

RESEARCH

Open Access



# A qualitative investigation of the feasibility and acceptability of lower risk gambling guidelines

Michael Egerer<sup>1\*</sup> , Paula Jääskeläinen<sup>1</sup> , Virve Marionneau<sup>1</sup> , Riitta Matilainen<sup>2</sup> , Jussi Palomäki<sup>3,4</sup> , Eija Pietilä<sup>2</sup> , Mika Tsupari<sup>1</sup> , David C. Hodgins<sup>5</sup> , Matthew M. Young<sup>6,7,8</sup> and Sari Castrén<sup>9,10,11</sup>

## Abstract

Effective and comprehensive harm reduction strategies to mitigate gambling-related harms are needed worldwide. The development of such strategies is however resource intensive. Using existing models in multiple contexts would thus be advisable. This study is part of a larger project investigating the feasibility and acceptability of the Canadian Lower Risk Gambling Guidelines (LRGG) within a Finnish cultural context. The Canadian guidelines recommend not gambling more than 1% of one's household income, not gambling more than 4 days per month, and to avoid regularly gambling at more than 2 types of gambling products.

13 Focus group interviews were conducted ( $N=37$ , 23 women, 14 men) across five subpopulations: individuals gambling at no-risk/low-risk levels, individuals with past experiences of problematic gambling, concerned significant others of those with gambling problems, professional gamblers, and social workers and health care professionals. The analysis utilised a deductive approach.

While the subpopulations differed in their assessment of the LRGG in some regards, we were able to synthesise three concrete suggestions to adjust the Canadian LRGGs into the Finnish context. Participants proposed rephrasing the guidelines as follows: (1) Limit gambling to a fixed percentage of monthly personal income after taxes and other fixed expenses, (2) Restrict the number and duration of weekly gambling sessions, (3) Avoid regular participation in the most harmful forms of gambling, such as online casino games.

Overall, the LRGG were considered as useful also in the Finnish context. However, our results suggest that some culturally specific rewording may be advisable. The main challenge in the implementation of the LRGG is that respondents across groups considered the guidelines to be aimed at someone else. Implementation therefore requires clear communication that these guidelines are for all individuals who gamble, not only those experiencing problems.

**Keywords** Lower-risk gambling limits, Gambling guidelines, Focus-group interview, Qualitative, Feasibility, acceptability, Prevention

\*Correspondence:  
Michael Egerer  
michael.egerer@helsinki.fi

Full list of author information is available at the end of the article



© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

## Background

Gambling can cause severe harms to individuals and societies. Harms are typically more severe for those gambling frequently and heavily. However, even infrequent gambling may lead to experience of harm [1]. Negative effects from gambling also extend beyond the gamblers themselves. These effects include emotional and financial burdens on significant others [2–4]. On a broader societal scale, excessive and harmful gambling creates substantial costs related to treatment and prevention, as well as increasing criminal involvement, and adversely affecting productivity [5–8].

Prevention and reduction of these harms requires multilevel regulatory interventions. Existing research lends support for universal level measures, such as limitations on availability, exposure and industry practices. Effective policies also include age limits and constraints on product features like speed and immersive characteristics [9–11]. Additionally, mandatory limits on spending or losses and the possibility to self-exclude are important [9, 11–16]. Information and education campaigns may also be beneficial. However, research on the effectiveness of information campaigns has been limited at the population level [11]. This may be because most information campaigns have relied on generic slogans such as ‘gamble responsibly’. These often industry-developed slogans have typically not been grounded in empirical evidence or thorough assessment. They offer little communicative and preventive value, as they tend to be vague and open to interpretation [17].

From a public health standpoint, having a clear and unequivocal strategy for harm minimisation is vital and can be highly effective, as demonstrated by research in areas such as nutrition [18], smoking [19], road safety [20, 21], and physical exercise [22]. Clear quantitative parameters, known as low-risk drinking limits, have also been established in the field of alcohol consumption and have proven to have an informative impact [23–27].

In the field of gambling, a similar approach to quantitative limits and preventive efforts has been undertaken by a Canadian research group that developed and published the Lower Risk Gambling Guidelines in 2020 (LRGG) [28–31]. The development of the LRGG involved multiple phases of collaboration with a large group of Canadian experts and researchers, as well as an international panel of experts [28, 30, 32]. These guidelines are based on various systematic reviews, meta-analyses, insights from a Canadian advisory committee, an online survey with 10,000 participants, and qualitative interviews [28, 29, 33–35].

Overall, the LRGG consist of three parallel limits that should be followed concurrently: First, individuals should not gamble per month more than 1% of the yearly household income before tax. Second, individuals should

gamble no more than four days a month. Third, individuals should avoid participating in more than two types of gambling activities on a regular basis [28, 29]. Furthermore, the guidelines acknowledge the existence of particular risk populations, such as those experiencing anxiety, depression, or problems with alcohol, cannabis or other drugs. Similarly, those with a family history with gambling or substance use problems may be at particular risk. The guidelines may not be applicable to these groups.

The LRGG has been adapted to different contexts. The Australian low-risk gambling guidelines were published in 2020, employing the same methodology used in Canada, and resulting in outcomes very similar to the Canadian Lower Risk Guidelines [36]. The authors emphasized the need for widespread dissemination of these limits among gambling operators, regulators, and the public to foster a culture of responsible gambling [37]. Furthermore, they highlight the necessity of increasing awareness and education regarding low-risk gambling practices to help individuals assess their gambling activities. Recently, the applicability of LRGG for gambling harm reduction in England was also investigated, with results indicating that the Canadian LRGG may potentially be relevant. However, further research is needed to determine whether these guidelines are suitable for those who gamble [38].

The LRGG have been previously studied empirically in different settings. In the Canadian context, one prior study also used a qualitative approach, drawing on group and individual interviews focusing on self-control strategies among those who gamble [35]. This previous study found that self-control strategies played an important role in lower risk gambling and that clear messaging is needed on how self-control should be exerted. This study was part of the guideline development rather than an assessment of the finished guidelines. Testing the feasibility, suitability and acceptability of the LRGG in Finland follows a similar approach to the Canadian strategy, including quantitative and qualitative components. The Finnish context is well-suited to study the LRGG. Finland differs from the Canadian context to some extent, particularly with regard to the strong and established cultural normalisation of various forms of gambling, including wide availability of land-based electronic gambling machines (EGMs). The Finnish context differs from the Canadian one also in that online gambling is more prevalent [39–42].

A prior quantitative survey study in Finland has already examined the clarity, understandability, and usability of the guidelines among various respondent groups [43]. The findings indicated that the guidelines were generally viewed positively and deemed suitable within a Finnish cultural context. However, some differences emerged between subpopulations: Individuals at risk of gambling

problems evaluated the LRGG more negatively compared to other groups. Professionals in the field of gambling prevention were the most optimistic about the guidelines. Such differences in opinions amongst subpopulations were attributed to differences in levels and types of gambling experiences. Furthermore, the same quantitative study [43] also tested how respondents viewed the first LRGG recommendation on the proportion of income. In Finland, income is generally presented at personal rather than household-level in formal settings. The results showed that a recommendation based on personal rather than household income was viewed slightly more positively. This suggests that cultural sensitivity is needed when guidelines such as the LRGG are refined and implemented in new contexts.

The current study provides a more in-depth qualitative investigation to build on the findings of Palomäki and colleagues [43]. Our aim is to explore how different subpopulations perceive and accept the proposed LRGG recommendations in the Finnish context. The results are complementary to the earlier quantitative findings, but provide a more comprehensive understanding of how gambling prevention strategies can be targeted, and how the LRGG could be effectively implemented across subpopulations in Finland. The current study is the first qualitative evaluation of the feasibility and acceptability of the LRGG. It is also the first qualitative study investigating the views on the LRGG amongst different subpopulations, including those who gamble at different levels of severity, professional gamblers, social workers and healthcare professionals.

## Method, data and analysis

### Method

Our aim was to investigate the feasibility and acceptability of the LRGG in the Finnish context using a qualitative focus group interview methodology [44]. Our guiding research question was ‘does the LRGG work in Finland?’

Focus-group interviews are particularly useful in research settings emphasising interviewee points of view, as group situations allow for more natural and everyday conversation [45]. Groups also facilitate a more explorative and creative take on the study object. This creativity can be further facilitated by using tasks in stimulating participant discussion [46]. In comparison to asking the participants to express their opinions directly, working on small tasks allows interviewees to employ their understanding on and experience with gambling and gambling-related harm, and to communicate these with the other focus-group members in a goal-oriented way [47]. In our study, we employed two such tasks on the lower risk gambling guidelines.

Our interview protocol consisted of three parts (see Appendix for full protocol). First, at the beginning of the

interview, the interviewer(s) gave a short introduction on the LRGG. This introduction presented the aim of public health guidelines in general and presented the participants with the example of low risk drinking guidelines. Low risk drinking guidelines are already in established use in Finland. The aim of the short introduction was to ensure that participants had the necessary background information to work on the two interview tasks. A similar strategy has proven useful in previous focus-group interviews on gambling in Finland [48].

