

Young Poker Faces

Compliance with the Legal Age Limit on Multiple Gambling Products in the Netherlands

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Abstract Gambling is an activity that can be performed on-premise (slot machines in casinos, bars and restaurants) or off-premise (scratch cards and lottery tickets). Although the addictive potential may depend on the specific gambling product, early onset increases the likelihood for future pathological gambling. To delay the onset of gambling behavior and to reduce gambling-related problems, many countries have introduced age limits that should decrease the availability of gambling products to underage individuals. In this study we evaluated compliance to the legal age limit, making use of a mystery shopping method. We distinguished between (1) off-premise scratch cards (n = 51); (2) off-premise lottery tickets (n = 49); (3) on-premise slot machines in casinos (n = 88); and (4) on-premise slot machines in the catering industry (n = 100), and we focus on the factors, such as characteristics of the establishment, buyer, and vendor, that may account for possible differences. The 288 visits demonstrate that gambling products are highly available and accessible to under-aged customers; young customers are still able to gamble despite the legal regulations. The compliance rates fluctuate and appear to be related to the specific gambling product in question. Furthermore, age verification activities and certain outlet- and buyer characteristics, as well as characteristics associated with the purchase attempt, may influence compliance.

Keywords Gambling · Adolescents · Legal age limit · Compliance · Mystery shopping

Introduction

The gambling industry is one of the fastest growing industries in the world (Monaghan et al. 2008). Practiced as a leisure activity by many individuals, gambling can become an addictive activity that may compel gamblers to continue playing even when they cannot afford to do so. Obsessive or irresponsible gambling may cause severe problems such as

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increased mood and personality disorders, suicide ideation and attempts, domestic violence, alcohol and drug abuse, health problems and (juvenile) crime, such as truancy, drug selling, shoplifting and stealing money (Magoon et al. 2005). Furthermore, gambling often precedes other risky behaviors, thus possibly serving as a gateway behavior (Felsher et al. 2004; Magoon et al. 2005).

Gambling can be executed on-premise and off-premise. Examples of off-premise gambling products include scratch cards and lottery tickets (instant lotteries), and online gambling, while on-premise gambling outlets such as casinos, bars and restaurants offer slot machines for gambling. Due to the different characteristics of these gambling products, the risks may vary depending on the gambling product and the addictive potential is dependent on characteristics, such as short-payout intervals (a short period between placing the bet and the outcome), a low threshold (accessibility and costs), and the *near miss* probability (failures that are close to being successful). Slot machines are considered to be very addictive (Breen and Zimmerman 2005), with a large majority of pathological gamblers engaging in slot machine play (Breen 2000; Jackson et al. 2000; Chóliz 2010). The addictive potential of scratch cards seems to be (much) lower (DeFuentes-Merillas et al. 2003) than that of slot machines, although many of the product characteristics associated with problem gambling are also associated with scratch cards (short-payout interval, low threshold (both in terms of accessibility and costs), and near miss-probability). In lottery gambling, the payout interval is much longer, which may lower the addictive potential (Griffiths 1999).

Although the addictive potential may differ at an individual level, in general, for those who begin gambling at an early age, the likelihood for future pathological gambling and participation in other problem behaviors increases (Magoon et al. 2005). Research suggests that problem gamblers typically develop these behaviors during adolescence (Monaghan et al. 2008) and that early gambling experience is a predictor of gambling problems later in life (Shead et al. 2010; Vitaro et al. 2004; Winters et al. 2005). Thus, while all gambling products are potentially harmful and early onset is a strong predictor of problematic use, these risks are especially heightened for adolescents.

