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STRUCTURAL AND ENVIRONMENTAL DETERMINANTS OF GAMBLING BEHAVIOURS IN ADULTS AGED 50 YEARS AND OVER

Community Care Gaming

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Executive Summary

Community Care Gaming is a regulated, not-for-profit organisation with a twofold mission; firstly we are working with partners to understand how virtual reality might reduce loneliness and social isolation; reduce the risk factors for dementia; and aid stroke survivors' recovery. In addition, we are contributing to the research evidence base, delivering impactful safer-gambling products and quality-assurance frameworks and providing thought-leadership around the impacts of gaming, gambling and technology on humanity. All our work is born out of lived-experience and delivered by a team with several decades in academia, technology, game design, customer insights and data analytics, education, gambling compliance and safer gambling.

One aspect of our safer gambling work is a unique programme with GREO, and the Network to Reduce Gambling Harms (NRGH) to establish, deliver and evaluate a gambling harm prevention programme, specifically aimed at those aged 50 years or over. This is the first programme of its nature for this specific age group globally.

To inform the programme's content and establish a Theory of Change, we have undertaken a piece of research to understand the structural and environmental determinants of gambling behaviours in adults aged 50 years and over. Although the harm associated with gambling has been historically linked with youth, it has consequently been considered to be impulsive, neurodevelopment-related, peer-influenced, and digital-absorbing (Blaszczynski and Nower, 2002; Canale et al., 2016), and older adults can become susceptible to potentials harms, but through separate pathways.

This report explores:

1. **Structural features:** of gambling that may encourage longer or more risky gambling include speed of play, near-misses, variable rewards schedules, accessibility, and increased stakes *(Griffiths, 1993; Parke and Griffiths, 2007; Schuler, 2012)*.
2. **Environmental factors:** such as the venue design, social isolation, online platforms, personalised marketing, and retirement shifts, which define the engagement in gambling in later years *(Hing et al., 2014; van der Maas et al., 2018)*.
3. **The age factor:** whether youth-related risk factors, impulsivity, psychological stress, financial independence, and social pressure, remain influential for those aged 50 years and over *(Peters et al., 2007; Samanez-Larkin and Knutson, 2015)*.
4. **Neurocognitive limitations or weaknesses:** associated with executive functioning and risk assessment in adults with dementia, stroke, or loneliness *(Clark, 2010; Hsu and Willis, 2013)*.
5. **Protective policies:** such as cognitive load modifications, pre-commitment appliances, bespoke restrictions, and the role of operators *(Auer and Griffiths, 2014; Gainsbury et al., 2020)*.

In general, the age-specific neurocognitive deterioration, social determinants, and life transitions present certain vulnerabilities, which underpin the specific consideration for harm-minimisation strategies in adults 50 years and older.

Introduction

Gambling Participation Across the Lifespan

Gambling is a common normalised activity in adulthood, where its practice cuts across the early adulthood to later life. This is done by older adults who engage in lotteries, bingo, casino games, sports betting and more online (or remote). Later life gambling is deemed a low-risk, entertainment activity, with significance on peer socialisation and normal entertainment. The traditional bingo hall epitomises this stereotype and there is much value to be gained for the player from a low-stake physical environment. These are summarised as:

- **Minimising Loneliness:** Bingo is usually played in groups, such as in community centres, clubs, licensed venues or care homes. This allows older adults to spend time with others, talk, and share an activity. Regular social interaction can help reduce feelings of isolation and loneliness, which are common in later life. Being part of a group activity can also help older people feel included and connected to their community.
- **Supporting Cognitive Health:** Playing bingo requires players to listen carefully, recognise numbers, and quickly check their cards. These actions help keep the brain active by improving attention, memory, and concentration. Regular mental stimulation like this may help slow cognitive decline and keep the mind engaged.
- **Improving Emotional Well-being:** Bingo is enjoyable and exciting, especially when players are close to winning, playing within their means which often equates to low stakes. This fun and anticipation can boost mood, reduce stress, and increase happiness, which is important for overall mental health in older adults.