Second, we provided the interviewees with the first stimulation task. The goal of this task was for the participants to develop suitable low risk gambling guidelines for gambling in Finland. In practice, we presented the participants with a poster that showed the translated version of the original LRGG recommendations [49]. The poster listed recommendations on the amount spent, the frequency, and the number of different gambling products, as well as tips on safer gambling and situations in which it would be recommendable to avoid gambling completely. However, the specific limits recommended in the original LRGG were left blank in this mock poster. The aim of the task was therefore for the participants to discuss and fill the blanks. In addition, participants were encouraged to suggest other possible guidelines.

Third, we presented the participants with the second stimulation task. In this part, we provided the interviewees with the complete LRGG posters, including the original recommendations for lower risk gambling (in their Finnish translation). Participants were asked to compare the LRGG posters with their own lower risk gambling guidelines and to discuss possible differences. During this task, the interviewer(s) focused questions particularly on justifications on and explanations for any differences. Importantly, we did not communicate differences as critique of the guidelines developed by participants during the interview, but as possibilities originating from different gambling settings in Canada and Finland.

### Data

In total, we conducted 13 focus-groups with 37 participants (see Table 1). Our data collection strategy aimed at an inquiry of the multifarious life worlds of gambling in Finland. Our study included five different subpopulations concerned with gambling, recruited via differing channels:

1. **Individuals gambling at no– risk / low-risk levels.**

Informational campaigns are foremost a targeted intervention, aimed at those already gambling but at low or no risk levels [50]. Therefore, individuals gambling at no-risk/ low-risk levels are an important target population of the LRGG. The participants in these focus groups were recruited in conjunction

**Table 1** Focus groups included in the study

Type of group	Total groups	Female participants	Male participants	Total participants
Individuals gambling at no-risk/low risk levels	5	7	6	13
Individuals with past lived experience of problematic gambling	2	2	4	6
CSOs of individuals with gambling problems	2	4	0	4
Individuals identifying as professional gamblers	1	0	2	2
Social workers and health care professionals	3	10	2	12

with the quantitative study of the Finnish LRGG feasibility study [43]. Respondents in the quantitative study were asked for their consent to participate in a qualitative follow-up. Individuals with a PGSI score of 0–4 who consented were invited to participate in this study. In total, 97 persons were invited, and 13 participated in the interviews (in total 5 groups).

- 2. Individuals with past lived experience of problematic gambling.** Individuals who have experienced gambling-related problems have valuable expertise by experience on factors leading to harm. These individuals can also provide information on possible obstacles to following strategies requiring self-control, such as the LRGG. We recruited participants with lived experience of problematic gambling by contacting problem gambling help-services operating in Finland. In total, we recruited 6 participants in 2 groups. Although our interview protocol did not expose the interviewees to strong stimuli, we paid special attention to informing all participants about the nature of the focus group interviews and the centrality of the topic of gambling upon recruitment.
- 3. CSOs of individuals with gambling problems.** Concerned significant others (CSOs) and family members of individuals with gambling problems have first-hand experience of gambling harm. Prior research has shown that CSOs carry a significant burden of gambling harm but also play a crucial role in gambling harm prevention [2]. Our study included 4 CSO participants in 2 groups. Recruitment took place via help services operating in Finland.
- 4. Individuals identifying as professional gamblers.** Individuals who gamble at professional levels have valuable expertise on gambling [51]. For professional gamblers, self-control strategies form a part of their daily work and are crucial in ensuring an income. In total, we had 2 professional participants in 1 group. Recruitment of these participants took place via private contacts and snowballing. For our study, all individuals self-identifying as professional gamblers were included irrespective of their gambling product of choice. The participants who took part in the interviews gambled on sports betting and trotting-race betting.

- 5. Social workers and health care professionals encountering gambling-related problems in their work.** This final category included a range of professionals involved with gambling-related problems. Professionals may not have personal experience of gambling, but they face the negative consequences of gambling in their daily work. Professionals can therefore provide an additional perspective on the applicability, feasibility, and successful dissemination of LRGG from the vantage point of their own work. For our interviews, we included 12 professionals in 3 groups. Professionals were recruited by contacting Finnish wellbeing services counties to disseminate our invitation.

We conducted the focus group interviews remotely (11 groups) or in-person (2 groups) between December 2023 and June 2024. On average, interviews lasted approximately 80 min each.

### Analysis

All interviews were recorded, and tapes were transcribed verbatim by a professional transcription service. Our analysis was informed by a deductive approach but allowing for the inclusion of non-pre-determined topics. In practice, our analysis proceeded in three steps. First, four members of the team (ME, RM, VM, EP) independently coded each two different interviews based on a preliminary coding scheme informed by the prior study by Flores-Pajot and colleagues [35], and the LRGG recommendations. At this stage, each researcher assessed the applicability of this preliminary framework and was able to suggest any additional codes. All additions were discussed and agreed upon. Second, we cooperatively produced a refined codebook (see Appendix). This codebook was used in the thematic analysis of all interviews, conducted by PJ and double-checked by other team members to reach inter-coder agreement. Third, we drew all findings from the coding together and interpreted the results following a close re-reading and re-contextualisation of the coded sections [52].

Example quotations in the results section were translated by the authors. Any names, places or other identifying information have been altered to ensure the anonymity of the participants.

## Research ethics

This study adheres to the ethical guidelines of the Finnish Advisory Board of Research Conduct. Participation in the study was voluntary, and the study did not deviate from the principle of informed consent. Participants received oral and written information on the research before the interview commenced. Depending on the setting of the interview (remotely or in-person) consent was given orally or with a signed form. The study was approved by the Ethics committee of the Finnish Institute for Health and Welfare (THL/4626/6.02.01/2022). We also applied for and received research permits from concerned wellbeing services counties to contact social and healthcare professionals for recruitment.

## Results

We produced a thematic content analysis guided by two main research questions: how feasible are the existing LRGG guidelines in the Finnish context? How well do respondents accept these guidelines? Drawing on these research questions, our analysis first focuses on four themes related to **feasibility**, adhering closely to the structure of the original LRGG: (1) guideline related to amounts gambled; (2) guideline related to frequency of gambling; (3) guideline related to number of gambling types; and (4) recommendations for specific groups. The second part of our analysis focuses on three themes related to **acceptability**. These themes were: (1) presentation of the guidelines; (2) the dissemination of the guidelines (3) and the perceived realism and usefulness of the limits. Finally, our analysis identified an additional factor contributing to feasibility and acceptability alike: The perceived target population of the LRGG.

### Feasibility

#### *Guideline related to amounts gambled*

The first recommendation in the LRGG is **to not gamble more than 1% of yearly household income before tax per month**. This guideline was considered somewhat baffling amongst our interviewees. Our participants viewed 'household income' as a foreign concept in the Finnish context. They primarily attributed this to Finland's taxation system, which is based on personal income, even in cases of cohabitation or marriage. The high number of women in full-time employment in the Finnish context may also contribute to this understanding of spouses having their own money [53].

Participants conceptualised household income as comprising of 'my money, your money, and a shared household bank account for everyday expenses' (Gambling at no-risk/low-risk Group No. 1, female 1). According to the participants, in Finland, a shared household bank account is typically used for family necessities, not entertainment. Several groups included discussion on only

using one's own money for gambling. In many cases, participants noted that Finnish people can even be unaware of the income level of their spouse and have no say in how their spouse wants to spend their own money.

A few groups suggested that a focus on household income may even implicitly suggest that one is allowed to gamble with the money of a family member. Spending someone else's money for gambling was considered unthinkable:

*My spouse's income is double my income /--/ During the time when I still gambled on gambling machines /--/ We had, and still have, separate accounts. But it never even occurred to me that I would have used his money. (Gambling at no-risk/low-risk Group No. 2, female 1)*

It was considered even more problematic if several individuals in the same household gamble, or if the household includes dependent children. However, participants suspected that in some relationships, using the income of a spouse to gamble can be common, eventually leading to unresolvable disagreements:

*When the other person finally gets tired of supporting the other person, it's resolved [by ending the relationship]. And they cry after the breadwinner, saying, 'How can you do this to me?' (Gambling at no-risk/low risk Group No. 1, male 3).*

Due to high taxation rates in Finland, participants also stressed that any guideline should focus on income after tax. This finding stands in contrast to the original LRGG recommendation that uses the income before taxes as the point of reference. Furthermore, many participants highlighted that the net income should not only be understood as income after tax, but also after all fixed expenses such as rent, mortgage, and other living expenses have been deducted: Some individuals may have high income levels, but also high levels of expenses. This may result in lesser amounts of spare budget than for individuals with a more moderate income, but also low levels of expenses.