In the literature, gambling motivations have been explained by cognitive theories (gamblers are driven by faulty or flawed reasoning that compels them to continue to gamble), economic theories (maximum profit against minimal costs), and social theories (gambling as a social activity) (Lam 2007). Furthermore, with respect to underage gambling, a wide range of factors may influence the onset and escalation of adolescent gambling, such as gender, educational level, personality characteristics, and level of social acceptance (Abott 2001; Azmier 2000; Gupta and Derevensky 1997; Monaghan and Derevensky 2008). Another prominent factor influencing (the onset of) gambling is the (perceived) availability of gambling products (e.g., Meyer and Hayer 2010). In the fields of other risky products, such as tobacco and alcohol, availability is viewed as an important predictor of adolescent consumption of these products (Ólafsdóttir 1997; Paschall et al. 2009; Popova et al. 2009; Schechter 1986; Wald et al. 1986). Thus, it can be concluded that when gambling products are more available, there is an increased possibility that the number of gamblers will increase. (Meyer et al. 2009). Availability of gambling products can be divided into cognitive, social, economic, and physical availability (Hing and Haw 2009). Cognitive availability concerns the (relative) ease of the game itself, while social accessibility is determined by the attractiveness of the location, that is, whether the gambler feels comfortable at the location and with its atmosphere. Financial availability is determined by the amount of money that is available to gamble and the cost of the gambling product. Finally, physical availability is the ease with which one can gain access

to gambling products, including the number of outlets offering gambling products, the hours of operation, the payout wait time, the location, and the Internet (Griffiths and Wood 2000; Hing and Haw 2009).

To delay the onset of gambling behavior and to reduce gambling-related problems, many countries throughout the world have introduced rules to decrease the availability of gambling products. One way to decrease the physical availability of such products is to set age limits. Age limits are designed to prevent young people's access and exposure to risky products and to delay the age at which young people may begin consumption of such products. Based on the widespread implementation of age limits (which are used worldwide and for a variety of risky products), it is reasonable to infer that age limits are highly effective in reducing the availability of gambling products to minors (Gosselt 2011). However, age limits are influenced by many factors that can potentially diminish their effectiveness. Although governments and (mental) healthcare organizations are concerned about the risks associated with the consumption of gambling products, industries are driven by profit, and customers often prefer easy access and affordable prices. Furthermore, in many countries, governments claim a share of the gambling profits. Ultimately, the effectiveness of age limits depends on both the relevant legislation and the extent to which vendors comply with the legal age limits (Gosselt 2011).

The Dutch Legislation on Gambling Products

In 1964, the Gambling Law was introduced in the Netherlands. This law serves three main purposes: to provide gambling and gamblers a legal position, to protect customers, and to prevent gambling addictions. Although the law distinguishes between several forms of off-premise gambling (lotteries, scratch cards, pull-tabs), on-premise gambling (casino gambling, slot machines, racetracks, sports betting, card games), and Internet gambling, the same legal age limit—18 years of age—applies to all forms of gambling. In other words, users are only allowed to participate in a gambling activity upon reaching the legal age limit of 18, and those who are underage and engage in gambling activities may be fined. Furthermore, suppliers of gambling products are prohibited from selling their products to customers who are under 18 years of age; accordingly, they are required to appropriately verify the age of the customer (e.g., with an identification document). The age limit should also be communicated via signage at the entrance of (private and state-owned) casinos. Finally, the law contains complex legislation on the approval of various types of slot machines within certain types of outlets. The main rationale is that the most addictive machines are only allowed in casinos, the moderately addictive machines are allowed in both privately owned casinos (age limit posted at entrance: 18 years) and privately owned bars and restaurants with limited access, and less addictive gaming machines are more widely allowed.

Vendor Compliance

In alcohol and tobacco, mystery shopping studies conducted worldwide indicate that vendor compliance with age limits is problematic (e.g., Britt et al. 2006; Freisthler et al. 2003; Preusser and Williams 1992; Preusser et al. 1994; Wagenaar et al. 2005; Wolfson et al. 1996; Willner et al. 2000) and that context factors may influence compliance with age limits, such as the characteristics of the general establishment (e.g., type of license, location of the establishment), the interior of the premises (e.g., crowdedness, signs in the store), the vendor characteristics (e.g., gender, age), the buyer characteristics (e.g., gender, educational level), and the characteristics associated with the purchase attempt itself (e.g.,