Around 3.2 million play bingo in the United Kingdon every week. The average age of a bingo player is 58 years old and 45% of bingo players are over the age of 65 years (Gitnux, Bingo market data report, 2026).

Looking at other forms of gambling for those aged 50 years and over. In the UK, around 3% of adults play slot or fruit machines, and participation decreases with age. Based on a population size of 37 million, this suggests that roughly 700,000 to 1 million people aged 50 and over may play slot machines in the UK. Scratchcards are also a common form of gambling, and survey data show that roughly around 15–20 % of adults in their 50s and around 13 % of those aged 65 and over report buying scratchcards in a given fourweek period, meaning millions of people aged 50+ participate. Finally UK data indicate that sports betting becomes less common with age, with around 17.5 % of 45–54yearolds and about 11 % of adults aged 55+ placing sports wagers regularly, suggesting that several million people aged 50 and over in the UK bet on sports in a typical month (Gambling Commission, 2025).

For some gambling products, characterized by a high-rate of events, near-misses, variable ratio reinforcement, and play continuously, can in some consumers, affect the psychology of rewards in relation to time, as an increase in time-in-play and spending may be connected (Griffiths, 1993). Although these potential structural features can relate to every age, ageing-related cognitive and psychosocial changes are specific to warrant investigation.

Young people have been traditionally considered as an at-risk group in terms of factors including increasing impulsiveness, lack of executive control, and heightened rewards sensitivity during adolescence (Blaszczynski and Nower, 2002). Safer gambling interventions and preventative education targeting young people with a focus on such things as impulse control, digital literacy, age verification, and advertising exposure (Canale et al., 2016; Gainsbury et al., 2015) are positive steps. However this emphasis has created relative gaps in the knowledge of present risks of gambling in older adults, especially in the interaction of structural and environmental factors with life-stage risks.

Emerging Evidence of Harm in Older Adults

Recent evidence shows that adults over 50 years of age are also vulnerable to gambling-related risks (age-based risks), but through different channels.

Vulnerability is caused by loneliness, bereavement, retirement, and cognitive decline. Physical gambling establishments can be regarded as social centres that strengthen the involvement (Hing et al., 2014; van der Maas et al., 2018). It is generally believed that ageing results in better regulation of emotions and less impulsivity; nevertheless, the shift in reward processing and executive functioning can lead to changes in uncertain decision-making (Samanez-Larkin and Knutson, 2015). Mild cognitive impairment and dementia also undermine financial judgement and capability of handling complex wagering choices (Hsu and Willis, 2013).

Age-based risk means that the needs of individuals related to the age group over 50 will have to be carefully addressed, and the implementation of novel, evidence-based interventions should be created according to the needs of adults and not based on youth-related approaches.

1. Structural Characteristics of Gambling Products and Adult Effects 50+.

Structural characteristics are design qualities of gambling products that determine player behaviours, serve to affect persistence and may affect increased expenditure in an environment which functions by psychological reinforcement and not individual vulnerability (Griffiths, 1993). Although studies have covered these effects in the general population, it is the interaction of these effects with the cognitive, social, and financial background of adults aged 50+ that deserve special discussion.

