# Customized Responsible Gambling Messaging as a Tool to Encourage Help-Seeking Abstract

Responsible gambling messages are widely used as a tool to enable informed choice and encourage appropriate gambling behaviour. It is generally accepted that gamblers have different levels of risk of developing gambling problems and require various harm minimisation tools and resources. Therefore, it is reasonable to expect that responsible gambling messages should be customised and target specific groups of gamblers. This project aimed to understand differences between cohorts of gamblers and design targeted messages to increase use of responsible gambling tools. Focus groups were held to test messages for specific cohorts: young adults (18-24 years), seniors (60+ years), frequent gamblers (weekly), and gamblers of skill-based games (poker, sports betting). As hypothesised, there were different preferences and responses to messages between the groups. Seniors preferred messages about limit setting, while young adults and frequent gamblers responded to messages about their own play and expertise. Skill game gamblers were interested in the odds of winning and their own outcomes over time. However, all groups agreed that using positive, non-judgemental language in messaging is important. This research makes an important contribution to the field by demonstrating the wording of message content will likely effectiveness across various groups of gamblers to engage gambling harm reducing tool.

**Keywords**: customised messaging, targeting, prevention messages, problem gambling, responsible gambling

## Introduction

Many interventions are available for gamblers. Across jurisdictions programs may include psychosocial treatment, awareness campaigns, employee response training programs, player education programs, casino exclusion programs, and technological innovations such as budgeting tools. But while programs are often available, there are typically barriers to helpseeking by those who would benefit from their use. These issues include stigma, shame, lack of knowledge, unwillingness to admit a problem, and/or wishing to handle a problem by oneself (Hing, Nuske, Gainsbury, & Russell, 2016; Kim, Wohl, Salmon, &Santesso, 2017; Suurvali, Cordingley, Hodgins, & Cunningham, 2009). Effective interventions are important to assist gamblers at various levels of risk to acquire and apply the requisite skills and knowledge necessary to control their gambling to within affordable levels. Encouraging gamblers to seek help before their problems become severe would reduce harm and reduce the burden on emergency and treatment services. However, individuals who engage in risky gambling, but are not experiencing serious problems appear to be a relatively hard to reach population in terms of being motivated to seek help.

Given that modern player tracking systems can now display user-specific information on electronic gambling machine screens or personal electronic devices, there has been substantial interest within the academic and responsible gambling (RG) community in using customized RG messages to improve informed decision making (Langham, Rockloff, Browne, &Best, 2017). Prevention messages are one of the most widely used public health strategies for reducing harms from gambling, seeking to both lead to direct changes in behaviours/beliefs and to inform the public of risks or RG programs. With recent technological changes in gambling products, institutions responsible for executing RG programs have hypothesised that customized messages may be more effective than a one-size-fits-all messaging program. For example, in the Responsible Gambling Council's RG Check accreditation program there is an emphasis placed on the availability of personalized and specialized information for player communications. As a wide-reaching tactic that is often the first-point of contact with gamblers, even small improvements in RG marketing communication effectiveness can have large downstream impacts on harm.

In this paper, we aim to develop and test messages targeting various segments of gamblers in Manitoba, Canada, segmented based on information available in typical player account databases. Messages are framed to increase gamblers' motivation to seek and use relevant resources. As part of this study, we review broader public health messaging literature for its relevance to responsible gambling messages, then we test a series of messages with a community sample of gamblers. We make an academic contribution to the public health messaging literature by framing categories by which gambling messages should be customized to facilitate engagement with harm minimisation resources. We also make an applied contribution by testing a set of messages that could be adopted by prevention programs within a cohort of end-users.

## **Responsible gambling**

Gambling disorder is an addictive disorder described as, "persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress" (American Psychiatric Association, 2013). The disorder is characterised by a range of symptoms, including distorted cognitions, chasing losses, preoccupation with gambling, and inability to stop (Hodgins, Stea, and Grant, 2011; Kim, Wohl, Salmon, & Santesso, 2017; Suurvali, Cordingley, Hodgins, & Cunningham, 2009). Research indicates that most gamblers support the availability of RG tools, particularly those that assist customers to play within their means, such as player feedback and regular financial statements (Gainsbury, Parke, & Suhonen, 2013; Gainsbury, Russell, Blaszczynski, & Hing, 2015; Griffiths, Wood, & Parke, 2009; Wood & Griffiths, 2008). However, customer engagement with RG tools appears to be relatively low.

Broadly, there is a need to more effectively encourage use of RG resources. In a recent British Columbia study, Cohen, McCormick, and Davies (2017) estimate that only 5% of the moderate to high-risk population are enrolled in the province's self-exclusion program. Within Australia, one site reported that only 1,600 out of 200,000 active customers (0.8%) used the deposit limit tool available and 900 self-excluded from the site (0.45%) (Gainsbury, 2012). Another site reported a higher but still arbitrarily low rate, with roughly 12,000 customers out of 200,000 (6%) utilising deposit loss limits and self-exclusion. Reports from a European online site indicate that only 1.2% of users self-imposed limits on their expenditure (Nelson et al., 2008). Research on land-based gambling limit-setting tools suggest the vast majority of gamblers positively respond to the concept of pre-commitment, but need encouragement to utilise these tools (Bernhard et al, 2006; Omnifacts Bristol Research, 2007).

Not all problem gamblers and pathological gamblers require formal interventions. Many gamblers recover without formal treatment (Cunningham, Hodgins, & Toneatto, 2008; Hodgins, Wynne, &Makarchuk, 1999; Slutske, 2006). Research suggests that gamblers with moderate or mild problems can employ practical, problem-focused strategies and that those gamblers might benefit from the development of easily accessible resources and interventions (Toneatto et al., 2008). Gamblers typically prefer to address their problems unaided and may be more motivated to use self-guided interventions than formal treatment (Gainsbury, Hing, & Suhonen, 2014; Hing, Nuske, & Gainsbury, 2012). For those populations, more effective RG messages could

also communicate direct content (e.g. RG tips), rather than availability of programs and resources.

#### Message content

Important elements of consumer communication include language, tonality, and message content (Argo & Main, 2004; Cox et al., 1997). Message content refers to the degree of directness, simplicity and comprehension of the words that communicates the appropriate level of danger, consequences and/or actions to avoid harm (Wolgater, 2006). The type of language used in warning messages is found to have varying impacts on individuals depending on culture, emotional state, level of gambling problem, and the consumer's sense of self-esteem (Rothman, Kelly, Hertel, & Salovey, 2003; Rothman & Salovey, 1997; Rothman, Stark, & Salovey, 2006).

