic gambling]. *Sciences du Jeu*, 13. <https://doi.org/10.4000/sdj.2552>

Järvinen-Tassopoulos, J., Marionneau, V., & Lerkkanen, T. (2020). Rahapelaaminen koronapandemian aikana: kokemuksia riskeistä ja muutoksista [Gambling during the COVID-19 pandemic: Experiences of risks and changes]. *Tiede & edistys*, 4, 386–406. <http://www.tiedejaedistys.fi/images/Pdf-tiedostot/TE-2020-4-386-406-jarvinen-tassopoulos-ym-netti.pdf>

- Karlsson, A., & Håkansson, A. (2018). Gambling disorder, increased mortality, suicidality, and associated comorbidity: A longitudinal nationwide register study. *Journal of Behavioral Addictions, 7*, 1091–1099. <https://doi.org/10.1556/2006.7.2018.112>
- Lindner, P., Forsström, D., Jonsson, J., Berman, A. H., & Carlbring, P. (2020). Transitioning between online gambling modalities and decrease in total gambling activity, but no indication of increase in problematic online gambling intensity during the first phase of the COVID-19 outbreak in Sweden: A time series forecast study. *Frontiers in Public Health, 8*. <https://doi.org/10.3389/fpubh.2020.554542>
- Lund, I. (2009). Gambling behaviour and the prevalence of gambling problems in adult EGM gamblers when EGMs are banned: A natural experiment. *Journal of Gambling Studies, 25*, 215–225. <https://doi.org/10.1007/s10899-009-9127-y>
- Lupton, D. (2013). *Risk* (2nd ed.). Routledge.
- Markham, F., Young, M., & Doran, B. (2016). The relationship between player losses and gambling-related harm: Evidence from nationally representative cross-sectional surveys in four countries. *Addiction, 111*, 320–330. <https://doi.org/10.1111/add.13178>
- Mazar, A., Williams, R. J., Stanek, E. J., Zorn, M., & Volberg, R. A. (2018). The importance of friends and family to recreational gambling, at-risk gambling, and problem gambling. *BMC Public Health, 18*(1). <https://doi.org/10.1186/s12889-018-5988-2>
- OFDT. (2020). *Les addictions en France en temps de confinement* [Addictions in France during the lockdown period]. Tendances 139. <https://www.ofdt.fr/BDD/publications/docs/eftxof2a9.pdf>
- Rossow, I. (2019). The total consumption model applied to gambling: Empirical validity and implications for gambling policy. *Nordic Studies on Alcohol and Drugs, 36*, 66–76. <https://doi.org/10.1177%2F1455072518794016>
- Rossow, I., & Hansen, M. (2016). Gambling and gambling policy in Norway: An exceptional case. *Addiction, 111*(4), 593–598. <https://doi.org/10.1111/add.13172>
- Salonen, A., Hagfors, H., Lind, K., & Kontto, J. (2020). *Rahapelaaminen ja peliongelmat. Suomalaisten rahapelaaminen 2019 tilastoraportti 8/2020*. [Gambling and gambling problems. Finnish gambling 2019 statistical report 8/2020]. Terveystieteiden ja hyvinvoinnin laitos.
- Sulkunen, P., Babor, T., Cisneros Örnberg, J., Egerer, M., Hellman, M., Livingstone, C., Marionneau, V., Nikkinen, J., Orford, J., Room, R., & Rossow, I. (2019). *Setting limits: Gambling, science, and public policy*. Oxford University Press.

Taloustutkimus (2020). *Poikkeustilan aiheuttamat muutokset rahapelaamisessa* [Effects of the exceptional situation on gambling]. https://ehyt.fi/wp-content/uploads/2020/08/Taloustutkimus_Muutokset-rahapelaamisessa_Raportti_04_2020_s.pdf.

Tuomi, J. & Sarajärvi, A. (2004) *Laadullinen tutkimus ja sisällönanalyysi* [Qualitative research and content analysis]. Tammi.

Turner, N. E. (2020). Covid-19 and gambling in Ontario [editorial]. *Journal of Gambling Issues*, 44, 1–3. <https://doi.org/10.4309/jgi.2020.44.1>

Valtioneuvosto. (2020). *Netissä pelattavien Veikkaus oy:n rahapelien tappiorajoja lasketaan* [The loss limits of online Veikkaus products are lowered]. <https://valtioneuvosto.fi/-/1410869/netissa-pelattavien-veikkaus-oy-n-rahapelien-tappiorajoja-lasketaan>

van Loon, J. (2002). *Risk and technological culture: Towards a sociology of virulence*. Routledge.

Veikkaus. (2019, September 5). *Veikkauksen hallitukselta päätöksiä: yhtiön toimintaa kehitetään uusien toimenpitein* [Decision from Veikkaus' board: The company's operation will be developed with new measures]. https://www.veikkaus.fi/fi/yritys#!article/tiedotteet/yritys/2019/09-syyskuu/05_veikkaustoimenpiteet

Veikkaus (2021). *Vuosi- ja vastuullisuusraportti 2020* [Annual and responsibility report 2020]. https://cms.veikkaus.fi/site/binaries/content/assets/dokumentit/vuosikertomus/2020/vuosi_-ja-vastuullisuusraportti_2020.pdf

World Health Organization. (2021, March 18). *Coronavirus disease (COVID-19): How is it transmitted?* <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19-how-is-it-transmitted>

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