Speed of Play and Continuous Betting

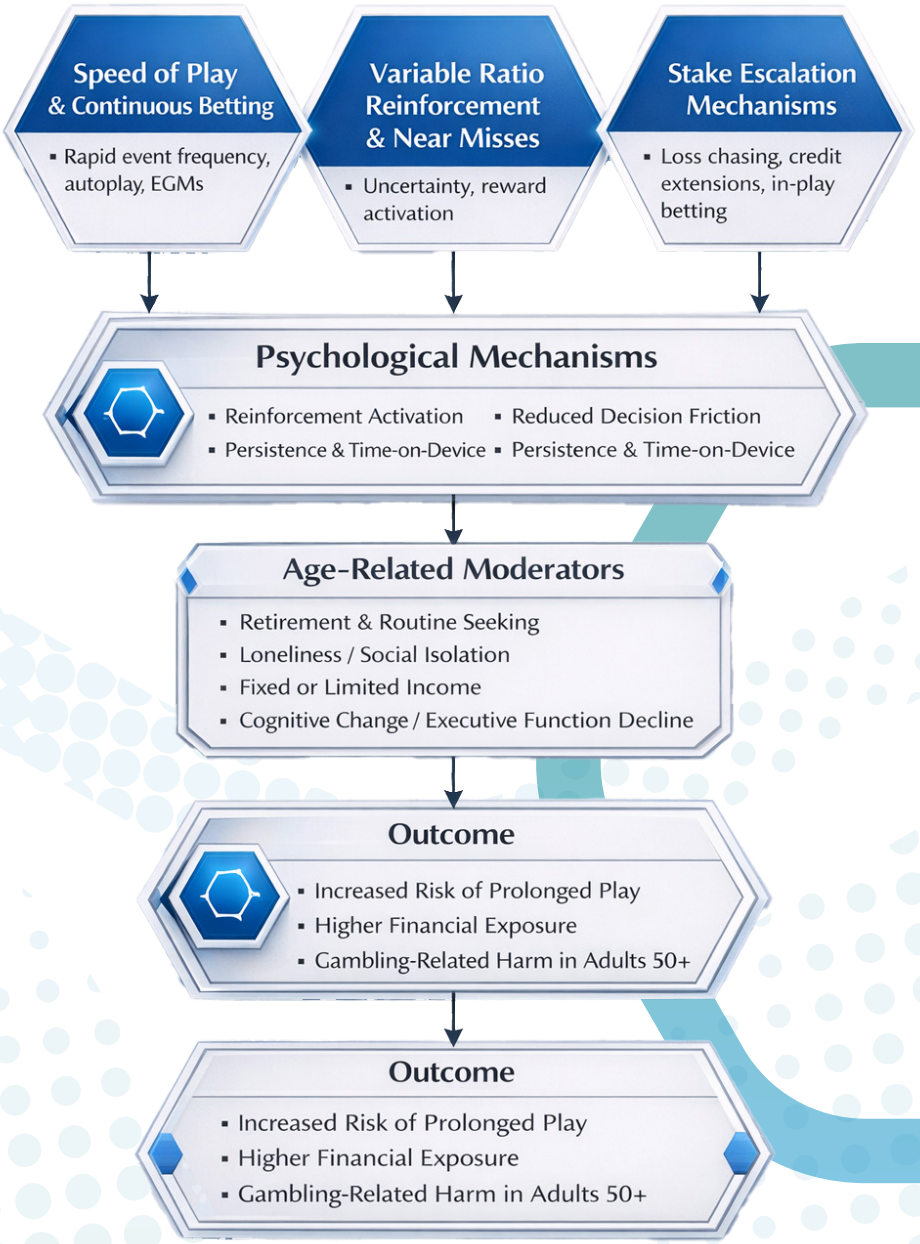
The frequency of events (occurrence in seconds) shuns reflective decision-making process and enhances behavioral momentum (Parke and Griffiths, 2007). Repeated wagering takes place in continuous betting formats such as fruit machines in venues, online slots, some online casino-style games, and others that do

not have natural breaks. These designs may be dissociative, and the player becomes unaware of time and spending. Many licensed products have forced breaks and messaging about time and money, but this is absent in some online casino-style games and illegal offerings (such as the black market, or unregulated and often offshore providers).

Those aged 50 years and over might be more interested in slot-style games or bingo-style, since they are familiar and repetitive (Hing et al., 2014).

Playing games repetitively makes the setting less chaotic to some, especially people going through stages of retirement or who may be lonely due to the loss of their partner or loved ones, but the repetitive nature of a game can also lower natural boundaries. This is enhanced by digital autoplay, smooth interfaces and a lack of physical cash payment which may make the stakes higher among adults who use online platforms later in life and cause unintentional overspending. This underlines that physical venues are often a safer environment for older people to enjoy gambling.