Historically, RG messages aimed to inform gamblers of factual information about the probabilities of winning or how outcomes are determined. These messages were predicated on the use of warnings for alcohol and tobacco products, warning consumers about the risks associated with excessive or inappropriate use (e.g., risks of driving while intoxicated and smoking while pregnant). The use of informative or educational messages is based on the concept of problem gambling being a result of irrational thoughts and beliefs It was hypothesized that if gamblers understood the games and probabilities of winning they would be able to make an informed decision regarding their involvement (Blaszczynski et al., 2004; Blaszczynski & Nower, 2002; Sharpe, 2002). However, research suggests that effectively communicated knowledge does not modify irrational beliefs or erroneous estimations of the chances of winning (Benhsain & Ladouceur, 2004; Monaghan, 2008; Monaghan, Blaszczynski, & Nower, 2009; Steenbergh et al., 2004; Williams & Connolly, 2006).

The failure of information to modify behaviour is likely due to cognitive biases that enable gamblers to understand the low probabilities of winning, yet to believe that they may still have a chance to win (Williams & Connolly, 2006). Research has shown that even when informative messages are accurately recalled, indicating awareness of the probabilities of winning, people still believe that the chances of winning are greater than the information contained within messages and no behavioural changes occur (Monaghan & Blaszczynski, 2007; Monaghan & Blaszczynski, 2010a). While there is support that informative messages can correct irrational beliefs, there is little evidence that such signs modify actual gambling behaviour (Steenbergh et al., 2004; Williams & Connolly, 2006).

## **Message framing**

Positive or gain-framed messages discuss the benefits of improvements that can be made, while negative or loss-framed messages contain information about harmful consequences and hazards related to risky behaviours. Although educating consumers about the risks of a product is important to enable informed choice, research on attitudes and persuasion indicates that a sole focus on negative impacts may be too narrow (Leventhal, 1970). Messages are more likely to be persuasive if they promote positive attitudes, which is particularly effective if they are mutually exclusive (e.g., setting deposit limits vs. having no limits) (Strahan et al., 2002).

The use of positive framing of messages has been found to have a greater impact than negative framing (Akl, Oxman, Herrin, & Vist, et al., 2011). For example, neuroimaging research has found that gain-framed messages are more effective in improving risky choice behaviours than loss-framed message among individuals with substance-use disorders (Fukunaga, Bogg, Finn, & Brown, 2013; Krawitz, Fukunaga, & Brown, 2010). Creating persuasive positively-framed messages that aim to target at-risk populations may assist consumers to resist or desist from unsafe behaviours (Fukunaga et al., 2013; Monaghan & Blaszczynski, 2010b).

## Self-appraisal messages

To control their behaviour, individuals must monitor actions to evaluate whether they are on track and if further self-regulatory effort is needed. Self-appraisal messages encourage consumers to reflect on their own personal situation and take appropriate actions. Self-appraisal messages are expected to increase consumers' ability to engage in self-referential processing and to perceive the message as self-relevant (Strecher, 2007). Part of the effectiveness of selfappraisal messages may come from the reliance on individuals to draw their own conclusions rather than be provided with statements. Persuasion research shows that when individuals generate arguments and conclusions themselves these are more convincing than statements provided by external sources (Glock, Müller, & Ritter, 2013). This is likely as individuals tend to trust themselves. Self-generated arguments are often perceived as more accurate than information provided by external sources (Hoch & Deighton, 1989; Levin, Johnson, & Chapman, 1988; Mussweiler & Neumann, 2000). Messages that imply a outcome but allow perceivers to draw their own conclusions may reduce feelings of resentment and enhance the persuasiveness of messages (Kardes et al., 1994).

In a trial using simulated EGMs in laboratory and real gambling venues, Monaghan and Blaszczynski (2010a) demonstrated that messages encouraging self-appraisal (e.g., "Have you spent more than you intended?") had a significantly greater reported effect on thoughts and behaviours than informative messages. Self-appraisal messages facilitated participants within-session awareness of the time spent playing, the likelihood of taking a break and length of gambling sessions both within the current (simulated) session and in subsequent real gambling

sessions in the two weeks following the experimental session. In a subsequent in-situ trial of dynamic warning messages, self-appraisal messages phrased as a question were recalled to a greater extent than informative messages phrased as a statement. They also had a greater reported impact on facilitating immediate behavioural change towards more RG (Gainsbury, Aro et al., 2015b). Self-appraisal messages also encouraged participants to have more realistic thoughts regarding gambling and the chances of winning.

# **Specific and Action Focused**

People are more likely to change their behaviour if they believe that they can succeed (high self-efficacy) (Strahan et al., 2002). To increase perceived self-efficacy, messages can clearly state what action is required to achieve the end goal. Messages can provide specific information about the process of the desired behaviour, such as setting a deposit limit. Increasing the applicability of a message often involves using less abstract concepts such as specific actions and can increase message compliance (Wright, 1979). Research with smokers found that warning messages should improve the how-to-quit content as messages contained insufficient information to help them progress towards quitting (Guillaumier et al., 2015). Research on television campaigns that guide smokers through the steps to become an ex-smoker has shown positive results (Vallone et al., 2010; Vallone et al., 2011). However, messages still must be simple and clear as messages that promote confusion are not effective (Yank et al., 2015).

Making messages specific may increase user engagement. In a trial to encourage users to read about problem gambling messages that suggested specific information (e.g., "10 gambling commandments") were more five times more effective (in terms of web site click throughs) than informative messages commonly used (e.g., "How problem gambling works"). Usability principles are also important in encouraging player interaction with tools (Matulewicz, 2015).

For example, messages should be simple and specific, with one action (e.g., "click here") suggested rather than multiple choices. To increase transparency users should be informed what will happen when they 'click through' links (Matulewicz, 2015). A sense of urgency can also be introduced using phrases such as "Have you... yet?". This is consistent with research on health warnings demonstrating that messages that are positive and have a sense of urgency were felt to be a strong motivator for action (Yank et al., 2015).

# **Social norms**

Subjective norms and social approval have a strong influence on behaviour. The effectiveness of RG messages may be increased if these communicate that the desired behaviour is valued or expected by other people within the individual consumer's reference group. The use of norms might be particularly useful for groups that perceive themselves to be different from the general population. For example, adolescents and young adults are more highly influenced by social and self-presentation than adults (Biglan et al., 1984; Presti et al., 1992).

Broad behavioural data can be used to provide subjective norms, for example, messages may provide information about the proportion of those in a targeted group who set deposit limits and provide this information to gamblers (e.g., '60% of poker players on this site set deposit limits'). This is likely to be most effective if a considerable amount of people in each group engage in the desired behaviour to create a sense that the target behaviour is a social norm. Messages designed to encourage gambler interaction with RG tools that emphasise social norms and encourage commitment to a socially appropriate goal have been shown to be more effective than informative RG messages (Matulewicz, 2015).

