Gaming and Gambling Disorders among Elderly and Challenges for Public Health Policy and Social Work



Miroslava Tokovska (Kristiania University College)
Michal Kozubik (Constantine the Philosopher University in Nitra)
Andrea Seberini (Matej Bel University in Banska Bystrica)
Hans-Jørgen Wallin Weihe (Lillehammer University College,
Inland Norway University of Applied Sciences)

ABSTRACT

Gaming and gambling disorders are behaviours which engage young and older persons and affect both women and men. The aim of this paper was to describe gaming and gambling disorders among the elderly and discuss the dimensions of digital, traditional and alternative life on the internet. The social impact and consequences of gaming and gambling disorders, and the arising new challenges for social work, were identified.

The current review sought to conduct an overview of literature relating to gaming and gambling disorders connected to the elderly, defined as persons aged 60+. The findings are based on critical review of descriptive and policy literature on gaming and gambling disorders, and of the relevant research. Additionally, the findings support the implementation of public health policies to prevent problem gambling among the elderly.

The contribution of this research is that it provides an overview of a broad and intercultural resource for the development of public health policy and improvement of the training of social workers. Social work needs to develop a strategy to educate professional support workers in the agency on the role of the social workers' scope of practice.

Further research focusing on the education of social workers working with elderly, and the development of tools for identifying the motivation and treating the gaming and gambling problem, is recommended.

KEY WORDS:

Gaming and Gambling disorders, Elderly, Social Work, Public Health

INTRODUCTION

The world's population is aging and becoming a global phenomenon. Based on the predictions of Eurostat (Eurostat, 2019), the age structure of the European population is about to change significantly within the next few decades. Studies have shown that gambling and gaming is a popular social activity among older adults across many cultures (Black & Allen, 2021, Roberts et al. 2021, Granero et al. 2020, Wang et al. 2020). Research concerning the elderly (aged 60+) and their motivation to gamble, the relationship to gambling disorders, and the extent and causes of gambling disorders in older adults, has been limited. Thus, in this article we will discuss the challenges for public health policy and social work. These challenges will obviously depend upon the kind of



work the social worker is engaged in. The reason for focusing on the elderly in this way is that the challenges are a concern for social work professionals, and furthermore they have received little attention among researchers focusing on problems of gambling disorders among the elderly (Costes et al. 2015, Subramaniam et al. 2015).

The terminology used with reference to gambling and gaming are variable. Terms such as Gambling, Pathological Gambling (Gambling Disorders), Problem Gambling, Gaming and Gaming Disorder are not the same or synonyms. Traditionally gambling is an activity where someone risks money or belongings, there is an element of randomness or chance involved and the purpose is to win. In the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Pathological Gambling (PG) was renamed gambling disorder and moved to the chapter on substance-related and addictive disorders to acknowledge research evidence suggesting that PG and alcohol and drug addictions are related (Black & Allen, 2021). Incarcerated men with a diagnosis of pathological gambling are characterized by psychopathic personality disorders, alcohol problems and criminality (Pastwa-Wojciechowska, 2011). The term problem gambling is also employed to describe gambling that results in adverse consequences for individuals, families, and communities (Dowling et al. 2016). Problem gambling is associated with alcohol use, drug abuse, sleep deprivation, antisocial tendencies and family dysfunction (Uwiduhaye et al., 2020).

Gaming refers to playing electronic games as a hobby, whether through consoles, computers, mobile phones or another medium altogether. Gaming disorder is defined in the 11th Revision of the International Classification of Diseases (ICD-11) as a pattern of gaming behaviour ("digital-gaming" or "video-gaming") characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences (WHO, 2018). We use the term gambling disorder and gaming disorder in this study.

In the digital world, games, gaming and gambling are present in most homes and available for many of the elderly. Internet-based games and the internet itself are an important part of social life. Gambling is a socially acceptable form of recreation for older adults, but excessive gambling can lead to negative financial consequences and mental health problems (Subramaniam et al. 2015). The elderly are known to be gambling more and more, and the proportion of pathological gamblers is increasing in this age group. The findings of this current review support the need to consider the determinants of gambling in this group. Pathological gambling among older adults is associated with medical, psychiatric and social comorbidities. One motivation for gambling in older adults involves the search for entertainment and the fight against boredom and loneliness (Landreat, et al. 2019, Matheson et al. 2018).

Different Countries have various legislation to regulate gambling. Many jurisdictions support measures to promote responsible gambling and assist problem gamblers. However, even if gambling is increasingly promoted by the international gambling industry, the legal regulation remains national. Gambling industries have also introduced some measures intended to assist, or give the impression of assisting, at-risk and problem gamblers (Abbott, 2020, p. 2).