Structural Gambling Characteristics and Age-Related Vulnerabilities in Adults 50+



2. Environmental Characteristics Affecting Gambling Behaviours in Adults 50+

Environmental factors include physical, social, and economic environments which affect gambling in additional to the product design.

Gambling-related harm arises as a result of the interactions among individual vulnerability, structural characteristics as well as exposure to the environment (Blaszczynski & Nower, 2002). Adults over 50 years of age have distinct risk pathways that are defined by transitions in life stages, health conditions, and social roles (Hing et al., 2014).

Physical Environments

The design of casinos and physical venues encourages immersion and longer play associated with the design, which includes controlled lighting, no clock or window, ambient audio, and cluster of machines (Schüll, 2012). These distortions lessen natural stop signals and encourage involvement and structural product attributes. Among those aged 50 years and over, the reduction of cognitive load by means of familiar machine interfaces, comfortable chairs, and predictable layouts, as well as alignment with routine-based leisure values is likely to attract older adults (Hing et al., 2014). Diversity of activities tied to the daytime, and transportation programs, e.g. shuttle services between retirement communities or care homes, further enhance their access, making it more frequent. The mechanisms of structural reinforcement in combination with repeated exposure can strengthen habitual involvement in later life (Griffiths, 1993). It is important to note that this familiarity should not been seen as a negative as for some people over the age 50 years, a weekly or bi-weekly trip to a physical gambling environment may be the only human interaction that per may have.

Social and Psychological Environment.

Social isolation and loneliness can be severe contributors to gambling among those aged 50 years and over in some cases. Physical environments tend to be a place of socializing, where people can communicate, develop routine, and have a stimulus (van der Maas et al., 2018). Grieving, depressed, or identity-lost adults can cope with gambling, which is in line with the emotionally vulnerable sub-pathway of problem gambling (Blaszczynski and Nower, 2002). Emotional significant stimuli can have an increased level of salience as age increases, which makes gambling one source of stimulation especially reinforcing when other sources of stimulation are reduced (Samanez-Larkin and Knutson, 2015).

Marketing and Promotions.

Marketing strategies work towards older adults such as loyalty programs, tiered-reward programs, offers personalised to older adults with free transport or meals should be viewed as a positive.

This ensures those over 50 years are not gambling in isolation, instead the activity becomes a group activity. Gambling in isolation is associated with potential gambling harm, so these campaigns position gambling as harmless entertainment and less risky (Gainsbury et al., 2015). Those organising such trips, and those in charge of the care of older people, would benefit from training on gambling behaviours, potential harms, risk factors, signposting and support they can offer would be helpful.

Financial Environment

Late life predisposes vulnerability due to financial aspects. Reputations and lack of earning power make pensions or savings a dependence. Financial judgement and the cumulative expenditure monitoring are also impaired by cognitive ageing and dementia risk (Hsu and Willis, 2013). Online gambling can compound harms because they offer constant, abstract and automated access to gambling possessions frequently together with personalized advertising (Gainsbury et al., 2015), unlike physical venues.

All in all, physical immersion, social setting, promotion tactics, and economic status interact with the structural product characteristics to influence gambling behaviour among adults aged over 50. The vulnerability does not just exist in an isolated form due to age; it is the interaction of environmental exposure, personal situation, and product design (Blaszczynski and Nower, 2002).

3. Do Youth Risk Characteristics Exist among Adults Above 50?

It is generally accepted that young people are potentially at a higher risk of gambling related harm because of impulsivity, peer pressure, online addiction and financial autonomy (Canale et al., 2016). The developmental maturity associated with age (50 years and older) tends to increase impulsivity and deliberative judgments, although age-related cognitive, social, and emotional alterations may produce gaps in impulse control and deliberation that overlap with young people risk pathways in part.