time of visit). Using this mystery shopping approach, Radecki (1994) was the first researcher to address the actual level of compliance with the legal age limit on gambling product sales and participation. In his study on the enforcement of the age limit as it pertains to the purchase of tobacco products and lottery tickets, Radecki sent under-aged buyers into establishments with the intent to purchase cigarettes and lottery tickets. The compliance rate was found to be low (2 %). Buying scratch cards combined with alcohol, a recent Canadian mystery shopping study examined factors influencing vendor compliance to understand how underage youth acquire lottery products (St-Pierre et al. 2011). The off-premise compliance rate (60 %) was dependent on the gender of the buyer and the outlet type as compliance was higher in the case of male buyers and in chain and franchise stores compared to independently owned stores, and female vendors were more likely to ask for identification compared to male vendors. The vendors did not seem to discriminate between a gambling product (scratch card) and an alcoholic beverage (a beer).

Both compliance studies (Radecki 1994; St-Pierre et al. 2011) examined compliance by conducting combined purchase attempts (tobacco and lottery tickets; alcohol and scratch cards), and only off-premise outlets were visited. Combined purchase attempts may have a direct influence on compliance with age limits with respect to gambling products: once the sale of cigarettes or beer is (dis)approved, this result may influence the sale of lottery tickets, and vice versa (St-Pierre et al. 2011). Regarding visits to off-premise outlets only, it is reasonable to infer that compliance levels may differ in on-premise contexts. While the interaction between vendor and gambler is short in an off-premise context, in on-premise outlets (e.g., casinos and restaurants), there is more time for the vendor to observe the gambler and his/her behavior. This longer interaction period may reduce the possibility of selective attention, while increasing the chance of the vendor being caught and fined for non-compliance. The perceived chance of being caught is known to be a predictor of compliance (Gosselt et al. 2012). Furthermore, because off-premise outlets are not solely dependent on gambling product sales (e.g., they also sell tobacco, magazines, newspapers, candy), a low level of salience of the issue of underage sales may be related to lower compliance levels (Wolfson et al. 1996). In sum, these outlet-specific characteristics may lead to higher compliance levels in on-premise outlets, thus leading to the following hypothesis:

H1 Compliance with the legal age limits on gambling products will be higher in on-premise outlets than in off-premise outlets.

In addition to existing compliance literature, the current compliance study has three objectives. First, by buying gambling products only, we will address the general level of compliance with the legal age limits of gambling products within the Dutch context. Second, by incorporating both off-premise and on-premise gambling products for the first time, this study will examine the differences in compliance between these gambling products and focus on the factors that may account for possible differences in compliance. Third, in line with the study of St-Pierre et al. (2011), the effects of establishment characteristics (exterior and interior), buyer characteristics, and vendor characteristics on compliance will be investigated.

Method

To understand which factors contribute to the level of compliance with age limits in the domain of gambling products, a mystery shopping approach was used. Predominantly used in a service context, mystery shopping has proven to be a valid approach to establish

compliance with age limits (Gosselt et al. 2007; Gosselt et al. 2011; Radecki 1994; St-Pierre et al. 2011). An outlet offering gambling products is then visited by a trained underage adolescent, who assumes the role of a normal customer, but acts according to a script. Immediately after the visit, a detailed data checklist is completed about the mystery shopper's experience.

Research Design

During a 6 week period, 288 purchase attempts were conducted and divided into four types of gambling products: (1) off-premise scratch cards ($n = 51$); (2) off-premise lottery tickets ($n = 49$); (3) on-premise slot machines in casinos ($n = 88$); and (4) on-premise slot machines in the catering industry ($n = 100$). All purchase attempts for lottery tickets, scratch cards and slot machines in fast food restaurants and bars ($n = 200$) were conducted in a medium-sized city in the Netherlands (about 150,000 inhabitants). Because of the low density of casinos within this particular city, the 88 attempts regarding slot machines in casinos were executed in a larger region that represented one-twelfth of the population of the entire country.