For our participants, it was more intuitive to discuss monthly income (after tax) rather than yearly income. Participants described how most people know their monthly income, but struggle to remember their yearly income. Some also noted that salaries in Finnish job advertisements always refer to a monthly salary.

Only a few groups discussed whether gambling spending should be counted based on expenditure only or based on losses (accounting for the balance after all expenditure and possible wins). Overall, participants did not make a difference between expenditure and losses when discussing expenditure limits for gambling. The

finding echoes prior results from Canada, showing that expenditure only was a more straightforward measure [35].

*The advice that many have followed is to gamble only as much as you can afford to lose with a smile. (Professional gamblers, male 2)*

Finally, and similarly to the LRGG, we asked the respondents to consider what share of household or personal expenditure could be spent to keep gambling at low risk levels. Across groups, suggested percentages ranged from one to ten percent, with little difference depending on what type of group was interviewed. In some groups, participants disagreed with one another regarding the percentage. For some, gambling budgets were compared to or included in other entertainment budgets. However, most did not consider entertainment budgets as a benchmark for lower risk gambling spending.

The consensus surfacing in the focus group conversations was therefore that the first LRGG recommendation should focus on **monthly personal income after tax and other fixed expenses**.

#### **Guideline related to frequency of gambling**

The second recommendation in the LRGG is **not to gamble more often than four days a month**. Group discussions on this topic were relatively straightforward but also diverged somewhat from the original Canadian guidelines. Instead of a monthly-level guideline as in the original LRGG, the Finnish interviewees expressed preference for a weekly-level guideline. The most common suggestions were once or twice a week. The tradition of the Saturday night lottery [54] was often explicitly referenced as an example. While there is also a wide selection of different and more frequent lotteries available in Finland, the interviewees exclusively referred to the traditional weekly lottery. For other products besides the lottery, frequency was not differentiated by gambling product types.

Despite a preference for weekly guidelines, some interviewees emphasised the importance of consistency. They noted that if gambling expenditure limits are given at monthly levels, the frequency guideline should logically align with this:

*Maybe I'm too tired. But it's a bit tricky to figure this one out. First, there's the annual income and then we start talking about monthly and weekly occasions. (Gambling at no-risk/low-risk Group No. 3, female 3)*

Another difference to the original LRGG in our interview data related to extensive discussions on the length

of gambling sessions. The original LRGG does not make a mention on the length of sessions. This was because when examining the association between gambling involvement and risk of harm, there was limited reliable data on duration of play across gambling activities (e.g., lottery vs. EGMs) in the 11 data sets assessed [29, 30]. Additionally, participants in the qualitative study informing the development of the LRGG did not mention limiting time unless specifically prompted to do so [35]. In contrast, most of our focus-groups discussed the need to prevent 'intentional misunderstandings' by giving individuals the opportunity to keep within limits despite gambling extensively on fewer occasions. Therefore, participants suggested amending the guideline to also account for length of sessions as this was seen to benefit many individuals:

*But then again, which one is worse? You play one game every day or you play once a week and sit there for, say, 12 h? (Gambling at no-risk/low-risk Group No. 3, Female 2)*

At the same time, participants also acknowledged that gambling products differ. For some products, it is possible to lose significant amounts of money within a short period of time, even in seconds. Therefore, the applicability of the guidelines may also depend on the products of choice.

*I've never come across anyone who's been stuck on the lotteries [for hours]. (Individuals with past lived experience of problematic gambling Group No. 2, female 1)*

Overall, based on the recommendations of our interviewees, the second LRGG recommendation should focus on **weekly number of gambling sessions, with specifications on the appropriate length of these sessions**.

#### **Guideline on the type of game**

The third recommendation of the LRGG is to **avoid gambling regularly at more than two kinds of games**. Our participants generally agreed with this guideline but also expressed some concern regarding the interchangeability of different gambling products. For the participants, online gambling was the norm, as all products from lotteries to EGMs are available online. In particular, fast-paced online casinos were identified as the most dangerous type of gambling. Additionally, land-based EGMs were also considered risky. The risk of harm could therefore depend significantly on which two gambling types one participated in regularly.

*I've heard foreigners wonder about /--/ those gambling machines in the groceries. It's completely incomprehensible that there is a casino in the hall-way of every shop. (Gambling at no-risk/low risk Group No. 1, male 2)*

Lotteries were considered the product with the least risk of harm. In our interview material, lotteries had a dual role. On the one hand, gambling on lotteries reduced the number of other gambling types to only one beside the lottery. This was considered positive, as the weekly Lotto was seen as a very low-risk product or not even gambling at all. On the other hand, the weekly Lotto was described as normalising gambling in the Finnish culture and creating a habit of gambling as being a part of weekly routines [54]. Lotto has been associated with charity and a tradition reminding of childhood memories [55]. Lotteries could therefore become an automated and unquestioned habit that one did at shop cashiers.

*You could take Lotto out [of the guidelines] because for many people it's a consumer product in the same way as a carton of milk. It's not even perceived as something that is called gambling. (Professional gamblers, male)*

Overall, the number of gambling types was not considered the most relevant factor of harm. Many group discussions touched upon individuals having their 'drug of choice', i.e. their favourite game. Particularly those with lived experience of gambling problems or CSOs of individuals with gambling problems, noted that there tends to be a specific preferred type of product. Other types of gambling products are hardly even gambled at. For these groups, limiting the number of gambling types made little sense.

Instead, two groups mentioned that some limits might be more appropriate on physical locations of gambling. Even though online gambling has reduced the importance of physical availability, some participants viewed abstaining from gambling during food shopping as a useful recommendation. As different gambling products are widely available in everyday locations such as supermarkets in Finland [40], this recommendation is strongly tied to Finnish gambling context. Gambling small amounts of change on EGMs in shops is normalised and the habit has been reinforced by the idea that lost money supports charitable causes.

Based on our focus group discussions, the third LRGG recommendation could shift focus away from the number of products and instead emphasise **abstaining from regularly gambling at the most harmful forms of gambling.**

### **Recommendations for special circumstances**

In addition to the three main guidelines, the LRGG also includes specific recommendations for individuals in special circumstances. It outlines certain situations when it is preferable to gamble less than suggested or even abstain from gambling completely. These situations include experiencing problems with alcohol, cannabis or other drug use; experiencing problems with anxiety or depression; or having a personal or family history with problems related to gambling. The LRGG also advises reflection on one's reasons for gambling; the guidelines suggest that gambling to escape problems is likely to increase the risk of harms.

The respondents in our study agreed with these additional instructions. Abstaining, or at least reducing gambling considerably was considered necessary if one experiences mental health issues. In addition, some participants noted that certain personality traits, such as impulsivity and thrill-seeking can also pose a risk for problematic gambling. These traits came up in several discussions about vulnerable groups and situations. The discussions also underscored the importance of self-awareness: individuals should recognize if they are prone to getting easily carried away when gambling:

*I didn't [want to] say personality disorder, but [the word] impulsivity covers a lot. (Social and Healthcare professional Group No. 1, male 1)*

Participants also agreed with the recommendation that individuals with alcohol or substance abuse problems should abstain from gambling. However, they also emphasised the importance of avoiding gambling while intoxicated, even without specific alcohol-related problems. The importance of not gambling while inebriated was brought up without any prompts and across interviews (unlike in the prior study by Flores-Pajot and colleagues [35]). This may be because our interview design included comparisons with national lower risk guidelines for alcohol consumption. Additionally, the ambiguous position of alcohol in Finland [56] could have easily set up a 'problem orientation' in how participants assessed the gambling guidelines. There are clear instances where alcohol materialises as a natural point of comparison:

*The spending of money— compare it to alcoholism. So, if a person 'just' drinks, and doesn't cater to the whole restaurant and doesn't organise some fancy party somewhere— then you can't really do it that badly to get into a financial mess.—But, in principle, a gambler can destroy a lot in a few seconds, financially. (CSOs Group No. 1, Female 2)*

Several suggestions were provided to expand the original LRGG. Our participants highlighted the importance of not gambling if one has debts or if there is a possibility that gambling can cause financial hardship. Gambling was described as a pathway to multiple instant loans and financial difficulty. Several groups emphasised that one should never take out a loan or borrow money from family or friends to gamble. Gambling expenditure was assessed in relation to other types of spending, emphasising the importance of recognising when money is diverted from other consumption. Financial harm was thus defined as the inability to fulfil other financial obligations.

A few participants recommended abstaining from gambling altogether if one has a low income, such as depending on social benefits. These respondents believed that with a limited income, there is no level of safe consumption as there is no extra money for gambling.

*Could [the poster] say that if you receive social assistance, you shouldn't gamble at all. (Social and Healthcare professionals, Group No. 2., female 2)*

Other additional suggestions to the LRGG included certain medications or health conditions, such as bipolar disorder, that can increase the risk of gambling-related problems. Some also suggested a more general scope of 'mental health issues' as a risk factor, broadening from the original list that includes anxiety and depression, only.