More recently, international research has shown that there are some benefits to gaming and gambling, such as improving digital skills, observation and hand-eye

OPEN ACCESS

coordination, using strategy and different tactics, entertainment, increasing social contact with other people, and active mental exercise (van der Maas et al. 2017, Tse et al. 2012). It is beneficial for mental health to keep the brain engaged. Gambling gives older adults a chance to cope with loneliness or negative emotions such as anxiety or depression (Vander Bilt et al., 2004) and may make them feel young and alive again (Bjelde et al. 2008). However, if a person spends more and more time gaming and additionally starts spending money on online gambling, there can be serious consequences in terms of disruption of life and the potential for problem gambling. Gambling disorder (GD) is a secret addition and debilitating mental illness characterized by persistent patterns of dysregulated gambling behaviours (Etuk et al. 2020). Many problem gamblers manage to hide the scope of their financial ruin from friends and families until it too late, or at least costly to remediate the damage. There are two hallmark characteristics of gambling disorders: "chasing", which involves repeated attempts to relive a win or recoup a loss, and "bailouts", i.e. borrowing from family, friends and others to address the growing debt (Begun & Murray, 2020). Clinical experience from family and individual counselling provides ample evidence of many cases resolved within families, but often at great cost (Overå & Weihe, 2016). Gambling and its financial costs (increased criminality, worsened work productivity, homelessness, health problems of gamblers and their families, etc.) are much higher than tax revenues (Hofmarcher et al., 2020). Those addicted to games and gaming represent a considerable challenge for social work professionals.

The problems of gambling are similar to those of gaming but there are differences due to the financial problems often resulting from compulsive gambling. Increasingly gambling has migrated to the internet, and it has become readily accessible via mobile devices. Gambling disorder and gambling-related harm present a significant global public health challenge (Abbott, 2020).

Both kinds of addiction have quite similar psychological mechanisms to various kinds of chemical, drug or alcohol dependencies/addiction. Alcohol use disorder (AUD) and gambling disorder (GD) are documented as being highly comorbid, and are accompanied by shared etiology, neurobiological features, psychiatric comorbidity, vulnerability factors and psychological risk factors (Kovács et al. 2020). Diagnostic systems such as International Classification of Diseases (ICD) and Diagnostic and Statistical Manual of Mental Disorders (DSM) are developing diagnostic criteria, but considerable discussion persists about where to draw the line between diagnosing pathology and tolerating bad habits (Begun, 2020, American Psychiatric Association (APA), 2018, Rash et al. 2016). The question of addiction to video games and internet is particularly controversial (Weigle, 2014).

THE DIMENSIONS OF DIGITAL, TRADITIONAL GAMING AND GAMBLING AND ALTERNATIVE LIFE ON THE INTERNET

GAMING

With the development of digital communication, and the possibilities for downloading games and interactive gaming, it is possible to participate in all these activities



with computers and smart phones. Computer use starts at a very early age, and it is possible to be active in advanced age too. Playing or gambling can be done in private homes as well as in public arenas. Even in nursing homes many disabled elderly will use smartphones and digital communication enabling them to communicate with relatives, and also to gamble.

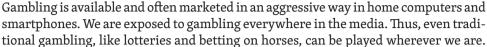
Educating the digital generation is a new challenge (Erstad, 2010 and 2004). For those working within health and social work, the digital experience is both a challenge for treatment and a possibility for counselling, prevention programs, providing information and communication.

Social interaction is important for Massively Multiplayer Online Role Players Games (MMORPGs) (Cole & Grifitts, 2007). The elderly's social interactions in MMORPGs are motivated by social, achievement, and immersion factors; can take place on several different levels; and can be casual or intimate. The playing of MMORPGs offered the elderly opportunities to sustain off-line relationships with family and real-life friends and to build meaningful and supportive relationships with game friends. Additionally, MMORPGs have the potential to function as a "third place" for older adults to socialize and be entertained as in a real-world club or coffee shop (Zhang & Kaufman, 2016). Problematic usage among highly engaged players of MMORPGs is difficult to diagnose. On the one hand, playing at a high level requires many hours of playing; on the other hand, such playing might have great social, and often health, implications (Peters & Malesky, 2008). Such playing appears different when viewed from the perspective of juveniles compared to the perspective of adults (Flataen et al. 2010). Few elderly people participate in such online games. However, in the years to come we can anticipate that gaming among the elderly will be a common recreational activity, and thus the challenges of the young and the elderly will mix. In role-playing games, age is not a visible dimension and even the old can behave and interact in the same way as young people if they can use the technology. One obvious result of culture becoming increasingly digital is that those who are not able to master the digital technology are excluded from interacting with others. Thus, the exclusion process in society gets stronger, and further ostracises vulnerable groups.