# **Targeted messaging for gamblers**

Traditionally, attempts to warn players of the risks associated with gambling and direct them to engage with responsible gambling resources have been done via signs in venues with, responsible gambling slogans, and details of problem gambling telephone numbers. Many studies have found that these messages are largely ignored by gamblers and they fail to influence player's thoughts or behaviours (Hing, 2003; Focal Research, 2004; Monaghan & Blaszczynski, 2010). To be effective, RG messages must engage the gambler's cognitive, emotional, and motivational faculties. Further, messages are effective only if they alter behaviours of concern (Hadden, 1991; Woglater & Dingus, 1999). The extent to which the message is read, absorbed, and acted upon is dependent upon the personal relevance of the message, the targeted recipient's capacity to assimilate the information, and their motivation to respond (Wolgater, 2006). It is unreasonable to expect that messages broadcast to all gamblers can be impactful given the many differences between players, including the type of resources they would benefit from using.

New technology linking player accounts have the potential to enable sophisticated RG strategies, including personalised messages that target players based on individual characteristics and patterns of play (Gainsbury, 2011). For example, gambling providers can send direct emails, online messages, or SMS to customers, and within venues where loyalty cards are used, operators can send personalised RG messages to customers through electronic gaming machine screens. Tailored messaging has been shown to outperform traditional, static health information strategies and more likely to be read, remembered and viewed as personally relevant (Bennett & Glasglow, 2009). Importantly, tailored messaging has been shown to be important in motivating change in problem drinkers and problem gamblers, irrespective of whether they commence treatment or not (Cunningham et al., 2001; Wood & Williams, 2009).

#### Segmenting gambling cohorts

Targeted messages should be particularly useful in populations where there is great variability between members (Bull, Kreuter, & Scharff, 1999). One key difference between gamblers is age. Young adults (aged 18-24) appear to more manifest gambling-related problems compared to other age cohorts (Carbonne, Vitaro, Brendgen, & Tremblay, 2015; Volberg, Gupta, Griffiths, Ólason, & Delfabbro, 2010; Blinn-Pike, Worthy, & Jonkman, 2010). The reception of warning messages by young adults is often considered to be different from the general population (Cox et al., 1997; Rogers et al., 2000). In their meta-analysis of evidence on warning message effectiveness, Argo and Main (2004) argue that age correlates negatively with warning perception, although they note relatively limited empirical evidence to support this. Young adults tend to perceive themselves as invulnerable to the negative consequences of risky behaviours, and have difficulty relating to negative consequences that may occur in the future (Fischer et al., 1993; Fox, Krugman, Fletcher, & Fischer, 1998; Leventhal, Glynn, & Fleming, 1987; Mazanov & Byrne, 2007). Young people tend to underestimate the severity of their gambling, fail to recognise and accept gambling problems, and are less likely to seek help (Hardoon, Derevensky & Gupta, 2003). They do not necessarily have a poorer understanding of gambling odds than adults, but they are more prone to erroneous beliefs about gambling as well as beliefs that gambling can be controlled (Delfabbro & Winefield, 2000; Dowling et al., 2004; Gupta & Derevensky, 2000). Due to the increased relevance of social norms for youth, manipulating social context may increase the effectiveness of messages for this target cohort (Arthur & Quester, 2004). For example, smoking and drug prevention advertisements highlighting social implications appear to be more persuasive than warnings of physiological illnesses with adolescents and young adults (Ho, 1998; Schoenbachler & Whittler, 1996).

In contrast, older adults are another group with unique risks and importance. According to the 2014 Canadian Community Health Survey (Canada, 2014), over 67% of persons aged 65 or more gamble, and many scholars have emphasized the importance of protecting this group from the harms of gambling, noting the risk factors associated with fixed-incomes, social isolation, bereavement, and increased leisure time in retirement (Stitt, Giacopassi, & Nichols, 2003; Tira, Jackson, & Tomnay, 2014; Tirachaimongkol, Jackson, & Tomnay, 2010). One key difference between seniors and other groups is that they show more obsessive passion for gambling when their behavior is problematic (Philippe et al., 2007). They also show a greater likelihood of responding to digital marketing strategies than other sub-groups (Lewis & Reiley, 2013).

In addition to segmenting gamblers based on demographic characteristics, there are also likely to be differences in reception to RG messages between gamblers who use different products. Research suggests that gamblers who engage in games that involve an element of skill or perceived skill (e.g., poker, sports betting) view themselves as different from other types of gamblers, in that they use their skill and experience to increase their odds of winning (Bjerg, 2010). For example, poker players are found to not connect general gambling terminology to their experiences (Abarbanel, Bernhard, Singh, & Lucas, 2015). Online poker players tend to exhibit impulsive personality traits, are high sensation seekers, and enjoy strong feelings of arousal, which may contribute toward problematic gambling behavior (Barrault & Varescon, 2013; Hopley & Nicki, 2010). With regard to available responsible gambling tools, less skillful online poker players responded more positively to these tools than did more skillful online players (Gainsbury, Parke, & Suhonen, 2013). Gainsbury, Suhonen, and Saastamoinen (2014) found that online poker players are in general less likely to chase losses than online casino gamblers. Auer & Griffiths (2013) investigated the efficacy of different responsible gambling tools and further determined that poker players responded best to time limit tools while other forms of gambling were better served by monetary limit-setting tools.

Finally, frequent gamblers – often characterized as participation in gambling once a week or more – have been identified as having greater risk for gambling problems. Research has shown that frequency of participation is a highly predictive risk-factor for gambling related problems (Afifi, Laplante, Taillieu, Dowd, & Shaffer, 2013; Currie, Hodgins, Wang, El-Guebaly, Wynne, & Chen, 2006; Hodgins et al., 2012), and may be a behavioral marker for gambling disorder (Braverman, & Shaffer, 2010; LaBrie, Kaplan, LaPlante, Nelson, & Shaffer, 2008).

#### Methods

The study protocol was reviewed and approved by the Human Subjects Ethical Review Committee at [blinded]. A series of focus groups were conducted to gain feedback on the wording of various RG messages created based on the literature review for each of four selected player cohorts. Initial messages were created based on the literature review and reviewed by all authors for content and relevance within the literature framework. Messages were then reviewed for appropriate length.