Several groups recommended including a guideline for 'No gambling to win back losses.' The desire to win or the thought of recouping losses by continuing to gamble was described as a significant predictor of problem gambling.

Finally, many participants highlighted that if a CSO expresses concern about someone's gambling, it is a clear sign that gambling is not under control:

*I'd still raise up close ones' concerns here. In my opinion, it is also suitable for this— Consider reducing or assessing your gambling if your loved ones are worried. (Social and Healthcare professionals Group No. 1, female 2)*

## Acceptability

### **The presentation of the guidelines**

The population-level adoption of LRGG recommendations depends not only on the feasibility of the guidelines themselves but also on how they are presented. For this reason, we also asked the participants about their views on the practical implementation of the LRGG. Discussions focused on the clarity of design and language, dissemination, and the overall acceptability of the LRGG.

Perceptions of the clarity and informational value of the posters varied significantly. Some participants found the guidelines very clear, appreciated the language, and considered them easily understandable. However, other groups found the order of the figures (1-4-2) counterintuitive and some content unnecessary.

The most common suggestion to improve presentation across groups was to reduce the amount of text. In addition to the guidelines, the poster includes tips for safer gambling and information on harmful consequences of gambling:

*Way too much text. If this is an online poster, it could have links embedded in it. If this was at a bus stop, five buses would have gone past by the time you finish reading it. (Gambling at no-risk/low-risk Group No. 5, male 1)*

The poster also includes a table showing yearly income and proposed gambling expenditure. The aim of the table is to provide an easy calculation of how much 1% of different income brackets translates into recommended gambling budgets. Participants agreed that absolute limits on expenditure were important; however, most groups could not reach a consensus on the optimal presentation format. Using a percentage of monthly income was not viewed as useful by all, since it might still be too high for lower-income groups but negligible for higher-income groups.

Some respondents thought the income table was unnecessary or even problematic. They feared it might even encourage gambling by presenting exact amounts, which could be misinterpreted as fixed safe limits. This concern was compared to issues identified in existing lower-risk alcohol consumption guidelines: participants noted that individuals often assume their drinking is harmless if it stays below the stated risk limit.

*They feel that there's no problem because they haven't exceeded a certain limit. Finns are a bit like that, they sometimes take numbers literally. I only drank 11 beers, if the [low risk] limit is 12. I don't have a problem. (Gambling at no-risk/low-risk Group No. 2, male 2)*

### **The dissemination of the guidelines**

Respondents discussed the most effective methods and locations for disseminating the guidelines to attract attention. As we presented the guidelines to groups using a poster, group discussions focused strongly on where to place such posters. Common suggestions included public healthcare, occupational health services, and social services. Our participants recommended placing posters on the walls of these premises, but also suggested using the

posters as ice breakers for addressing gambling in health care and social services.

*It occurred to me, that one really important channel would be occupational health care, and for the young people and children it's school health care. (CSOs Group No. 1, female1)*

A few respondents in the no-risk/low-risk groups suggested placing posters near EGMs or cashiers in gambling venues and supermarkets. Individuals with past lived experience of problematic gambling and CSOs also considered help services and peer-groups as suitable places for dissemination. Perhaps due to the poster form in the interview setting, dissemination of the guidelines online or on social media was less frequently mentioned.

Almost all groups discussed the responsibility for dissemination of guidelines. Across groups, participants considered it the responsibility of gambling providers to show these guidelines. This could be done, for example, using a pop-up during a gambling session to discourage further gambling:

*[The pop-up] would be there for five minutes. You'd get tired of waiting, you'd be like 'Shit, I'm done, I'm leaving [the gambling site].' (Gambling at no-risk/low-risk Group No. 3, male 1).*

Professional gamblers and respondents in one no-risk/low-risk group highlighted the need to introduce the guidelines at an early age. Guidelines could be incorporated as part of school curricula to educate children before they are old enough to gamble legally. These respondents compared the LRGG to providing children information on harmful substances and alcohol already before they turn 18:

*This goes into a [health education] package on alcohol and gambling at schools, in which [the products] are for over 18-year-olds. (Professional Gamblers, male 2)*

### **The perceived realism and usefulness of the limits**

The focus groups considered the guidelines as mostly realistic and acceptable. The main critique concerned differences between consumer groups. Whilst 1% of personal income was viewed as a reasonable limit for gambling overall, actual amounts often seemed unrealistically low. This was particularly the case of lower-end spending guidelines, such as seven euros a month. Similarly, individuals with a high income were described as able to afford to gamble more than 1% of their income. Many suggested that higher limits for higher income would not constitute a risk.

*For someone with a really good income, it's probably a matter of taste whether they put their money into gambling or something else, whether they want to buy an expensive car or whatever /--/ When someone has a high income, it's hard to tell them that 'yeah, you can't gamble those three hundred [euros].' (Social and Healthcare professionals Group no. 2, female 5).*

Aside from the discussion on the spending level guidelines, most participants did not perceive the guidelines as overly interfering with individual consumption choices [57]. On the contrary, many concluded that the guidelines must be straightforward and cut some corners to convey the message clearly.

Only two groups— professional gamblers and one group of individuals gambling at no-risk/low-risk levels (Group No. 5)— addressed paternalism in their discussions. Group No. 5 discussed how the Finnish state frequently patronises its citizens. The professionals emphasised the need for the state control in the gambling market. The professional gamblers pointed out that the guidelines cannot address harmful practices, such as offshore gambling or cryptocurrency gambling. Instead, they argued that the guidelines shift responsibility onto individuals, whereas the core issue lies in the inability of the state to regulate gambling markets effectively.

*Channelling won't work without [state] control— It is typical for individuals to have a few or dozens [of gambling accounts] (Professional gamblers, male 2).*

In Group No. 5 (of individuals gambling at no-risk/low-risk levels), one participant made a comparison between the LRGG recommendations and mandatory time-limit reminders during gambling sessions, especially during sports matches. The participant suggested that if the guidelines and their implementation are too restrictive, this may irritate people and turn them against the LRGG:

*I'd change the [term] 'instructions' to 'tips.' It would immediately change the tone. This [poster] is trying to help you, not babysit you. Instructions sounds patronising and tips would sound more like helping. (Gambling at no-risk/low-risk Group No. 5, male 1)*

Several focus groups discussed the usefulness of the guidelines for individuals with gambling problems, highlighting concerns about realism. Participants felt the limits were either introduced too late or set too low. For those already experiencing severe gambling issues, self-control or adherence to such low thresholds was deemed unrealistic. This perspective was shared across all types of groups. However, individuals with lived experience

of gambling problems, CSOs, and social and health care professionals were the most inclined to view gambling through the lens of problematic use, shaped by their personal and professional experience:

*I understand that it would be important to set or define a risk limit -- You need to consider the potential relapse and whether [the limit] would work. If you gamble over the limit, is it a relapse? For a recovering problem gambler [the limit is] zero euros. (CSOs Group No. 1, female 1)*

### Target population of the LRGG

A crucial challenge for the use and adoption of the LRGG related to the perception of the intended target group of the guidelines. Our groups diverged in terms of who they thought the guidelines were aimed at. For those with experience of gambling problems, the target group of the LRGG would first and foremost be individuals gambling at low-risk levels. However, those gambling at no-risk/low-risk levels perceived the guidelines to be addressed at people with gambling problems, even though they were asked to discuss the guidelines at a population-level. Moreover, all groups of individuals gambling at no-risk/low-risk evaluated the overall appearance and applicability of the guidelines from a 'problem gambling' perspective:

*There are too many points [in the poster] It just makes it a bit confusing. If someone with a gambling problem looks at it, they might just ignore it and... maybe they should get angry about it. (Gambling at no-risk/low-risk Group No. 4, male 1)*

The no-risk/low-risk focus group participants also discussed the dissemination of the guidelines from the same problem-oriented perspective:

*Gambling should be addressed. A common thing [at health care services]. 'Hey, do you have a problem?' Not everyone admits that though. Still, it could become a routine. And they'd tell people that we always go through this with everyone. Even if it's not [yet] a problem. (Gambling at no-risk/low-risk Group No.3, female 3)*

Although many participants acknowledged that the LRGGs could be discussed with everyone, the no-risk/low-risk gambling focus groups regarded the LRGGs more as a tool for screening problematic gambling habits, even when applied towards the full population.

This finding underlines the identified core challenge in applying and implementing the LRGG in Finland. While virtually all participants saw the benefit of these

guidelines, no one considered themselves to be the target group. The LRGG were always seen to be 'for someone else':

*I really agree with what was just said here [LRGG]. But will those who should read this the most, read this? (Gambling at no-risk/low-risk Group No. 2, female 1)*

The overall confusion regarding target populations may be partly a result of the interview setting: evaluating the guidelines from a population-level perspective may have broadened the scope of discussions. However, many participants also seemed to ignore the fact that, as part of the population, they were also part of the target group. Instead, in many cases participants distanced themselves from the general population and assumed the role of consultants, offering advice to others dealing with problematic gambling and did not feel this advice concerned their own actions.