All purchase attempts were conducted by ten different underage 17-year-old mystery shoppers (five girls and five boys), who were recruited by their high school teachers on the basis of their appearance (i.e., looks like an 'average' 17 year-old). All mystery shoppers fit within the 95 % CI levels on height and weight of the Dutch average (TNO 2010). The mystery shoppers underwent training sessions in which (1) the mystery shoppers were informed about the possible negative consequences of (early) gambling behavior and (2) the research protocol was practiced, i.e., extensive instructions and discussions regarding the script they should follow and the variables of interest. To ensure valid documentation of all of the measures, the underage mystery shoppers were trained, for example, to estimate crowdedness within an outlet and to estimate the age of a vendor). All visits were conducted following a protocol that was approved by the ethical commission of the faculty of Behavioral Sciences of the University of Twente and which is largely based on the Dutch standard (dealing with all relevant legal and ethical issues) for alcohol mystery shopping (Gosselt et al. 2007). Table 1 provides an overview of the research design.

Measures

After each visit, (1) main outcome variables (compliance vs. non-compliance, entrance allowed, age verification activities), (2) outlet characteristics (type of outlet, size, crowdedness, presence of age limit signs, store/bar exterior and interior), (3) vendor characteristics (gender, estimated age), buyer characteristics (gender), and (4) characteristics associated with the purchase attempt itself (day of visit, timeframe) were observed and registered on the data checklist.

Sampling and Protocol

Off-Premise: Scratch Cards ($n = 51$) and Lottery Tickets ($n = 49$)

All outlets within the region that sold lottery tickets and/or scratch cards (e.g., tobacco stores, supermarkets, gas stations and kiosks) were inventoried, resulting in 53 outlets of which 50 stores were visited twice, on different days, once by a girl, once by a boy. During all of these visits, the mystery shopper tried to buy either a lottery ticket or a scratch card.

Table 1 Research design: number of visits by gender and outlet type

	Female	Male	Mixed	Total
Off-premise				
Lottery tickets	24	25		49
Scratch cards	26	25		51
On-premise				
Catering slots	50	50		100
Casino slots	22	22	44 ^a	88
Total	144	144		288

^a Casinos were visited by two mystery shoppers (to make the visit more realistic); 44 times, the team consisted of one underage boy and one underage girl; 22 times, an underage girl was combined with an adult researcher; and 22 times, the underage boy was accompanied by an adult researcher

In the 'off-premise-protocol,' one mystery shopper entered the outlet and walked directly to the pay desk and asked for either a lottery ticket (3 euros, approximately 4 USD) or a scratch card (3 euros). When asked about age, the mystery shopper was instructed to lie and say that s/he is 18-years-old. When asked for identification, the mystery shopper was instructed to show his/her own (real) identification document that indicated the mystery shopper is underage. If the store personnel refused to sell the gambling product, the mystery shopper would not further insist and would leave the store. If the store personnel were willing to sell the gambling product, the mystery shopper would pay for the product and then leave the store.

On-Premise: Slot Machines in Casinos (n = 88) and the Catering Industry (n = 100)

Within the region, 13 casinos were available. After having analyzed their websites, 11 appeared to be suitable for mystery visits (2 casinos have a 21-year-old age limit). All 11 casinos (one state casino and ten privately owned casinos) were visited eight times: four times by two adolescents (boy and girl) and four times by an adolescent accompanied by an adult.

In the 'on-premise-protocol' for casinos, the mystery shoppers attempted to enter the outlet. When the mystery shopper was asked his/her age as part of gaining entrance, the mystery shoppers were instructed again to lie about their age but to show his/her valid identification, if requested. Once gaining entrance, the mystery shopper walked directly to the pay desk/bar and asked casino personnel to exchange money (from bill to coin) to gamble on a slot machine (which the mystery shopper would explicitly ask to do). If asked, the mystery shopper would again lie about age but show his/her real identification. If the casino personnel refused the gambling request, the mystery shopper would not further insist and would leave the outlet. If the casino personnel were willing to exchange the money, the mystery shopper did not actually play the machine (for ethical reasons and because under Dutch law, illegal gambling results in punishment for both the owner and the underage gambler). The exchange of money was considered to be evidence of non-compliance. If the vendor agreed with the exchange of the money, the mystery shopper walked to a gambling machine, pretended to get ready to play but was disrupted by an urgent phone call and would leave the casino.