For those with a warped sense of reality the fantasy world of games and role-playing is confusing, and sometimes difficult to separate from "real" reality. In countries with easy access to guns, older adults or mentally ill people playing violent shooting games is a serious concern. However, it is possible to use other weapons and even a car for destructive purposes. In some games, violent acts with cars are part of the role-playing within the game. Those who cannot separate gaming from reality may easily become a danger to both themselves and others, in multiple ways.

Many of the games frequently played are interactive and without borders. Gaming has no frontiers, and since gamers relate to other gamers in other parts of the world, gaming goes on 24 hours a day (Stockmann & Jahn-Sudmann, 2008). Some of the games are interactive to such an extent that they might represent an alternative reality, giving high status and challenges not available otherwise. Virtual reality is explored in research often from ethnographic or anthropological perspectives (Boell-stroff, 2008; Boellstroff et al. 2012).

GAMBLING



Of course, the traditional arenas of gambling still remain, and people still play in bingo halls, on machines in pubs and betting shops, and take part in traditional lotteries. Even traditional lottery gambling is a problem for some (Griffits & Wood, 1999). Arcade machines and lotteries require no cognitive skills, and yet they might pose a challenge for some who cannot participate in more advanced games. Cognitive psychology gives an understanding of such playing, as well as more intellectually demanding games (Rogers, 1998). Slot machine gambling is an activity engaged in by many young as well as older people (Carroll & Huxley, 1994). Some of them find the lack of cognitive demands relaxing and prefer such games to the more advanced kind (Overå & Weihe, 2016).

Slot machine gambling is nowadays mostly electronic, either on the internet or in licenced gambling halls. The access to such games is easy and they are available to all of us, regardless of skill and competence. Traditional gambling activities require cognitive abilities, such as some betting games and poker.

A distorted sense of reality can result in uncontrolled gambling. However, the main problem is the blurred sense of reality mixed with the experience of the machines or the gambling context. For individuals with a disproportionate self-image, gambling can easily get out of control.

Seeing the world from the perspective of those who have problems is always a challenge. In the case of the elderly it is a particular challenge, because many of them are not able to communicate their perspective without help. In such cases social workers need to function as interpreters and communicate the perspective of the elderly.

SOCIAL IMPACT AND CONSEQUENCES OF GAMING AND GAMBLING

The effects of gambling addiction are often quite clear. Persons diagnosed with a gambling disorder must often deal with negative social perceptions (Hing et al. 2014). Public stigma is the reaction of society to people with a stigmatized condition, a process which manifests itself in negative attitudes towards the stigmatized group (Dąbrowska & Wieczorek, 2020). Many people (including the elderly) who engage in compulsive gambling will use credit cards and debit cards to pay casinos or internet gambling organizations. The stress that the problem gambler experiences may cause irritable behaviour, secrecy and arguments. Financial strains impact on all family members, and strained relationships make the experience difficult — even for extended family members, friends and colleagues. The impact of the COVID-19 pandemic on the mental health of the general population, including the elderly, has resulted in various deleterious ways of coping with daily stressors, such as alcohol, drug and tobacco abuse, and potentially addictive behaviours, such as online gaming and gambling (Tsamakis et al. 2021).





PERSONAL. SOCIAL AND FINANCIAL PROBLEMS OF GAMING

Violent games, and their influence on gamers' behaviour, are a major concern (Anderson et al., 2010; Crusser et al., 2007; Gentile et al., 2004; Griffits, 1999). On the other hand, for most gamers war-games are "war without tears", and they are able to separate reality from what goes on in the games (Stockmann & Jahn-Sudmann, 2008). The few exceptions seem to be people with additional challenges, either with their personality and/or with their psyche/cognition.

Time spent on gaming means time not used for other activities, such as social activities and other obligations. In extreme cases the time used for gaming means dropping out of school, work or other required activities. The social dimensions of such games might strengthen those reactions, forming sub-cultures where gaming is the dominating activity. We have not found any articles or publications about such problems among the elderly, although there are clinical examples of elderly people isolating themselves through gaming and gambling.

Many players experience psychological health problems (Brunborg, et al. 2013). Depression and shame (self-stigma) were among the reactions in some cases, to the extent of representing major problems for the individual. There is good reason to believe that gaming can trigger latent mental illness. The reason is often as simple as lack of sleep, while in other cases depression is a consequence of unsuccessful gaming. It is important to identify risk factors in aging in order to prevent the development of problems.