Major areas of focus here include four areas, namely, impulse control, psychological vulnerability, social influence and normalisation of (an unfamiliar) digital space.

Impulse Control and Brain Maturity

Impulse control, it is associated with prefrontal cortex integrity which allows one to plan, inhibit and delay gratification (Peters et al., 2007). Adults older than 50 years do not show as strong an impulsive reaction to stress and lack of self-regulation as do young people or young adults (Samanez-Larkin and Knutson, 2015). Nevertheless, inhibitory control may be compromised because of age, brain damage, or dementia that predisposes impulsive gambling regardless of the past maturity (Hsu and Willis, 2013). Seemingly normal older adults can now have impaired reward processing as a result of structural brain changes that influence risk-reward assessment, and hence may result in longer play or bad financial decisions like those found in the young people (Clark, 2010).

Psychological vulnerability.

It is important to note that emotional vulnerability is a risk pathway in those aged 50 years and over. Gambling dependency can be as a result of depression, anxiety, bereavement, and social isolation, just like mechanisms for young people (Blaszczynski and Nower, 2002; van der Maas et al., 2018). These vulnerabilities may be enhanced for those aged 50 years and over and may be down to life changes like retirement, losing a sense of self, losing a partner or a lack of daily routine which, in its turn, may lead to some adults engaging in gambling out of stimulation, socialization, or emotion regulation (Hing et al., 2014). The continuation of emotional escape gambling in later life is not an issue of universal concern, but the emphasis on age-specific psychosocial triggering of the behavior would warrant interventions based on age-specific considerations.

Social Influence

Although peer pressure is the key determinant among young people in gambling, this is not the case for older people (Canale et al., 2016). Social isolation, the lack of close relationships, or loss of a partner or society (i.e. where the world is changing faster that those over 50 years can keep up) may enhance the dependence on gambling (van der Maas et al., 2018). Physical venues have the potential to become social centres and strengthen repetitive visiting, forming informal social support, something that online gambling cannot replicate (Hing et al., 2014).

Digital Normalisation

The concept of digital normalisation, which implies the incorporation of online betting into leisure and gaming spaces, has traditionally been more applicable to young people (Gainsbury et al., 2015). Adults above 50 years old are less digitally active, although more people are currently using smartphones, tablets, and computers. This population is now exposed to gambling access, automated promotions, and gamified interfaces. All of these digital characteristics together with cognitive or financial vulnerability can increase risk, which is reminiscent of certain structural and environmental processes among younger groups but modulated by age-specific factors (Schüll, 2012; Gainsbury et al., 2015).

4. Neurocognitive and Health-Specific Vulnerabilities.

The unique neurocognitive and health-related vulnerabilities encountered by adults of 50 years and above might determine gambling behaviours. As opposed to young people whose risk is largely caused by impulsivity and peer pressure, older adults are susceptible in most cases due to neurological alterations, chronic health conditions and psychosocial influences (i.e. social, cultural, and environmental factors such as stress, social support, relationships, and living conditions that directly impact an individual's mental, physical, and emotional health). The knowledge of these weaknesses is doubly essential when it comes to strategies to reduce harm and protect those aged 50 years and over.

Dementia and Cognitive Impairment.

Dementia and other associated cognitive impairments have a substantial influence on executive functioning, such as planning, working memory, and inhibitory control (Hsu and Willis, 2013). The executive dysfunction hurts the accuracy in risk assessment of an individual, probability-based outcomes, or improves long-term events, and causes gambling decisions to become subject to errors. This causes those over 50 years with cognitive decline to potentially have greater risk of over-spending or impulsive, carefree gambling.

Risk of financial exploitation is increased in this group because the lack of impaired judgment may limit the ability to make identifications of deceptive promotions, misleading odds, or persuasive selling practices. The Black Market is of particular concern, criminals who will look to exploit older people, akin to other 'scams' such as fake investments or banking scams which pray on the elderly and vulnerable. In addition, lack of inhibition can turn what would have been recreational gambling to compulsive and repetitive behavior.