Focus groups were used because they are socially-oriented, in which participants listen to others' opinions and understandings in forming their own responses (Marshall & Rossman, 2011). While focus groups typically have high face validity, small group size and the results may not be statistically generalizable (Creswell, 2003; Marshall & Rossman, 2011). The results, however, can still provide meaningful insights into how the participants respond to the messages and their feedback on message wording and content. We did not have a coding rubric/coding software. Coding categories were established based on the literature review, as listed in the

"analysis" section of the "methods" - message tone, potential engagement, personalization options, numbers, and terminology (e.g., gambling v. gaming, player v. gambler).

The four player cohorts were identified based on the review of segmenting cohorts and typically available gambling database information. In total, 39 participants attended the four focus groups:

- 1. *Young Adults* those aged 18-24 years old (N = 10, 6 male)
- 2. Seniors those aged 60 years old or older (N = 10, 4 male)
- 3. *Skill Game Gamblers* those who play games involving an element of skill, such as poker or sports betting (no age qualification for this group) (N = 10, 7 male)
- 4. *Frequent Gamblers* those who have gambled once per week or more often (no age qualification for this group) (N = 9, 6 male)

Participants were selected and screened by telephone using a database comprised of randomly selected households in Manitoba, Canada. Participants qualified if they were over the age of 18 and had gambled online during the prior 12 months, to ensure the groups were formed with participants who were potential recipients of these types of messages. Participant ages for the skill game and frequent gambler groups ranged from 18-59. All participants were provided with a \$50 incentive for their participation.

The focus groups ranged from 60-78 minutes long and were conducted online using iTracks, a formal focus group online platform. The iTracks platform conducts focus groups in a written format, similar to an online chat room.

Focus groups were structured to elicit responses to the proposed messages, with an interest in collecting participant feedback on six pre-developed messages per group. The messages were presented in five cases; each focused on a different RG tool. Participants were then asked why they would or would not engage with the linked tool, and if there were any changes they would make to the message to make it more relevant to them. Finally, participants

discussed the types of messages they found most effective, and offered up their own wording, themes, or specific phrases that would get them to engage with RG tools.

## Analysis

The transcriptions of the focus groups were subjected to a content analysis with focused coding approach. Content analysis was used because it provides a "careful, detailed, systematic examination of a particular body of material in order to identify patterns, themes, biases, and meanings" (Berg & Lune, 2011, p. 349). In focused coding, researchers identify themes and look for associated data fitting under categories of interest (Saldana, 2016). Coding focused on statements made about message tone, potential engagement, personalization options, numbers, and terminology (e.g., gambling v. gaming, player v. gambler). To establish inter-rater reliability, two researchers independently coded the data set, then together reviewed and settled one discrepancy in coding by considering its content, theme definitions, and extant literature support.

#### Results

## **Young Adults**

Young Adults were particularly responsive to message tone, especially messages that were perceived as condescending. One participant requested messaging that "does not sound like it is 'blaming you,'" and several others followed along the same train of thought, asking for messages that were not accusatory or patronizing, but rather were straightforward and honest in their phrasing. Simple messages were preferred, as one participant explained, and not "dressed up in language."

Young Adults also indicated a preference for messaging that provided tips, to show how they can save money by using the linked RG skills and tools. Some follow-up comments suggested that participants were interested in messages with tips that helped them become more successful gamblers (i.e., to win more money). Other tools that drew a positive response from Young Adults included the Play Summary tool, which was identified as a useful tool for accurately recording play when gamblers' own perception might be distorted, and the quiz testing knowledge of gambling odds, which was labeled as "beneficial." Conversely, the Young Adult group indicated a distinct lack of interest in the self assessment quiz, which they viewed as not useful.

Contrary to extant research from behavioural economics, one participant suggested that if they had a gambling problem, they would be more interested in seeing the potential negative realities, similar to warning messages on cigarette packs.

# **Older Adults**

Like the Young Adults, Older Adults were also concerned about tone, with one participant stating that they wanted messages that "treats [one] like a responsible adult," and not like "my mother wagging her finger at me." Other participants suggested avoiding "condescending messages," and that it felt "insulting" to "imply that [they are] foolish to not set a limit", when provided a message on limit-setting tools. Beyond this concern, the group was positive about the use of messages in general, suggesting that they be clever, upbeat, and humorous, with reminders to keep the game fun. A few participants suggested that additional messages that show negative consequences of problem gambling would also be useful, as well as information on where to get help if a gambler thinks they are losing control.

Older Adults identified the Play Summary as a useful tool, though many indicated they already set limits when they play. In addition, the quiz to test gambling knowledge and the limit setting tools were selected as tools that the group would seek out if they received a message promoting the tool.

# **Skill Game Gamblers**

Skill Game Gamblers were largely interested in blunt, straightforward language in their messages, with one participant requesting messages that "[call] a spade a spade." Messages that were simple and direct, such as those that included specific values for time and money spent gambling. Matching this preference, Skill Game Gamblers indicated that the Play Summary was a valuable tool for them, making them think about their own budget. The group also requested individualized messages with their personal spend numbers, as "seeing real numbers tells the story."

The quiz testing gambling knowledge was also considered useful, primarily for the purpose of confirming their own knowledge. One participant also indicated that a message promoting this kind of quiz would get them to engage with the tool to enhance their knowledge of responsible gambling, stating, "if I could learn something that could help me place a responsible bet, I'd read on."

Some Skill Game Gamblers also suggested that messages should include reminders of the ramifications of overspending, and reminders that the odds are against winning and that in the long run, the house always wins.

Skill Game Gamblers were the only group to speak to terminology use in describing those who gamble, suggesting that use of the term "gamble" or "gambler" instead of "play" or "player" would be useful reminders that wagers involve at least some chance component.

## **Frequent Gamblers**

As with the other groups, Frequent Gamblers emphasized the need for positive language in RG messaging, and to avoid any language that might be accusatory or might make someone feel guilty about their gambling behaviour. Simple, short messages were preferred, such as reminders to "keep it a game." One participant further recommended messaging include information to educate family and friends who might need the RG tools. Several Frequent Gamblers requested individual spend numbers as a reminder of their play, paralleling the request of skill game gamblers.

Frequent Gamblers were the only group to not positively endorse the Play Summary tool, with most participants indicating they were already aware of their limits and spend, and thus felt they did not need the tool. Also, distinct from other groups, Frequent Gamblers responded positively to the self-assessment tool, expressing curiosity about their classification. Several participants noted that they "love taking short quizzes" and that they were interested into which player type they would fall.

## **Group Comparisons**

All groups agreed that using positive language in messaging was important, with emphasis on avoiding negative, patronising tone. Young Adults, Skill Game Gamblers, and Frequent Gamblers groups all expressed interest in seeing spending information and statistics within the messages sent to them; these three groups also expressed a preference for messages about their own play and expertise.