Regarding the slot machines in the catering industry (bars and restaurants), within the region, there were 164 bars and restaurants, of which (after visiting all of them) 29 hosted one or more gambling machine(s). Based on routing, 25 of these outlets were then visited four times, on four different days, by four different (50 % male) mystery shoppers (on two

occasions during the study, an outlet was closed, and one of the four ‘spare’ outlets was used instead). The ‘on-premise-protocol’ for the catering industry was consistent with the other protocols. Here, the mystery shoppers entered the outlets alone (no restrictions on entrance are active), walked to the counter and asked to change a bill for coins, explicitly mentioning that the reason for the exchange was to play the slot machines. Again, the approval of the exchange of money was considered to be non-compliance.

Results

Compliance Behavior of Vendors

Of the total gambling attempts ($N = 288$), 262 were approved, representing an overall compliance with the legal age limit of 9 %. Compliance ranged from 0 % on lottery tickets, 0 % on scratch cards, 6 % on slot machines in restaurants and bars, and 23 % on slot machines in casinos (the percentages for the casinos represent the *entrance* of the casino; once inside, the minors were always able to play the slot machine). In all, these statistics translate to a significantly lower compliance rate in the off-premise outlets (0 %) compared to the on-premise outlets (14 %) [$\chi^2(1, N = 288) = 15.20, p = .000$]. The differences in the compliance rates between the different types of gambling products were also significant [$\chi^2(3, N = 288) = 31.15, p = .000$]. Compliance with regard to playing slot machines in restaurants and bars differed marginally from compliance regarding the purchase of lottery tickets [$\chi^2(1, N = 149) = 3.06, p = .087$] and scratch cards [$\chi^2(1, N = 151) = 3.19, p = .080$], and compliance with regard to playing slot machines in casinos was significantly higher compared to compliance regarding the purchase of lottery tickets [$\chi^2(1, N = 137) = 13.04, p = .000$], scratch cards [$\chi^2(1, N = 139) = 13.54, p = .000$], and playing slot machines in restaurants and bars [$\chi^2(1, N = 188) = 10.99, p = .001$].

Because compliance is related to multiple vendor behaviors (denial of entrance, age verification activities and refusal of sale), we analyzed the extent to which the mystery shoppers were asked about their age and were required to show a valid identification document and how these vendor interventions affected the purchaser’s entrance likelihood (for on-premise outlets) and their buying success (Table 2). As shown in Table 2, (a combination of multiple) age verification activities do(es) not necessarily lead to compliance.

There was no significant difference with regard to asking for age *only* (without being asked for identification) between on- and off-premise outlets [$\chi^2(1, N = 288) = .17, p = .568$]. In the off-premise outlets, the underage purchasers were asked about age only 1 time while purchasing lottery tickets and not at all while purchasing scratch cards, but compliance was never enforced. At the on-premise locations, personnel asked about age 1 time in a casino and 2 times in a bar. Again, compliance was never enforced (see Table 3).

The mystery shoppers were asked for their identification *only* significantly more often at on-premise outlets compared to off-premise outlets [$\chi^2(1, N = 288) = 4.17, p = .030$]. When wanting to buy scratch cards, the mystery shopper was required to produce *only* identification 3 times, but was nonetheless sold the product. However, buying lottery tickets was possible without any identification verification activities. Regarding the on-premise visits, the underage buyer was asked *only* to show his/her identification 18 times–15 times in casinos and 3 times in catering establishments—resulting in 14 cases of compliance (13 times at the casinos and 1 time in a catering outlet). On 4 occasions, after

Table 2 Age verification, entrance denial and compliance per gambling product type