### Discussion

This qualitative study has been part of a larger project assessing the acceptability and feasibility of the Canadian LRGG in the Finnish cultural context. It has also been the first qualitative study on the topic. Our aim has been to complement and expand on findings of a recent quantitative survey study on the guidelines [43]. We investigated views and perceptions on the suitability of the LRGG with focus-group interviews conducted amongst five different subpopulations: individuals who gamble at no-risk/low-risk levels, individuals with past experiences of gambling problems, CSOs, professional gamblers, and professionals in health care and social services. Inclusion of these different groups allowed us to gain a more in-depth understanding of attitudes and opinions on the guidelines before they are implemented in Finland.

Overall, we found that the LRGG were considered as useful in the Finnish context, confirming the findings of the survey by Palomäki and colleagues [43]. However, our qualitative design comprising of different stakeholder groups also revealed some further suggestions and context-specific elaborations on how to potentially improve the guidelines, how and to whom the guidelines should be disseminated, and what kind of factors might undermine the effectiveness of the guidelines.

### Assessment of the LRGGs in the Finnish context

Most participants considered the targets of the three main guidelines to be useful, but in need of some rewording or modification. Some concrete suggestions were raised to improve the guidelines or to adjust them into the Finnish context. This input is important in informing the later implementation of the LRGGs in Finland.

However, the suggestions cannot be considered on par with the scientifically validated guidelines of the original LRGGs. These further suggestions can rather be seen as one component of a larger picture. The suggestions should be carefully considered within the context of existing guidelines, by mirroring them with the parallel Finnish quantitative feasibility study (Palomäki et al. 2024), as well as by keeping the final guidelines as precise and simple as possible.

In case modifications are applied to the original science-based LRGG, such as the suggestions put forward by our respondents, this would entail some re-calculation of the exact limits of lower risk. Some of these are easy to accomplish but others are more complex. Notably, our participants suggested rephrasing the first guideline from *'not gambling more than 1% of the yearly household income'* to *'not gambling more than a fixed percentage of monthly personal income after tax and other fixed expenses'*. This fixed percentage can differ across social groups, but some indicative percentage needs to be provided. For the second guideline, the participants suggested rephrasing from *'not gambling more than four days a month'* to *limiting the weekly number of gambling sessions, as well as the length of these sessions*. The third guideline, originally stating that one should *'avoid participating in more than two types of gambling activities on a regular basis'* was suggested to be rephrased as *abstaining from regularly gambling at the most harmful forms of gambling*, such as online casino products.

These suggestions for rephrasing the three guidelines partly differ from a prior qualitative study focusing on the LRGG that was conducted in Canada [35]. The Canadian study focused only on individual-level monetary, time and frequency limits. In our study, participants also saw nuance across different population groups, different gambling products, and different gambling sessions. Furthermore, while our current findings are generally in line with the quantitative component of the Finnish LRGG feasibility and acceptability study [43], our focus-group participants also raised critique that could not be captured using survey methodology. Notably, results by Palomäki and colleagues [43] suggested that people responded slightly more positively towards personal rather than household income as a component of limits, although this result was not statistically significant. In the current study, most participants preferred personal-level income limits. Thus, our current findings complement the earlier quantitative evidence, enabling us to conclude—based on both the quantitative and the current qualitative findings—that income limits should indeed refer to personal income in Finland.

The preference for personal rather than household level income can be connected to high gender equality and strong participation of both genders in the work force

[53]. Another context-specific finding related to a preference to focus on length of sessions rather than gambling occasions. This is possibly related to a longstanding high prevalence of time-intensive forms of gambling in Finland, such as EGMs [40, 42]. For these types of continuous products, it is more relevant to think of consumption in terms of sessions rather than gambling occasions. With the growing consumption of online gambling a distinction between gambling session and occasion becomes even more important.

Regarding how and to whom the guidelines should be disseminated, our interviewees also discussed several points for further development. Participants felt that the translated LRGG posters had too much information. Participants also suggested modifications to improve readability. Some concrete examples included the removal of the income table, and shortening the text on harms and recommendations. Only one group suggested softening the tone of language used. These practical suggestions are essential to take into consideration, as overly dense implementation materials may not serve their intended purpose [58]. As to how to disseminate the LRGGs participants recommended rather traditional channels, like healthcare and social services or placing posters in close proximity to gambling machines.

### Reflections and perceptions for adoption

Most of our participants felt that the guidelines were a commendable effort but meant for 'someone else'. Individuals who had experience with problematic gambling considered the LRGG to be more appropriate for those who still gamble at lower risk levels. Conversely, those who gambled at no-risk/ low-risk levels, believed that the LRGG were mainly addressed to those who experience problems. This finding can have important implications for adoption of the guidelines in Finland. The Finnish context is characterised by a long tradition of public health recommendations in other fields besides gambling, such as the acclaimed North Karelia project reducing cardiovascular diseases in the project region [18]. The Finnish population also has comparatively high levels of trust in administration, officials and institutions in general [59, 60]. Then again, distancing oneself from health guidelines has been identified as a challenge for health messaging before [26]. In Canada, a risk self-assessment calculator has been implemented for the LRGG in order to personalise the health message. Engaging the target population remains, however, an ongoing issue to be solved.

If the LRGG are to acquire an important informational position at population level, it is important that they are easy to understand and easy to remember. Across our interviews, participants contrasted the LRGG to existing guidelines on alcohol use. Alcohol guidelines were

well-known to participants, and the gambling guidelines were perceived as somewhat less straightforward. This is likely a characteristic of gambling as a field more generally. Unlike alcohol, gambling cannot be reduced to a single measurable dosage. When assessing the relationship between chronic alcohol use and the occurrence of disease, alcohol intake in grams per day is used [61]. In contrast, assessing the relationship between gambling involvement and gambling harm is not as straightforward [28]. This is in part due to the nature of gambling (i.e., it is an activity or behaviour rather than a psychoactive substance) and due to the significant structural variation across gambling products (e.g., differences between purchasing a lottery ticket, then waiting to learn the outcome vs. wagering on an online gambling machine and receiving instant feedback). During development of the Canadian LRGGs, the research team initially examined five different gambling involvement indicators, that could be used as measures analogous to “dose” in alcohol research: expenditure (both as Canadian dollars spent per month and as a percentage of monthly income), frequency (as number of gambling days per month), number of gambling types per month, and duration of gambling session [29, 30]. In the end, due to data availability and quality, the research team decided to limit the recommendations to expenditure (as percent of monthly income), frequency, and number of gambling types. In sum, there is no single “dose” or standard drink equivalence in gambling. The result is that the messaging regarding how to engage in lower risk gambling is reflective of this complexity.

Different social groups can also experience gambling harms and public health messaging differently. All groups in this study agreed that some special groups should follow stricter guidelines or abstain from gambling completely. These included, particularly, individuals with debt or very low income. Those with a low income are more likely to experience harm from gambling, even with lower levels of consumption [62]. Other group-level distinctions include socio-demographic factors (age, gender) or preferences with regard to gambling products. For example, younger age groups gamble more in online environments, and can be exposed to a wider range of different harmful gambling products [63].

Finally, participants in our study identified several factors that can undermine the effectiveness of the guidelines. Our results here echoed those reported before by Flores-Pajot and colleagues [35]. Our participants particularly focused on a variety of commercial actions by gambling providers, such as marketing, visibility, and addictive product design. Such commercial factors can limit individual choice and make it more difficult to adhere to guidelines, even despite best intentions. This finding is in line with a body of research evidence on the

commercial determinants of gambling [9, 64, 65]. These types of commercial actions can be harmful to health if not properly regulated. While a range of actions are needed for regulation to be effective, including primary prevention and information campaigns, guidelines such as the LRGG cannot replace system-level regulatory enforcement. The LRGGs are one tool in preventing gambling harm. In the future, it would be also advisable to advance such guidelines considering the convergence of gambling and gaming.

### Methodological recommendations

Our results have shown that, on a practical level, global recommendations for lower risk gambling can be useful, but any limits may require flexibility in accordance with different contextual and individual factors. This observation shows how necessary it is to use multi-method and multi-country testing of existing guidelines upon their implementation. Qualitative and quantitative research settings may, for instance, offer complementary perspectives. Notably, our qualitative inquiry has been able to produce nuance that cannot be captured by quantitative designs.

Cultural contexts have an important impact on how guidelines on gambling, and gambling more generally, are perceived. Cultural contexts stretch beyond immediate realms of activities [66]. The effect of cultural context in our study was visible in a variety of results that had not been captured in the prior Canadian study. This cross-cultural finding suggests that guidelines such as the LRGG may need further development before their rollout in new cultural contexts. At the same time, this type of testing can be very fruitful. Evidence-based development of guidelines such as the LRGG is resource intensive and demands extensive efforts and large datasets [32]. It is therefore reasonable to adapt existing guidelines rather than to develop new ones in each context.