The groups were not all in agreement in preference for messaging content and promoted RG tools. Older Adults preferred messaging that promoted the Limit Setting tool, with several participants focusing on its usefulness for those on pension restrictions, while other groups expressed more negative opinions about the tool. Young Adults expressed more negative opinions than other groups about the message promoting the Player Assessment Quiz, but only the Frequent Gamblers indicated it was a tool they would consider using. Skill Game Gamblers were consistently interested in the odds of winning and their own outcomes over time.

Young Adults, Seniors, and Skill Game Gamblers all indicated that the Play Summary tool was one they would use if they received messages promoting it, and several participants indicated they already kept track of their own expenditures.

## Discussion

Educational and awareness based messaging is a tool that the gambling field has adopted from the wider public health field, with mixed success. Customizing RG messages and pairing RG tools based on age, gambling frequency, and type of gambling activities may enhance the effectiveness of messages and subsequent engagement with RG resources. Literature supports the use of messages that encourage gamblers to consider their own gambling, rather than providing explicit directions or information; a finding reinforced by participants in this study. When individuals generate arguments and conclusions themselves, they are more convinced than by statements provided from external sources.

In this study, meaningful differences were found between groups of players. Young Adults gravitated towards tips to help them be 'better' gamblers, which could be used to provide suggestions for losing less money (e.g., not chasing losses) as opposed to a self-assessment test of gambling behaviours, which was viewed more positively by Frequent Gamblers. In contrast, Older Adults looked for more light-hearted messages, focused on keeping gambling fun. Older Adults were also attracted to limit-setting features that were not as popular among other groups. Skilled-game gamblers preferred more direct communication, seeing themselves as able to incorporate information into their gambling, including about potential risks of gambling. Frequent gamblers were interested in resources to assist them in keeping track of their expenditure – such as activity statements in the Play Summary tool. Messages are more likely to be persuasive if they promote positive attitudes towards the desired behaviour, which is particularly effective if this is mutually exclusive (e.g., setting deposit limits vs. having no limits). Motivation can be enhanced by reducing the 'cost' of compliance, increasing the perceived ability to perform a specific action, using a positively-framed message, and appealing to the individual's sense of value. Making messages specific may increase their effectiveness in terms of user engagement. Gamblers may be more likely to engage with responsible gambling resources if they believe that these resources are typically used by their peers, and those that they respect. Messages that characterise problem gamblers as being irresponsible, reckless, or having other negative traits and behaviours may increase stigma towards problem gambling rather than encourage gamblers to engage with RG resources and help. Focus group participants consistently discussed the importance of messages not being patronising or judgemental.

RG campaigns may focus on using a variety of messages to cater to different target audiences, with repeated presentation of a message, but changing messages over time to avoid saturation and loss of effectiveness as novelty reduces. In addition to specific message wording, player cohorts in this study were found to identify different RG tools as useful. For example, Young Adults were more likely to prefer educational tips about irrational beliefs and how gambling outcomes are determined, while Older Adults, who may be on a fixed income, found value in messages that promoted setting expenditure limits. Skill Game Gamblers perceived themselves to be knowledgeable and wanted messages that outlined the odds of winning, but also indicated a benefit from activity statements to be mindful of their expenditure. Frequent Gamblers, meanwhile, showed a preference for gambling assessments. Consideration of the RG tools that gamblers are most likely to benefit from and be interested in will likely enhance relevance of RG messages and subsequent engagement with the play management resources.

This research builds on extant literature on the design of effective RG messages with a view to enhancing uptake of help resources in the form of play management tools. However, it is not without limitations. While focus groups are highly useful for the in-depth exploration of topics, attitudes, and concerns, the findings may not be generalizable due to the limited sample. Further, the types of messages focus group participants think will be persuasive may not be the same as messages that are truly persuasive (for example, a message with some sort of emotional hook could be effective, but participants may tend to downplay anything they see as not "rational"). This is related to the third-person bias, whereby participants think that messages are more likely to be effective for people other than themselves. The results are also limited in that they only considered four cohorts; it is likely that online gambling operators can segment their player databases in more sophisticated manners than using basic demographic information and play patterns. Further research should aim to analyse player databases of online gamblers to identify at-risk gamblers using more complex segmentation (such as combining number of activities, frequency of play, bet volatility, gambling activity and demographic details).

It is also important to be mindful that gambler preferences are not the only consideration in the design of public health strategies. Although gamblers may prefer one responsible gambling tool to another, that does not mean that this is the tool to which they would most likely benefit. For example, limit setting was not a popular tool amongst the Youth Gamblers, Skill Game Gamblers, and Frequent Gamblers, but when used, it does appear to be effective in assisting in controlling expenditure (Ladouceur, Blaszczynski, & Lalande, 2012). As such, one important role for RG messages and public health communication strategies are to effectively describe available resources to enhance update among relevant groups, even where there is not intrinsic interest in their use.

It is recommended that further research be conducted to evaluate the impact of the targeted messages for the specified cohorts of gamblers. This should include a field trial examining changes in actual gambling behaviour and use of RG tools before and after viewing customized messages. Furthermore, as technological updates and capacity is constantly changing, it may now be possible to identify more specific player cohorts based on information provided to and obtained by gambling operators. As such, consideration should be given to targeting other relevant player cohorts with an aim to developing more specialized and even individualized RG messages for gamblers.

# References

- Abarbanel, B., Bernhard, B., Singh, A. K., & Lucas, A. (2015). Impact of virtual atmospherics and functional qualities on the online gambler's experience. *Behaviour & Information Technology*, 34(10), 1005-1021.
- Afifi, T. O., LaPlante, D. A., Taillieu, T. L., Dowd, D., & Shaffer, H. J. (2014). Gambling involvement: considering frequency of play and the moderating effects of gender and age. *International Journal of Mental Health and Addiction*, 12(3), 283-294.
- Akl, E. A., Oxman, A. D., Herrin, J., Vist, G. E., Terrenato, I., Sperati, F., ... & Schünemann, H.
  (2011). Framing of health information messages. *The Cochrane Library*.
  DOI: 10.1002/14651858.CD006777.pub2
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (*DSM-5*®). American Psychiatric Pub.
- Argo, J. J., & Main, K. J. (2004). Meta-analyses of the effectiveness of warning labels. *Journal of public policy and marketing*, 23(2), 193-208.
- Arthur, D., & Quester, P. (2004). Who's afraid of that ad? Applying segmentation to the protection motivation model. *Psychology & Marketing*, *21*(9), 671-696.
- Auer, M., & Griffiths, M. D. (2013). Voluntary limit setting and player choice in most intense online gamblers: An empirical study of gambling behaviour. *Journal of Gambling Studies*, 29(4), 647-660.
- Barrault, S., & Varescon, I. (2013). Cognitive distortions, anxiety, and depression among regular and pathological gambling online poker players. *Cyberpsychology, Behavior, and Social Networking*, 16(3), 183-188.