	Visits #	Asking age # (%)	Requiring ID # (%)	Requiring age and ID # (%)	No entrance # (%)	Compliance # (%)
Off-premise	100	1 (1)	3 (3)	2 (2)	n.a.	0 (0)
Lottery tickets	49	1 (2)	0 (0)	0 (0)	n.a.	0 (0)
Scratch cards	51	0 (0)	3 (6)	2 (4)	n.a.	0 (0)
On-premise	188	3 (2)	18 (10)	14 (7)	20 (11)	26 (14)
Catering slots	100	2 (2)	3 (3)	6 (6)	0 (0)	6 (6)
Casino slots	88	1 (1)	15 (17)	8 (9)	20 (23)	20 (23)
Total	288	4 (1)	21 (7)	16 (6)	20 (7)	26 (9)

Table 3 Effect of age verification activities on the level of compliance

	Compliance # (%)	Non-compliance # (%)	Total #
Asking age	0 (0)	4 (100)	4
Requiring ID ^a	14 (67)	7 (33)	21
Requiring age and ID ^b	12 (75)	4 (25)	16
No intervention	0 (0)	247 (100)	247
Total	26 (9)	262 (91)	288

^a The compliance level was significantly higher when the mystery shopper was asked for ID compared to age questioning only [$\chi^2(1, N = 25) = 6.06, p = .026$]

^b The compliance level was significantly higher when the mystery shopper was asked for both age and ID compared to age questioning only [$\chi^2(1, N = 20) = 7.50, p = .014$]

showing identification, the gambling was nevertheless allowed. In sum, when the mystery shopper was asked for *only* his/her identification (without being asked for his/her age), the compliance level was 67 % and was significantly higher at on-premise outlets (78 %) compared to off-premise outlets (0 %) [$\chi^2(1, N = 21) = 7.00, p = .026$].

The mystery shoppers were asked for *both* age and identification 16 times. At the on-premise gambling locations, the mystery shoppers were asked for *both* age and identification significantly more often (14 times) than they were at the off-premise outlets (2 times) [$\chi^2(1, N = 288) = 3.69, p = .04$]. In the two cases (both when buying scratch cards) during the off-premise gambling attempts in which the mystery shopper was asked for *both* age and identification, compliance was not followed. At the on-premise locations, the shoppers were asked for both age and identification 8 times at casinos and 6 times at catering industry outlets, resulting in 7 and 5 cases of compliance, respectively. In sum, when *both* age and identification were required, the compliance rate was 75 %. Furthermore, the compliance rate was significantly higher at on-premise locations (86 %) compared to off-premise locations (0 %) [$\chi^2(1, N = 16) = 6.86, p = .050$].

Factors Associated with Vendor Compliance

To identify potential predictors for compliance, all literature-based relevant vendor and outlet characteristics were observed and registered by the mystery shoppers. Because the off-premise gambling product compliance is 0 %, clearly none of the observed

characteristics related to compliance. However, it is worth noting that age limit signage was observed only three times in off-premise outlets. The influence of characteristics related to the outlet, vendor, buyer and purchase attempt will be explored only for the on-premise visits.

Outlet Characteristics

In seven out of eleven casinos, during all eight mystery shopping visits, signs communicating the age limit were observed. In three casinos, out of the eight visits, age signs were observed four, five and seven times, while in one casino, no age signs were observed. However, the presence of age signs did not relate to compliance (age verification [$\chi^2(1, N = 88) = .34, p = .484$], identification verification [$\chi^2(1, N = 88) = .27, p = .409$], entrance [$\chi^2(1, N = 88) = .06, p = .520$], or refusal to gamble [$\chi^2(1, N = 88) = .06, p = .520$]). In the catering industry, age signs indicating the 18-year-old age limit were observed on 21 occasions. Again, however, the presence of age signs did not relate to refusal [$\chi^2(1, N = 100) = 1.68, p = .233$], age verification [$\chi^2(1, N = 100) = .38, p = .467$], or identification verification [$\chi^2(1, N = 100) = .01, p = .604$].