### Limitations

Our qualitative focus-group study was part of a larger initiative investigating the feasibility and acceptability of LRGG in Finland. As this is a qualitative study, we interviewed only a limited number of individuals that are not representative of their respective subpopulations. The number of participants was also limited by some difficulties during recruitment, particularly for the professional gamblers. A wider sample of interviewees would have provided more robust evidence for our conclusions. Furthermore, while group interview situations are optimal for interview designs looking at common understandings of policy issues [47], group dynamics can, in some cases, thwart some individual opinions that may be considered less socially acceptable. Since this study was conducted in Finland, transferability of findings to other cultural

contexts needs to be assessed. While the results of this study are specific to the Finnish gambling landscape, the study design has been successful in bringing about vital insights and it can serve as a model for qualitative feasibility and acceptability studies elsewhere. We encourage, to use and advance our approach in additional jurisdictions and under a comparative perspective. Finally, with the increase of online gambling and the convergence between gambling and gaming, future studies need to look in more detail onto how the consumption of online gambling affects the use of lower risk gambling guidelines and in how far these could be adjusted in reducing the risks of gaming.

## Conclusion

Lower Risk Gambling Guidelines are generally suitable for the Finnish context, but our results recommend reflecting on three matters, when implementing the LRGs in Finland. These matters relate to (1) a preference of monthly personal income after tax and other mandatory expenses as point of reference; (2) a frequency guideline focusing on weekly and session-level recommendations, and (3) a guideline recommending avoiding regularly gambling on products that are known to cause the most harm. In addition, participants suggested groups that should abstain from gambling completely. These suggestions are crucial information for the implementation of the LRGG, but need to be seen in light of the evidence from previous studies and should also not overly complicate the guidelines. The main challenge in the implementation of the LRGG is that all respondents considered the guidelines to be aimed at 'someone else'. Since the LRGG is a part of targeted, primary prevention, it is important to ensure that particularly individuals gambling at low-risk levels recognise and acknowledge that the guidelines are aimed at the full population, including themselves. Clear communication of the target group can help the guidelines achieve their intended effect.

## Abbreviations

CSO	Concerned significant other
EGM	Electronic gambling machine
LRGG	Lower-risk-gambling-guidelines

## Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12954-025-01225-9>.

Supplementary material 1

## Acknowledgements

We wish to thank all the interview participants who gave their insights into this study.

## Author contributions

Conceptualization: SC, ME, MY, DH, JP. Methodology: ME, SC, RM, EP, JP; Formal analysis: PJ, ME, VM, RM, EP. Investigation: MT, RM, EP, ME, VM. Resources: SC, VM. Writing original draft: ME, PJ, VM. Writing review and editing: ME, PJ, VM, RM, JP, EP, MY, DH, SC. All authors approved the final draft.

## Funding

The Ministry of Social Affairs and Health, Finland funded the study (within the objectives of the § 52 Appropriation of the Lotteries Act). Daily work of the authors SC, JP at the Finnish Institute for Health and Welfare, Finland, was also funded by the Ministry. CEACG at the University of Helsinki and EHYT have contributed staff time. The Ministry has had no role in the study design, analysis, or interpretation of the results of the manuscript or any phase of the publication process. Open access has been funded by Helsinki University Library.

## Data availability

The datasets generated and/or analysed during the current study are not publicly available due to the sensitivity of the data and promised confidentiality to the respondents.

## Declarations

### Ethics approval and consent to participate

This study adheres to the ethical guidelines of the Finnish Advisory Board of Research Conduct. Participation in the study was voluntary, and the study did not deviate from the principle of informed consent. Participants received oral and written information on the research before the interview commenced. Depending on the setting of the interview (remotely or in-person) consent was given orally or with a signed form. The study was approved by the Ethics committee of the Finnish Institute for Health and Welfare (THL/4626/6.02.01/2022). We also applied for and received research permits from concerned wellbeing services counties to contact social and healthcare professionals for recruitment.

### Consent for publication

N/A

### Competing interests

Michael Egerer: None to declare. ME has during the last 3 years received funding from the Finnish Foundation for Alcohol Studies (FFAS) based on §52 of the Finnish Lotteries Act to support conference travel and research. He is funded by the Finnish Ministry of Social Affairs and Health within the objectives of §52 of the Lotteries Act. The funds based on §52 stem from a mandatory levy on the Finnish gambling monopoly to support research and treatment. The funds are circulated via the Ministry and the monopoly has no influence on how the money is distributed. Neither the Ministry, the FFAS nor the gambling monopoly pose restrictions on publications. ME discloses a fee for delivering a presentation from Bochum University and paid peer review from New-South-Wales Office of Responsible Gambling, as well as, from the French National Cancer Institute (INCa) and the Institute for Research in Public Health (IReSP). Paula Jääskeläinen: PJ has during the last 3 years received funding from the Finnish Foundation for Alcohol Studies (FFAS) based on §52 of the Finnish Lotteries Act to support conference travel and research. She is funded by the Finnish Ministry of Social Affairs and Health within the objectives of §52 of the Lotteries Act. The funds based on §52 stem from a mandatory levy on the Finnish gambling monopoly to support research and treatment. The funds are circulated via the Ministry and the monopoly has no influence on how the money is distributed. Neither the Ministry, the FFAS nor the gambling monopoly pose restrictions on publications. Virve Marionneau: Competing interests: None to declare. In the past three years, VM discloses funding for gambling-related projects from the Academy of Finland (project 349589), the Finnish Ministry of Social Affairs and Health (based on the provisions of §52 of the Lotteries Act 52), and the Finnish Ministry of Justice (project RAVE). VM is a member of the Gambling Harms Evaluation Committee (2021–ongoing) under the Finnish Ministry of Social Affairs and Health. VM discloses a fee for delivering a presentation from the Council of Europe and from Bochum University, paid peer review from Routledge, and funding for travel from the University of Glasgow, University of Bergen, Finnish Foundation for Alcohol Studies, and the Council of Europe. Riitta Matilainen: Competing interests: None to declare. In the past three years, RM discloses a reward fee

from the Finnish Ministry of the Interior for being one of the rapporteurs that produced a report of the preliminary study on the monopoly for gambling activities in April 2023. RM is a member of the Gambling Harms Evaluation Committee (2022–ongoing) under the Finnish Ministry of Social Affairs and Health and a member of the Advisory Board on Gambling (2024–) under the Finnish Ministry of the Interior. All RM's conference travel expenses etc. have been paid by RM's employer EHYT ry. Jussi Palomäki: None to declare. JP is a member of the Gambling Harms Evaluation Committee (2023– ongoing). Eija Pietilä: None to declare. Mika Tsupari: None to declare. Mika Tsupari has received funding from the Finnish Foundation for Alcohol Studies (FFAS/ATS) for 3 years and 3 months for his phd project on the use of classic psychedelics in Finland. David Hodgins: DH received partial salary support from the Alberta Gambling Research Institute, a government agency. He received conference travel funds from the International Society for Addiction Medicine. Matthew Young: MMY has no competing interests to declare. Greo Evidence Insights (Greo) is a not-for-profit research and knowledge exchange organization that has received funds in the last five years from the New Zealand Ministry of Health, the Ontario Ministry of Health and Long-Term Care, Health Canada, and Canadian non-profits, charities, and post-secondary institutions. Greo has also received funds from social responsibility arms of Canadian crown corporations (i.e., state monopolies) that conduct and manage provincial/territorial gambling, regulatory settlement funds (Great Britain), third-sector charities (Great Britain), and international regulators. Greo has not received funding from the gambling industry either directly or indirectly through voluntary donations. Sari Castrén: SC works full time at the Finnish Institute for Health and Welfare and all her research work is funded within the objectives of \$52 Appropriation of the Lotteries Act. Castrén also works as a clinical psychologist at Addiktum Clinic Helsinki, Finland as a private practitioner (part time) treating individuals mainly with addiction problems, and at Mehiläinen Medical Center, Forum Helsinki, where she offers treatments to various psychological issues. She was a clinical advisor to Canadian company Alavida, Vancouver, (remote/internet treatment for alcohol disorder). She was an external evaluator of the therapist's performance (checklist) in a randomized controlled clinical trial investigating the safety and efficacy of a synthetic psilocybin capsule vs. placebo, with the MET in year 2024. The fee was paid by Clairvoyant Therapeutics Inc. Vancouver, Canada. She is also lecturing about Behavioral Addictions (e.g., national and international conferences) and training and supervising professionals to treat gambling disorder (MI, CBT) as a part of her duty at the Finnish Institute for Health and Welfare and addictions in general privately. She has received fees from Helsinki University, Tampere City, Vocational school Stadi, Mehiläinen for her lectures on behavioural addictions and training professionals and writer's fees from The Finnish Medical Society Duodecim, Myllyhoitoyhdistys ry, and received fees from Svenska Spel (Sweden) for evaluating research plans (grants) as a member of international examiner team (Research Council) and Tampere University (Finland) and University of Deakin (Australia) for preliminary examination of PhD works and fees for acting as an opponent for PhD dissertations for Lund University (Sweden) and Bergen University (Norway). She has received funding together with Dr. Kalle Lind from the Prison and Probation Service of Finland for a research project titled 'Problem Gambling Among Criminal Sanction Clients: Preventing Recidivism and Developing Support'. She declares no conflict of interest in relation this manuscript.