- Benhsain, K., Taillefer, A., & Ladouceur, R. (2004). Awareness of independence of events and erroneous perceptions while gambling. *Addictive Behaviors*, *29*(2), 399-404.
- Bennett, G. G., & Glasgow, R. E. (2009). The delivery of public health interventions via the Internet: actualizing their potential. *Annual review of public health*, *30*, 273-292.
- Berg, B. L., & Lune, H. (2004). Qualitative Research Methods for the Social Sciences Pearson Boston.
- Bernhard, B.J., Lucas, A.F., & Dongsuk, J. (2006). *Responsible gaming device research report*.Las Vagas, NV: International Gaming Institute, University of Nevada.
- Biglan, A., McConnell, S., Severson, H. H., Bavry, J., & Ary, D. (1984). A situational analysis of adolescent smoking. *Journal of Behavioral Medicine*, 7(1), 109-114.
- Bjerg, O. (2010). Problem gambling in poker: Money, rationality and control in a skill-based social game. *International Gambling Studies*, *10*(3), 239-254.
- Blaszczynski, A., Ladouceur, R., & Shaffer, H. J. (2004). A science-based framework for responsible gambling: The Reno model. *Journal of Gambling studies*, 20(3), 301-317.
- Blaszczynski, A., & Nower, L. (2002). A pathways model of problem and pathological gambling. *Addiction*, *97*(5), 487-499.
- Blinn-Pike, L., Worthy, S. L., & Jonkman, J. N. (2010). Adolescent gambling: A review of an emerging field of research. *Journal of Adolescent Health*, 47(3), 223-236.
- Braverman, J., & Shaffer, H. J. (2010). How do gamblers start gambling: Identifying behavioural markers for high-risk internet gambling. *The European Journal of Public Health*, 22(2), 273-278.
- Bull, F. C., Kreuter, M. W., & Scharff, D. P. (1999). Effects of tailored, personalized and general health messages on physical activity. *Patient education and counseling*, 36(2), 181-192.

- Carbonneau, R., Vitaro, F., Brendgen, M., & Tremblay, R. E. (2015). Variety of gambling activities from adolescence to age 30 and association with gambling problems: a 15-year longitudinal study of a general population sample. *Addiction*, *110*(12), 1985-1993.
- Cohen, I, McCormick, A., & Davies, G. (2017). BCLC'S Voluntary Self-Exclusion Program from the Perspective and Experiences of Program Participants. Available from https://cjr.ufv.ca/wp-content/uploads/2017/10/VSE-2017.pdf
- Cox III, E. P., Wogalter, M. S., Stokes, S. L., & Tipton Murff, E. J. (1997). Do product warnings increase safe behavior? A meta-analysis. *Journal of Public Policy & Marketing*, 195-204.
- Creswell, J.W. (2003)..*Research design: Qualitative, quantitative and mized methods approaches.* 2nd ed. London, UK: SAGE Publications.
- Cunningham, J. A., Hodgins, D. C., & Toneatto, T. (2008). Problem gamblers' interest in selfhelp services.. *Psychiatric Services*, *59*(6), 695-696.
- Cunningham, J. A., Sdao-Jarvie, K., Koski-Jännes, A., & Breslin, F. C. (2001). Using self-help materials to motivate change at assessment for alcohol treatment. *Journal of substance abuse treatment*, *20*(4), 301-304.
- Currie, S. R., Hodgins, D. C., Wang, J., El-Guebaly, N., Wynne, H., & Chen, S. (2006). Risk of harm among gamblers in the general population as a function of level of participation in gambling activities. *Addiction*, 101(4), 570-580.
- Delfabbro, P. H., & Winefeld, A. H. (2000). Predictors of irrational thinking in regular slot machine gamblers. *The Journal of psychology*, *134*(2), 117-128.
- Dowling, N., Smith, D., & Thomas, T. (2005). Electronic gaming machines: are they the 'crackcocaine' of gambling?. *Addiction*, *100*(1), 33-45.

- Fischer, P. M., Krugman, D. M., Fletcher, J. E., Fox, R. J., & Rojas, T. H. (1993). An evaluation of health warnings in cigarette advertisements using standard market research methods: what does it mean to warn?. *Tobacco Control*, 2(4), 279.
- Fox, R. J., Krugman, D. M., Fletcher, J. E., & Fischer, P. M. (1998). Adolescents' attention to beer and cigarette print ads and associated product warnings. *Journal of advertising*, 27(3), 57-68.
- Focal Research. NS VL (2004). *Responsible Gaming Features Evaluation: Final report*. Nova Scotia, Focal Research Consultants Ltd.
- Fukunaga, R., Bogg, T., Finn, P. R., & Brown, J. W. (2013). Decisions during negatively-framed messages yield smaller risk-aversion-related brain activation in substance-dependent individuals. *Psychology of Addictive Behaviors*, 27(4), 1141.
- Gainsbury, S. (2011). Player account-based gambling: Potentials for behaviour-based research methodologies. *International Gambling Studies*, *11*(2), 153-171.
- Gainsbury S. (2012). Responsible gambling strategies. In S, Gainsbury. *Internet gambling: Current research findings and implications*. New York: Springer. Pp.103-12.
- Gainsbury, S. M., Aro, D., Ball, D., Tobar, C., & Russell, A. (2015). Optimal content for warning messages to enhance consumer decision making and reduce problem gambling. *Journal of Business Research*, 68(10), 2093-2101..
- Gainsbury, S., Hing, N., & Suhonen, N. (2014). Professional help-seeking for gambling problems: Awareness, barriers and motivators for treatment. *Journal of Gambling Studies*, 30(2), 503-519.