In casinos, a marginal influence of another outlet characteristic was found, that is, between crowdedness and compliance. The more people there are in the casino, the less likely the casino is to comply with the age limit restrictions. Each of the 15 instances in which the location was judged to be 'crowded' resulted in 15 cases of non-compliance [$\chi^2(4, N = 77) = 9.41, p = .052$]. Regarding the level of crowdedness in the catering industry, in total, 43 other customers using the slot machines were present during our visits, of whom the majority were male ($N = 40$), and their estimated ages varied from 18 to 70, of whom approximately half (22) were estimated to be 30 years of age or younger. Here, crowdedness did not relate to compliance [$\chi^2(4, N = 100) = 4.24, p = .375$]. Out of the 100 visits in the catering industry, the slot machine was within view of the vendor's workspace 61 times. Compliance, however, was not related to the location of the slots [$\chi^2(1, N = 99) = .36, p = .42$].

Vendor Characteristics

In casinos, the vendor variables recorded did not relate to compliance (estimated age (ranging from 20 to 69 years) of the vendor [$\chi^2(5, N = 88) = 5.48, p = .36$]; gender of the vendor [$\chi^2(1, N = 88) = 1.77, p = .151$]). Similarly, within the catering industry, vendor characteristics (gender [$\chi^2(1, N = 100) = .09, p = .566$] and estimated age (ranging from 15 to 65 years) [$\chi^2(5, N = 100) = 5.75, p = .332$]) did not significantly relate to compliance.

Buyer Characteristics

At the casinos, there was no correlation found between buyer characteristics of the mystery shoppers and compliance. There was also no significant difference in the compliance levels between the mystery visits with an adult and a minor and the visits conducted by two minors [$\chi^2(1, N = 88) = 2.95, p = .40$], nor was there a significant correlation between the gender (male ($N = 22$), female ($N = 22$) or mixed couple status ($N = 44$)) of the minor mystery shopper(s) and the compliance level [$\chi^2(2, N = 88) = 3.88, p = .824$]. However, within the catering industry, the gender of the mystery shopper did relate to the

compliance level (age verification [$\chi^2(1, N = 100) = 8.70, p = .003$], ID verification (only marginally) [$\chi^2(1, N = 100) = 3.05, p = .080$], and compliance [$\chi^2(1, N = 100) = 6.38, p = .013$]. Female mystery shoppers were never asked for their age, while their male counterparts were asked about their age 8 times (16 %). Furthermore, girls were allowed to gamble in all cases, while boys were refused gambling privileges in 6 cases (12 %).

Characteristics Associated with the Purchase Attempt

In casinos, compliance was not significantly related to the day of the visit (Wed/Thu/Fri/Sat) [$\chi^2(3, N = 88) = .43, p = .934$] or to the time of day (ranging from 12 to 4 pm or from 4 to 8 pm) on which the visits were conducted [$\chi^2(1, N = 88) = .14, p = .457$]. In the catering industry, the day of the visit (Tue/Wed/Thu/Fri/Sun) did relate to compliance [$\chi^2(4, N = 100) = 12.06, p = .017$]. While the highest compliance level was achieved on Thursday, the timeframe of the visit (from 12 to 4 pm, 4 to 8 pm, or 8 to 12 am) was not related to compliance [$\chi^2(2, N = 100) = .56, p = .756$].

Discussion

Because availability is an important predictor of adolescent use of risky products, such as gambling products, societies seek ways to control and reduce such availability. A strict, and, in theory, strong instrument is the use of legal age limits, which (should) create a barrier between the potential user and the use of the risky product in question. While gambling can be executed on-premise (slot machines in casinos and bars and restaurants) and off-premise (scratch cards and lottery tickets), possible differences in compliance between outlet types have not previously been tested. In addition to addressing possible differences in compliance levels between gambling products and outlet types, the current compliance study also addressed a general level of compliance with the legal age limits of gambling products in the Netherlands and considered the effects of establishment characteristics (exterior and interior), buyer characteristics, and vendor characteristics on (non-)compliance.