#### Author details

<sup>1</sup>University of Helsinki Centre for Research on Addiction, Control, and Governance CEACG, University of Helsinki, Helsinki P.O. Box 42, FI-00014, Finland

<sup>2</sup>EHYT Finnish Association for Substance Abuse Prevention, Elimäenkatu 17-19, Helsinki 00510, Finland

<sup>3</sup>Finnish Institute for Health and Welfare, Department of Promotional and Preventive Work, Helsinki, Finland

<sup>4</sup>Department of Digital Humanities, Cognitive Science, University of Helsinki, Helsinki, Finland

<sup>5</sup>Department of Psychology, University of Calgary, Calgary, Canada

<sup>6</sup>Greo Evidence Insights, Guelph, ON, Canada

<sup>7</sup>Canadian Centre on Substance Use and Addiction, Ottawa, Canada

<sup>8</sup>Department of Psychology, Carleton University, Ottawa, ON, Canada

<sup>9</sup>Finnish Institute for Health and Welfare, Department of Health Services, P.O. Box 30, Helsinki FI-00271, Finland

<sup>10</sup>Social Sciences Department of Psychology and Speech-Language Pathology, University of Turku, Turun yliopisto FI-20014, Finland

<sup>11</sup>Department of Medicine, University of Helsinki, Helsinki Haartmaninkatu 8, P.O. Box 63, FI-00014, Finland

Received: 20 December 2024 / Accepted: 19 April 2025

Published online: 25 April 2025

#### References

1. Markham F, Young M, Doran B. The relationship between player losses and gambling-related harm: evidence from nationally representative cross-sectional surveys in four countries. *Addict* (Abingdon England). 2016;111(2):320–30. <https://doi.org/10.1111/add.13178>
2. Castrén S, Lind K, Hagfors H, Salonen AH. Gambling-related harms for affected others: A Finnish population-based survey. *Int J Environ Res Public Health*. 2021;18(18):9564.
3. Hing N, Russell AMT, Browne M, Rockloff M, Tulloch C, Rawat V, Greer N, Dowling NA, Merkouris SS, King DL, Stevens M, Salonen AH, Breen H, Woo L. Gambling-related harms to concerned significant others: A National Australian prevalence study. *J Behav Addict*. 2022;11(2):361–72. <https://doi.org/10.1556/2006.2022.00045>
4. Lind K, Castrén S, Hagfors H, Salonen AH. Harm as reported by affected others: A population-based cross-sectional Finnish gambling 2019 study. *Addict Behav*. 2022;129:107263. <https://doi.org/10.1016/j.addbeh.2022.107263>
5. Abbott MW, Binde P, Clark L, Hodgins DC, Johnson MR, Maniowabi D, Quilty L, Spånberg J, Volberg R, Walker D et al. Conceptual framework of harmful gambling: an international collaboration. 2018. Third edition. Gambling Research Exchange Ontario (GREO).
6. Latvala T, Lintonen T, Konu A. Public health effects of gambling—debate on a conceptual model. *BMC Public Health*. 2019;19(1):1–16.
7. Marionneau V, Egerer M, Raisamo S. Frameworks of gambling harms: a comparative review and synthesis. *Addict Res Theory*. 2023;31(1):69–76.
8. Wardle H, Reith G, Langham E, Rogers RD. Gambling and public health: we need policy action to prevent harm. *BMJ*. 2019;365:1807.
9. Wardle H, Degenhardt L, Marionneau V, Reith G, Livingstone C, Sparrow M, et al. The lancet public health commission on gambling. *Lancet Public Health*. 2024;9(11):e950–94.
10. Fiskaali A, Stenbro AW, Marcussen T, Rask MT. Preventive interventions and harm reduction in online and electronic gambling: A systematic review. *J Gambl Stud*. 2023;39(2):883.
11. Velasco V, Scattola P, Gavazzeni L, Marchesi L, Nita IE, Giudici G. Prevention and harm reduction interventions for adult gambling at the local level: an umbrella review of empirical evidence. *Int J Environ Res Public Health*. 2021;18(18):9484.
12. Blank L, Baxter S, Woods HB, Goyder E. Interventions to reduce the public health burden of gambling-related harms: A mapping review. *Lancet Public Health*. 2021;6(1):e50–63.
13. Currie SR, Miller N, Hodgins DC, Wang J. Defining a threshold of harm from gambling for population health surveillance research. *Int Gambl Stud*. 2009;9(1):19–38.
14. Drawson AS, Tanner J, Mushquash CJ, Mushquash AR, Mazmanian D. The use of protective behavioural strategies in gambling: A systematic review. *Int J Ment Health Addict*. 2017;15(6):1302–19. <https://doi.org/10.1007/s11469-017-9754-y>
15. McMahon N, Thomson K, Kaner E, Bamba C. Effects of prevention and harm reduction interventions on gambling behaviours and gambling-related harm: an umbrella review. *Addict Behav*. 2019;90:380–8.
16. Ukhova D, Marionneau V, Nikkinen J, Wardle H. Public health approaches to gambling: A global review of legislative trends. *Lancet Public Health*. 2024;9(1):e57–67.
17. Mouneyrac A, Le Floch V, Lemerrier C, Py J, Roumegue M. Promoting responsible gambling via prevention messages: insights from the evaluation of actual European messages. *Int Gambl Stud*. 2017;17(3):426–41. <https://doi.org/10.1080/14459795.2017.1350198>
18. Puska P, Jäini P. The North Karelia project: prevention of cardiovascular disease in Finland through population-based lifestyle interventions. *Am J Lifestyle Med*. 2020;14(5):495–9.
19. Akter S, Islam MR, Rahman MM, Rouyard T, Nsashivi RS, Hossain F, et al. Evaluation of population-level tobacco control interventions and health outcomes: A systematic review and meta-analysis. *JAMA Netw Open*. 2023;6(7):e2322341–2322341.