- Gainsbury, S., Parke, J., & Suhonen, N. (2013). Consumer attitudes towards Internet gambling:
   Perceptions of responsible gambling policies, consumer protection, and regulation of
   online gambling sites. *Computers in Human Behavior*, 29(1), 235-245.
- Gainsbury, S. M., Russell, A., Blaszczynski, A., & Hing, N. (2015). Greater involvement and diversity of Internet gambling as a risk factor for problem gambling. *The European Journal of Public Health*, 25(4), 723-728.
- Gainsbury, S. M., Suhonen, N., & Saastamoinen, J. (2014). Chasing losses in online poker and casino games: Characteristics and game play of Internet gamblers at risk of disordered gambling. *Psychiatry research*, 217(3), 220-225.
- Glock, S., Müller, B. C., & Krolak-Schwerdt, S. (2013). Implicit associations and compensatory health beliefs in smokers: Exploring their role for behaviour and their change through warning labels. *British journal of health psychology*, 18(4), 814-826.
- Griffiths, M. D., Wood, R. T., & Parke, J. (2009). Social responsibility tools in online gambling:
  A survey of attitudes and behavior among internet gamblers. *Cyberpsychology & Behavior*, 12(4), 413-421.
- Guillaumier, A., Bonevski, B., & Paul, C. (2014). Tobacco health warning messages on plain cigarette packs and in television campaigns: a qualitative study with Australian socioeconomically disadvantaged smokers. *Health education research*, 30(1), 57-66.
- Gupta, R., & Derevensky, J. L. (2000). Adolescents with gambling problems: From research to treatment. *Journal of Gambling studies*, *16*(2-3), 315-342.
- Hadden, S. G. (1991). Regulating product risks through consumer information. *Journal of Social Issues*, 47(1), 93-105.

- Hardoon, K., Derevensky, J. L., & Gupta, R. (2003). Empirical measures vs. perceived gambling severity among youth: why adolescent problem gamblers fail to seek treatment. *Addictive Behaviors*, 28(5), 933-946.
- Hing, N. (2004). An assessment of member awareness, perceived adequacy and perceived effectiveness of responsible gambling strategies in Sydney clubs [Internet]. New South Wales [cited 2004 May 16]. Available from <a href="http://www.dgr.nsw.gov.au">http://www.dgr.nsw.gov.au</a>.
- Hing, N, Nuske, E, & Gainsbury, S. (2012). Gamblers at-risk and their help-seeking behaviour.
  Report submitted to Gambling Research Australia, Centre for Gambling Education &
  Research, Southern Cross University.
- Hing, N., Nuske, E., Gainsbury, S. M., & Russell, A. M. (2016). Perceived stigma and selfstigma of problem gambling: perspectives of people with gambling problems. *International Gambling Studies*, 16(1), 31-48.
- Ho, R. (1998). The intention to give up smoking: Disease versus social dimensions. *The Journal* of social psychology, 138(3), 368-380.
- Hoch, S. J., & Deighton, J. (1989). Managing what consumers learn from experience. *The Journal of Marketing*, 1-20.
- Hodgins, D. C., Stea, J. N., & Grant, J. E. (2011). Gambling disorders. *The Lancet*, *378*(9806), 1874-1884.
- Hodgins, D. C., Schopflocher, D. P., Martin, C. R., El-Guebaly, N., Casey, D. M., Currie, S. R.,
  ... & Williams, R. J. (2012). Disordered gambling among higher-frequency gamblers:
  who is at risk?. *Psychological medicine*, 42(11), 2433-2444.

- Hodgins, D. C., Wynne, H., & Makarchuk, K. (1999). Pathways to recovery from gambling problems: Follow-up from a general population survey. *Journal of gambling studies*, 15(2), 93-104.
- Hopley, A. A., & Nicki, R. M. (2010). Predictive factors of excessive online poker playing. *Cyberpsychology, Behavior, and social networking*, *13*(4), 379-385.
- Kardes, F. R., Kim, J., & Lim, J. S. (1994). Moderating effects of prior knowledge on the perceived diagnosticity of beliefs derived from implicit versus explicit product claims. *Journal of Business Research*, 29(3), 219-224.
- Kim, H. S., Wohl, M. J., Salmon, M., & Santesso, D. (2017). When do gamblers help themselves? Self-discontinuity increases self-directed change over time. *Addictive behaviors*, 64, 148-153.
- Krawitz, A., Fukunaga, R., & Brown, J. W. (2010). Anterior insula activity predicts the influence of positively framed messages on decision making. *Cognitive, Affective, & Behavioral Neuroscience*, 10(3), 392-405.
- LaBrie, R. A., Kaplan, S. A., LaPlante, D. A., Nelson, S. E., & Shaffer, H. J. (2008). Inside the virtual casino: A prospective longitudinal study of actual Internet casino gambling. *European Journal of Public Health*, 18(4), 410-416.
- Ladouceur, R., Blaszczynski, A., & Lalande, D. R. (2012). Pre-commitment in gambling: a review of the empirical evidence. *International Gambling Studies*, *12*(2), 215-230.
- Langham, E., Rockloff, M., Browne, M., & Best, T. (2017). Could EGM player-tracking systems help link gamblers to treatment services in Australia: a thematic analysis of counsellor and community educators' perspectives. *International Gambling Studies*, *17*(3), 471-489.

- Leventhal, H. (1970). Findings and theory in the study of fear communications. *Advances in experimental social psychology*, *5*, 119-186.
- Leventhal, H., Glynn, K., & Fleming, R. (1987). Is the smoking decision an'informed choice'?: effect of smoking risk factors on smoking beliefs. *JAMA*, *257*(24), 3373-3376.
- Levin, I. P., Chapman, D. P., & Johnson, R. D. (1988). Confidence in judgments based on incomplete information: An investigation using both hypothetical and real gambles. *Journal of Behavioral Decision Making*, 1(1), 29-41.
- Lewis, R. A., & Reiley, D. H. (2014). Advertising effectively influences older users: How field experiments can improve measurement and targeting. *Review of Industrial Organization*, 44(2), 147-159.
- Marshall, C, & Rossman, GB. (2011). *Designing Qualitative Research*. 5th ed. Thousand Oaks, CA: SAGE Publications, Inc.
- Matulewicz, N. (2015). *How do players use a responsible gambling tool?* SNSUS Conference. Stockholm, June 2015.
- Mazanov, J., & Byrne, D. (2007). Changes in adolescent smoking behaviour and knowledge of health consequences of smoking. *Australian Journal of Psychology*, *59*(3), 176-180.
- Monaghan, S. (2008). Review of pop-up messages on electronic gaming machines as a proposed responsible gambling strategy. *International Journal of Mental Health and Addiction*, 6(2), 214-222.
- Monaghan, S., & Blaszczynski, A. (2007). Recall of electronic gaming machine signs: A static versus a dynamic mode of presentation. *Journal of Gambling Issues*, (20), 253-267.