After conducting 288 mystery shopper purchase and gambling attempts, we find that gambling products are highly available for underaged customers. In many cases, young customers are not only able to purchase off-premise gambling products, but they are even able to gamble on slot machines in casinos and other catering locations, despite the legal regulations on age limits. Consistent with our hypothesis, the compliance rates are related to the specific product and outlet in question. Both on-premise products, such as lottery tickets and scratch cards, were freely available, while playing slot machines in restaurants and bars, and especially playing slot machines in casinos, was somewhat more challenging.

Because compliance is related to multiple vendor behaviors (denial of entrance, age verification activities—such as asking for age and identification—and refusal), we also analyzed the extent to which young customers were asked about their age and/or were required to produce a valid identification document. The study results show that simply asking a young buyer to state his/her age is not effective, as this behavior resulted in no cases of compliance, while requesting age and requiring verifying identification generally resulted in compliance. However, asking for an identification document does not always lead to compliance. Because there was no compliance in off-premise outlets, the findings of St. Pierre et al. that the off-premise compliance rate is dependent on the gender of the buyer and that female vendors are more likely to ask for identification compared to male vendors were not reproduced in this study.

Low compliance with age limits is not exclusively a Dutch problem. Worldwide, the results of many compliance studies indicate that compliance with regulations aimed at restricting people's access to risky products is problematic in other countries as well (Grube 1997; Willner et al. 2000; Perry et al. 2002; Britt et al. 2006; Romano et al. 2007). While the exact impact of the failure to enforce compliance with age limits demands complex and longitudinal calculations, it is important to recognize that such limits are not intended to serve simply as 'window dressing.'

To prevent any possible negative consequences for our underage mystery shoppers, we asked vendors in casinos, restaurants and bars to exchange money for playing the slot machines. Consequently, sales personnel were actively involved in the decision-making process with respect to age-related compliance, as is the case when asking for a lottery ticket or a scratch card. In daily practice, however, catering industry personnel are not always asked to change money, as (young) people may engage in playing slot machines without speaking to on-site personnel. Therefore, the actual availability of slot machines to youth may well be even higher, especially as 38 % of the slot machines in restaurants and bars in our study were not 'in sight' of vendors.

In our results we found some evidence for a relation between crowdedness and compliance. However, as estimating crowdedness in gambling outlets can be a rather subjective task we should be careful with drawing conclusions about this relation. Future research is needed to objectively operationalize the concept of crowdedness in a gambling context. Another finding suggests that signs communicating the legal age limits are only minimally displayed, and no standard governmental signs are in use. Thus, it is advised that such signs be developed and that establishments be forced to visibly display the signs; however, an emphasis on the importance of compliance must also be increased. Currently, the legal age limit on the purchase of gambling products and the participation in casino activities is considered to be a 'dead letter' in the law, as enforcement is lacking.

The mystery shopping research approach has proven to be effective and shows clear results suggesting that it may have a strong societal media impact if applied properly. Surveys are not a valid research option, not only because social desirability bias introduces the potential for inaccurate responses, but also because making correct judgments about one's behavior in ambiguous situations is particularly problematic. Compliance rates derived from underage visits, however, may contribute to compliance, as these rates provide policy makers, the industry, vendors and/or the general public with feedback on actual compliance levels. Such feedback may increase awareness of the problems that are associated with enforcing age limits. Providing feedback and raising awareness are considered to be essential instruments for improving compliance with age limits, as feedback is necessary to associate possible violations of the regulations with negative consequences. Therefore, a valid and visible system of external surveillance, which affects the vendors' perceived risks of being caught for non-compliance while also emphasizing the legal basis and the importance of complying with the age limits, is essential. Various types of enforcement are effective ways to reduce the sales of risky products, especially if these enforcement types not only include warnings and penalties in the case of violations but also focus on the actual and perceived likelihood of being caught. Accordingly, enforcement checks can increase compliance (Gosselt 2011; Forster et al. 1998; Montgomery et al. 2006; Wagenaar et al. 2005; Preusser et al. 1994; Lewis et al. 1996; Scribner and Cohen 2001).

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