20. Goel R, Tiwari G, Varghese M, et al. Effectiveness of road safety interventions: an evidence and gap map. *Campbell Syst Rev*. 2024;20(1):e1367. <https://doi.org/10.1002/cl2.1367>
21. Tavakkoli M, Torkashvand-Khah Z, Fink G, Takian A, Kuenzli N, De Savigny D, et al. Evidence from the decade of action for road safety: A systematic review of the effectiveness of interventions in low- and middle-income countries. *Public Health Rev*. 2022;43:1604499. <https://doi.org/10.3389/phrs.2022.1604499>
22. den Braver NR, Garcia Bengoechea E, Messing S, Kelly L, Schoonmade LJ, Volf K, et al. The impact of mass-media campaigns on physical activity: A review of reviews through a policy lens. *Eur J Public Health*. 2022;32(Suppl 4):71–83.
23. Babor T. *Alcohol. No ordinary commodity: research and public policy*. Oxford: Oxford University Press. 2010.
24. Giesbrecht N, Bosma LM, editors. *Preventing Alcohol-Related Problems: Evidence and Community-Based Initiatives*. Am Public Health Assoc. 2017. <https://doi.org/10.2105/9780875532929>
25. Holmes J, Beard E, Brown J, Brennan A, Meier PS, Michie S, et al. Effects on alcohol consumption of announcing and implementing revised UK low-risk drinking guidelines: findings from an interrupted time series analysis. *J Epidemiol Community Health*. 2020;74(11):942–9.
26. Quatremère G, Guignard R, Cogordan C, Andler R, Gallopel-Morvan K, Nguyen-Thanh V. Effectiveness of a French mass-media campaign in Raising knowledge of both long-term alcohol-related harms and low-risk drinking guidelines, and in Lowering alcohol consumption. *Addiction*. 2023;118(4):658–68. <https://doi.org/10.1111/add.16107>
27. Room R, Rehm J. Clear criteria based on absolute risk: reforming the basis of guidelines on low-risk drinking. *Drug Alcohol Rev*. 2012;31(2):135–40. <https://doi.org/10.1111/j.1465-3362.2011.00398.x>
28. Hodgins DC, Young MM, Currie SR, Abbott M, Billi R, Brunelle N, et al. Lower-risk gambling limits: linked analyses across eight countries. *Int Gambl Stud*. 2023;23(2):328–44. <https://doi.org/10.1080/14459795.2022.2143546>
29. Young MM, Hodgins DC, Currie SR, Brunelle N, Dufour M, Flores-Pajot MC, et al. Not too much, not too often, and not too many: the results of the first large-scale, international project to develop lower-risk gambling guidelines. *Int J Ment Health Addict*. 2022. <https://doi.org/10.1007/s11469-022-00896-w>
30. Young MM, Hodgins DC, Brunelle N, Currie S, Dufour M, Flores-Pajot M et al. Developing lower-risk gambling guidelines. Presentation at the Gambling Harm Conference. Geelong, Australia. Can Centre Subst Use Addict. 2018. <https://responsiblegambling.vic.gov.au/documents/425/Developing-low-risk-gambling-guidelines-GHC2018.pdf>
31. Canadian Centre on Substance Use and Addiction: LRGG Lower-Risk Gambling Guidelines. [www.gamblingguidelines.ca](http://www.gamblingguidelines.ca). 2024.
32. Currie S, Flores-Pajot M, Hodgins D, Nadeau L, Paradis C, Robillard C, et al. A research plan to define Canada's first low-risk gambling guidelines. *Health Promot Int*. 2019;34(6):1207–17.
33. Allami Y, Hodgins DC, Young M, Brunelle N, Currie S, Dufour M, et al. A meta-analysis of problem gambling risk factors in the general adult population. *Addiction*. 2021;116(11):2968–77.
34. Currie SR, Brunelle N, Dufour M, Flores-Pajot MC, Hodgins D, Nadeau L, et al. Use of self-control strategies for managing gambling habits leads to less harm in regular gamblers. *J Gambl Stud*. 2020;36(2):685–98. <https://doi.org/10.1007/s10899-019-09918-0>
35. Flores-Pajot MC, Atif S, Dufour M, Brunelle N, Currie SR, Hodgins DC, et al. Gambling self-control strategies: A qualitative analysis. *Int J Environ Res Public Health*. 2021;18(2):586. <https://doi.org/10.3390/ijerph18020586>
36. Dowling NA, Youssef GJ, Greenwood C, Merkouris SS, Suomi A, Room R. The development of empirically derived Australian low-risk gambling limits. *J Clin Med*. 2021;10(2):167.
37. Dowling NA, Greenwood CJ, Merkouris SS, Youssef GJ, Browne M, Rockloff M, Myers P. The identification of Australian low-risk gambling limits: A comparison of gambling-related harm measures. *J Behav Addict*. 2021;10(1):21–34. <https://doi.org/10.1556/2006.2021.00012>
38. Rochester E, Cunningham JA. Applying the Canadian low-risk gambling guidelines to gambling harm reduction in England. *J Gambl Stud*. 2024;40(1):21–8.
39. Matilainen R. Production and consumption of recreational gambling in twentieth-century Finland. University of Helsinki. 2017. <https://helda.helsinki.fi/server/api/core/bitstreams/59a0b7b3-6f3f-4f7b-984e-00b86c52ccfe/content>
40. Egerer M, Marionneau V. Cultures and spaces of convenience gambling. *Nord Stud Alcohol Drugs*. 2019;36(2):125–39.
41. Finnish Institute for Health and Welfare (THL). Finnish Gambling 2023. Statistical Report 15/2024.
42. Selin J, Okkonen P, Raisamo S. Accessibility, neighborhood socioeconomic disadvantage and expenditures on electronic gambling machines: A Spatial analysis based on player account data. *Int J Health Geogr*. 2024;23(1):19.
43. Palomäki J, Latvala T, Salonen AH, et al. Testing the acceptability and feasibility of the lower-risk gambling guidelines in Finland. *J Behav Addict*. 2024. <https://doi.org/10.1556/2006.2024.00065>
44. Bowen DJ, Kreuter M, Spring B, Cofta-Woerpel L, Linnan L, Weiner D, et al. How we design feasibility studies. *Am J Prev Med*. 2009;36(5):452–7.
45. Gaskell G. Individual and group interviewing. In: Bauer MW, Gaskell G, editors. *Qualitative researching with text, image and sound: A practical handbook*. London: SAGE. 2000;38–56.
46. Morgan D. *Focus Groups as Qualitative Research*. 2nd ed. 1997. <https://doi.org/10.4135/9781412984287>
47. Lerkkanen T, Egerer M, Alanko A, et al. Citizens' perceptions of gambling regulation systems: A new meaning-based approach. *J Gambl Issues*. 2020;43:84–101.
48. Egerer M, Alanko A, Hellman M, Järvinen-Tassopoulos J, Koivula P, Lerkkanen T. Rahapelitarjonnan Tehtävä Ja Julkisuuskuvaa Suomessa: Haastattelututkimus Rahapelipoliittisista mielipiteistä. Publications of the faculty of social sciences no 100. Helsinki: University of Helsinki. 2018.
49. Canadian Centre on Substance Use and Addiction. LRGG Lower-Risk Gambling Guidelines. 2021. <https://gamblingguidelines.ca/app/uploads/2021/01/LRGG-Lower-Risk-Gambling-Guidelines-Poster-2021-en.pdf>
50. Ferris J, Wynne H. The Canadian Problem Gambling Index (Final report). Ottawa, Ontario, Canada: Canadian Centre on Substance Abuse. 2001. [https://www.greo.ca/Modules/EvidenceCentre/files/Ferris et al\(2001\)The\\_Canadian\\_Problem\\_Gambling\\_Index.pdf](https://www.greo.ca/Modules/EvidenceCentre/files/Ferris%20et%20al%20(2001)%20The%20Canadian%20Problem%20Gambling%20Index.pdf)
51. Hing N, Russell A, Blaszczynski A, Gainsbury S. What's in a name? Assessing the accuracy of self-identifying as a professional or semi-professional gambler. *J Gambl Stud*. 2015;31(4):1799–818. <https://doi.org/10.1007/s10899-014-9507-9>
52. Deterding NM, Waters MC. Flexible coding of in-depth interviews: A twenty-first-century approach. *Sociol Methods Res*. 2021;50(2):708–39.
53. Pepin JR, Cohen PN. Nation-level gender inequality and couples' income arrangements. *J Fam Econ Issues*. 2021;42(1):13–28.
54. Matilainen R. Doing the pools became so important that a Saturday night was unthinkable without it: gambling and gamblers' experiences in 20th century Finland. *Ludica*. 2006;12:137–46.
55. Matilainen R, Raento P. Learning to gamble in changing Sociocultural contexts: experiences of Finnish casual gamblers. *Int Gambl Stud*. 2014;14(3):432–46.
56. Mäkelä K, Tigerstedt C. Changing responsibilities of nordic alcohol monopolies. *Contemp Drug Probl*. 1993;20:189–202.
57. Prior Jonson E, Lindorff M, McGuire L. Paternalism and the pokies: unjustified state interference or justifiable intervention? *J Bus Ethics*. 2012;110:259–68.
58. Rowe N. Academic & scientific poster presentation. Springer. 2017.
59. Korhonen J, Seppälä N, Finland. The strength of a high-trust society. Corporate social responsibility across Europe. Berlin, Heidelberg: Springer Berlin Heidelberg. 2005;13–22.
60. Salminen A, Ikola-Norbacka R. Trust, good governance and unethical actions in Finnish public administration. *Int J Public Sect Manag*. 2010;23(7):647–68.
61. Levesque C, Sanger N, Edalati H, Sohi I, Shield KD, Sher K, Stockwell T, Butt P, Paradis C. A systematic review of relative risks for the relationship between chronic alcohol use and the occurrence of disease. *Alcohol Clin Exp Res*. 2023;47(7):1238–55.
62. Latvala TA, Lintonen TP, Browne M, Rockloff M, Salonen AH. Social disadvantage and gambling severity: a population-based study with register-linkage. *Eur J Public Health*. 2021;31(6):1217–23. <https://doi.org/10.1093/eurpub/ckab162>
63. Montiel I, Ortega-Barón J, Basterra-González A, González-Cabrera J, Machimbarrena JM. Problematic online gambling among adolescents: A systematic review about prevalence and related measurement issues. *J Behav Addict*. 2021;10(3):566–86. <https://doi.org/10.1556/2006.2021.00055>
64. de Lacy-Vawdon C, Vandenberg B, Livingstone C. Power and other commercial determinants of health: an empirical study of the Australian food, alcohol, and gambling industries. *Int J Health Policy Manag*. 2023;12(1):1–14. <https://doi.org/10.34172/ijhpm.2023.7723>
65. Johnson RH, Pitt H, Randle M, Thomas SL. A scoping review of the individual, socio-cultural, environmental and commercial determinants of gambling for

older adults: implications for public health research and harm prevention. *BMC Public Health*. 2023;23(1):362.

66. Egerer M. Institutional footprints in the addiction image: A focus-group study with Finnish and French general practitioners and social workers. Publications of the Department of Social Research, University of Helsinki. 2014.

### **Publisher's note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.