- Monaghan, S., & Blaszczynski, A. (2010a). Impact of mode of display and message content of responsible gambling signs for electronic gaming machines on regular gamblers. *Journal* of Gambling Studies, 26(1), 67-88.
- Monaghan, S., & Blaszczynski, A. (2009). Electronic gaming machine warning messages: Information versus self-evaluation. *The Journal of Psychology*, *144*(1), 83-96.
- Monaghan, S., Blaszczynski, A., & Nower, L. (2009). Do warning signs on electronic gaming machines influence irrational cognitions?. *Psychological reports*, *105*(1), 173-187.
- Mussweiler, T., & Neumann, R. (2000). Sources of mental contamination: Comparing the effects of self-generated versus externally provided primes. *Journal of Experimental Social Psychology*, 36(2), 194-206.
- Nelson, S. E., LaPlante, D. A., Peller, A. J., Schumann, A., LaBrie, R. A., & Shaffer, H. J.
  (2008). Real limits in the virtual world: Self-limiting behavior of Internet
  gamblers. *Journal of gambling Studies*, 24(4), 463-477.
- Omnifacts Bristol Research. (2007). Nova Scotia player card research project: Stage III research report. Available from

http://nsgc.ca/research/responsible\_gaming\_device\_research\_project/

- Philippe, F., & Vallerand, R. J. (2007). Prevalence rates of gambling problems in Montreal,Canada: A look at old adults and the role of passion. *Journal of Gambling Studies*, 23(3), 275-283.
- Presti, D. E., Ary, D. V., & Lichtenstein, E. (1992). The context of smoking initiation and maintenance: findings from interviews with youths. *Journal of substance abuse*, 4(1), 35-45.

- Rogers WA, Lamson N, Rousseau GK. Warning research: An integrative perspective. Human Factors. 2000 Mar;42(1):102-39.
- Rothman, A. J., Kelly, K. M., Hertel, A. W., & Salovey, P. (2003). Message frames and illness representations: Implications for interventions to promote and sustain healthy behavior.
- Rothman, A. J., & Salovey, P. (1997). Shaping perceptions to motivate healthy behavior: the role of message framing. *Psychological bulletin*, *121*(1), 3.
- Rothman, A. J., Stark, E., & Salovey, P. (2006). Using message framing to promote healthy behavior: A guide to best practices. In J. Trafton, & W. Gorden (Eds.), *Best practices in the behavioral management of chronic diseases*. Los Altos, CA: Institute for Disease Management. Pp:31–48.
- Saldaña, J. (2016). The coding manual for qualitative researchers. Thousand Oaks, CA: SAGE Publications Ltd.
- Schoenbachler, D. D., & Whittler, T. E. (1996). Adolescent processing of social and physical threat communications. *Journal of Advertising*, 25(4), 37-54.
- Sharpe, L. (2002). A reformulated cognitive–behavioral model of problem gambling: A biopsychosocial perspective. *Clinical psychology review*, 22(1), 1-25.
- Slutske, W. S. (2006). Natural recovery and treatment-seeking in pathological gambling: Results of two US national surveys. *American Journal of Psychiatry*, *163*(2), 297-302.
- Steenbergh, T. A., Whelan, J. P., Meyers, A. W., May, R. K., & Floyd, K. (2004). Impact of warning and brief intervention messages on knowledge of gambling risk, irrational beliefs and behaviour. *International Gambling Studies*, 4(1), 3-16.
- Grant Stitt, B., Giacopassi, D., & Nichols, M. (2003). Gambling among older adults: A comparative analysis. *Experimental Aging Research*, *29*(2), 189-203.

- Strahan, E. J., White, K., Fong, G. T., Fabrigar, L. R., Zanna, M. P., & Cameron, R. (2002). Enhancing the effectiveness of tobacco package warning labels: a social psychological perspective. *Tobacco Control*, 11(3), 183-190.
- Strecher, V. (2007). Internet methods for delivering behavioral and health-related interventions (eHealth). *Annual. Review of Clinical Psychology*, *3*, 53-76.
- Suurvali, H., Cordingley, J., Hodgins, D. C., & Cunningham, J. (2009). Barriers to seeking help for gambling problems: A review of the empirical literature. *Journal of Gambling Studies*, 25(3), 407-424.
- Tira, C., Jackson, A. C., & Tomnay, J. E. (2013). Pathways to late-life problematic gambling in seniors: a grounded theory approach. *The Gerontologist*, 54(6), 1035-1048.
- Tirachaimongkol, L. C., Jackson, A. C., & Tomnay, J. E. (2010). Pathways to problem gambling in seniors. *Journal of Gerontological Social Work*, *53*(6), 531-546.
- Toneatto, T., Cunningham, J., Hodgins, D., Adams, M., Turner, N., & Koski-Jannes, A. (2008).
   Recovery from problem gambling without formal treatment. *Addiction Research & Theory*, *16*(2), 111-120.
- Vallone, D. M., Duke, J. C., Mowery, P. D., McCausland, K. L., Xiao, H., Costantino, J. C., ... & Allen, J. A. (2010). The impact of EX®: Results from a pilot smoking-cessation media campaign. *American journal of preventive medicine*, 38(3), S312-S318.
- Vallone, D. M., Niederdeppe, J., Richardson, A. K., Patwardhan, P., Niaura, R., & Cullen, J.
  (2011). A national mass media smoking cessation campaign: effects by race/ethnicity and education. *American Journal of Health Promotion*, 25(5\_suppl), S38-S50.

- Volberg, R. A., Gupta, R., Griffiths, M. D., Ólason, D. T., & Delfabbro, P. (2010). An international perspective on youth gambling prevalence studies. *International journal of adolescent medicine and health*, 22(1), 3-38.
- Williams, R. J., & Connolly, D. (2006). Does learning about the mathematics of gambling change gambling behavior?. *Psychology of Addictive Behaviors*, *20*(1), 62.
- Wogalter, M. S. (2006). Purposes and scope of warnings. In M. Wolgater (Ed.) Handbook of Warnings. Philadelphia: Lawrence Erlbaum Associates. Pp3–10.
- Wogalter, M. S., & Dingus, T. A. (1999). Methodological techniques for evaluating behavioral intentions and compliance. *Warnings and risk communication*, 53-81.
- Wood, R. T., & Griffiths, M. D. (2008). Why Swedish people play online poker and factors that can increase or decrease trust in poker websites: A qualitative investigation. *Journal of Gambling Issues*, (21), 80-97.
- Wood, R., & Williams, R. (2009). *Internet gambling: Prevalence, patterns, problems and policy options*. Report prepared for the Ontario Problem Gambling Research Centre: Guelph, ON.
- Wright, P. (1979). Concrete action plans in TV messages to increase reading of drug warnings. *Journal of Consumer Research*, 6(3), 256-269.
- Yank, V., Tribett, E., Green, L., & Pettis, J. (2015). Learning from marketing: Rapid development of medication messages that engage patients. *Patient education and counseling*, 98(8), 1025-1034.