These weaknesses can be aggravated by structural elements like high frequency of events or sustained play, and a cycle of engagement that is hard to break becomes the result. This makes online gambling a particularly risky activity for this age group as it is often done is isolation.

Stroke Survivors

Focal brain damage especially in the frontal lobes can also lead to an increase in vulnerability in stroke survivors. Impulsivity and lack of inhibited behaviours have been associated with damage to the frontal regions which are important in impulse control, planning and risk evaluation (Peters et al., 2007). Stroke causes deficits in decision-making that result in an inability to balance the risk of losses and potential rewards to go to more risky gambling behaviours. Another factor is that of altered reward processing.

Dopaminergic axons are thin, highly branched neural projections from the midbrain that release dopamine, acting as key regulators of motor control, reward learning, and cognitive functions in the striatum and prefrontal cortex. These can change due to neurological alterations after a stroke and change the win, near-miss, or even (changing reinforcement) sensitivity. These changes combined with structural game elements like near-miss events and quick series of events can enhance persistence and the level of losses in gambling. Stroke survivors can then have patterns of engagement that are similar to those found with younger impulsive gamblers even though they are mature adults.

Loneliness and Social Isolation.

The older population is prone to loneliness and social isolation, which is also a major psychosocial risk factor to gambling-related harm (van der Maas et al., 2018). Gambling may be used as a coping strategy, which includes socialising, excitement, or giving one a meaning in situations where other social groups are scarce. The lack of emotional regulation, which can be a result of age-related cognitive impairment or chronic illness, might increase gambling dependence to manage the players mood.

Gamblers who become socially isolated can be more likely to engage in the activity, be it venue-based (which is safer) or home-based remote gambling which is riskier due to the lack of environmental social controls.

These behaviours may also increase development of a habit which is a physical venue, with friends, and if supported by a carer who has knowledge of the markers of harm, is less risky than the player remote gambling in isolation.

Medication Effects

Some drugs may change gambling behaviours as well. Specifically, it has been reported that dopamine agonists used to treat Parkinson disease and associated disorders are linked to impulse control disorders including compulsive gambling (Clark, 2010). Although the risk of medication-induced gambling could be characterized as low, it presents a clinical risk of significant importance among the affected people. This is something that carers or children of the older players need to be aware off.

5. Care of Adults Above 50 Years.

To eliminate gaming-related harm in adults aged 50 years and above, interventions must be developed according to cognitive, social, and financial conditions of every adult. In contrast to youth-oriented approaches, many of which tend to focus on reducing their impulsivity and controlling peer influence, the protection of older adults requires one to consider executive performance, societal loneliness, and financial frailty. Successful interventions involve self-control solutions, changes in cognitive load, operator duties and financial protection to offer a harm-reduction paradigm.

Self-Regulation Tools

The self-regulation measures enable gamers to undergo sparse exposure to gambling using voluntary or automatic mechanisms. Such typical tools are deposit limits, time-out, or session capping, and pre-commitment (Auer and Griffiths, 2014). It has been shown that the elderly are especially responsive to information-based interventions, which can probably be explained by more conscious decision-making and increased conscientiousness than younger age groups (Hing et al., 2014).

Pre-commitment schemes, where players can pre-determine a restriction (spending or time) encourage unplanned spending and loss-chasing behaviour. Time-out features are offered that enable a short break in gambling that contributes to thinking and breaking the routine.

The limits on deposits will also give instantaneous responses to limits of finances, and help older adults with fixed or limited income.

Older individuals tend to be more obedient to these tools than the young when these tools are well presented and backed up by continuous feedback on player behavior and adoption. As older people have limited ways to bolster their income, this is a unique characteristic which make these tools particularly effective.

Cognitive Load Adjustments

Adjustments to cognitive loads relate to easing the interaction with gambling platforms to match changes in the executive functioning, working memory, or speed of processing with age. The game speeds, simplified dashboards, and lower sensory stimulation can be some of the features that can be used to enhance understanding and interest in self-regulation tools (Schüll, 2012).

When the frequency of playing games is slowed with more pauses between rounds or limited use of autoplay, there is a greater chance of making conscious choices without adopting impulsive actions. Reduction in flashy visual and auditory signals alleviates cognitive overload which helps the protection interventions to remain effective. The case of older adults with mild cognitive impairment or those with neurological changes is of particular concern, because cognitive load adjustments need to be made so that reaction to harm-reduction systems could be retained and maintained.

Operator Responsibilities

Gambling operators are critical in protecting older people. Potential risk can be noticed by age-specific indicators of monitoring, e.g. frequent high-stakes play or deposit adjustments. Training of staff is essential in terms of identifying indicators of cognitive decline, such as blindly following rules in the game, repetitively trying to win, or lack of financial discipline (Hsu and Willis, 2013).

Differences in Approach: Youth vs. Adults Over 50

Youth	Adults Over 50
Impulsivity-focused interventions	Cognitive decline monitoring
Peer influence messaging	Loneliness and social isolation screening
Digital literacy education	Simplified interface and tool usability

Safeguarding strategies must be tailored to age-specific vulnerabilities. Youth interventions prioritise impulse control, peer messaging, and education around digital gambling literacy (Canale et al., 2016). In contrast, adults over 50 benefit from strategies accounting for cognitive decline, social vulnerability, and financial limitations. Simplified interfaces, slower gameplay, and supportive behavioral feedback enhance accessibility and effectiveness for this population.

Financial Safeguards

Older adults particularly require financial protection as they usually have a fixed income, or they have limited ability to pay the loss. Time to reflect after taking large withdrawals or because of repetitive high-stakes activity helps minimize reactive spending by using cooling-off periods. Third-party management, including family alerts or jointly managed accounts, put in place a fraudulent band around the neck of cognitively impaired people (Hsu and Willis, 2013).

There is also the possibility of operators to provide clear and easy to understand information on cumulative losses, residual balance and total spending, this is particularly useful to individuals who have mild memory impairment. Combined with self-regulation tools and cognitive load balancers, the combination of financial safeguards provides a multi-layered, protective system.

Adults aged 50+ with self-regulation, workload control, alertness on the part of their operator, and financial protection can be assisted in maintaining autonomy through interventions to minimize harm.

Conclusion

Evidence in this report highlights that the risk of gambling as adults is due to multiplicity of factors manifested as interaction between features of structural product, environmental exposure, alterations in cognition, and the occurrence of social and financial conditions in adults who are aged 50 years and above. Age-related cognitive impairment and neurological causes, including dementia or stroke are associated with new vulnerabilities, especially in impulse control, risk judgment and money judgment, although older adults generally enjoy developmental maturity which has a beneficial impact on impulse control and deliberate decision-making (Peters et al., 2007; Canale et al., 2016).

Age-Specific Vulnerabilities and Risk Pathways.

Such structural characteristics as fast frequency of events, intermittent, and close-miss outcomes occur in all ages, but the vulnerabilities of older adults vary as compared to younger players. Other social and psychological aspects of loneliness, bereavement, and social isolation may also strengthen gambling as a way of coping (van der Maas et al., 2018; Hing et al., 2014). Risk is compounded by financial constraints, such as a fixed income and the inability to recover any losses. All these together point to the fact that older adults are less prone to the pressure of peers or impulsivity that are inherent to younger players, but still there are overlapping routes to harm.

Safeguarding and Policy Implication.

In consideration of accessibility, the safer gambling tools are effective among this population. Front-end controls, such as pre- commitment controls, limit on deposit, time-out tools, simple dashboards, and slowing down the game process enable informed decision making and alleviate the loss-chasing (Auer and Griffiths, 2014; Schultz, 2012). Training to raise awareness of the specific, potential harm indicators that apply to those over the age of 50 years should be considered to both children of older parents, carers, and staff working on physical venues such as bingo halls which are popular among this age group should be considered.

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