PERSONAL, SOCIAL AND FINANCIAL PROBLEMS OF GAMBLING

Many of the elderly with gambling disorders have problems in close relationships, and sometimes with substance abuse. Older adults with disordered gambling are more likely to have comorbid physical and mental health problems than non/low frequency gamblers, as well as having alcohol or substance use problems. It is possible that these other health conditions may mask gambling-related problems from health-care providers or reduce the perceived seriousness of the gambling problem relative to other health concerns (Sharman et al. 2019). Anti-social behaviour can be a passing phenomenon, but in some cases gambling results in life-long exclusion and chronic problems. Problem gamblers experience reduced familial stability and tend to suffer from worse health than the general population; conditions such as depressive moods, insomnia, anxiety, headaches and stomach problems are typical outcomes of gambling (Reith & ScotCen, 2006).

Financial problems typically arise from gambling with money, although gaming has an economic aspect as well due to the amount of time spent on the activity. Some games also make it possible to buy status and achieve certain advantages. The financial stress, deceit and arguments which can develop around problem gamblers and gamers lead to significant pressure on families (Reith & ScotCen, 2006).

Addictions to gaming and gambling are the focus for many treatment programs. A major challenge in gaming is the stress on relationships. In the case of gambling, there is the addition of financial challenges. There are many examples of families losing their livelihood, their house and belongings because of gambling debts. Social workers

are often involved in such cases. Financial ruin due to gambling is a major stress on relationships, particularly when one family member is a compulsive gambler.

In European countries, such as Germany, research has also focused on the challenge of excessive use of the internet (Kammerl et al., 2012), focusing not only on gaming, but more generally on the development of dependency on being online.



NEW CHALLENGES FOR SOCIAL WORK

In addition to the social challenges associated with the employment of persons with physical and mental disabilities, it will be necessary to address the issue of seniors with cognitive impairment becoming involved in internet gaming, gambling and abuse. In this context we consider it important in terms of vocational interest to define the indicators of problem gaming and gambling within the European Union. Currently, there is for example no clearly defined concept of cyberbullying, and little exploration in the area of vulnerable target groups in connection with gaming and gambling. Improving the skills and knowledge which help professionals to recognize the primary signals and early stages of addiction to gaming and gambling should form part of social-work training at universities and colleges.

A further challenge related to gambling and persons with dementia is the question of who has the competence to protect the elderly with dementia if they themselves have adult children who are compulsive gamblers. Crimes committed by seniors in the Slovak Republic are often connected with gambling problems in the family (Criminal Police of Slovakia, 2015). Family members, often a son, need money to finance their gambling, pay gambling debts and/or finance the use of intoxicants (mostly alcohol). The elderly become victims, often threatened and even physically abused by family members. As the digitally active generation grows older, we can anticipate that gaming will be a challenge, regardless of a person's age.

Social workers are often the mediators in relationship conflicts. One of the main problems in such mediating lies in sorting out generational conflicts that are considered "normal", and those that are seriously pathological.

For counselling services and social workers, the focus should be on those in danger of or showing signs of mental illness. For counselling services, working with and giving information to students is a high priority. The same is naturally true regarding the elderly. However, the problems of many elderly people are difficult to diagnose and help because this demographic may have few social contacts. We are likely to see increased isolation among the elderly due to the possibility of living in the digital world. It is important that counsellors do not demonize gambling and accept it as a normal recreational activity, while at the same time pointing out the warning signs and giving easy access to counselling and professional intervention.

Social workers often have limited access to subcultures. Moreover, the problems within subcultures might differ considerably from those in the majority culture, and therapy and counselling will have to consider those differences. Discussions with organizations for immigrants include raising the possibilities of suitably adapted programmes. Social workers coming from ethnic minorities will be important in such work. They will also have the advantage of being familiar with the language



and culture of the ethnic minority they work with. Lack of a common language or difficulty in communication in another language is a significant obstacle in therapy and counselling.

Preventive programmes organized by the gambling industry are ineffective or even counterproductive. Online self-help tools and counselling for gamblers should be limited to those provided by independent professionals only. Results showed that when social support workers were trained and improved their knowledge on gambling types, characteristics and related risks, it impacted directly on the clients with gambling disorders; their gambling behaviour, some cognitive distortions, and misconceptions related to the economic profitability of gambling were all reduced (Tani, et al., 2021)

Social workers are frequently counsellors both to individuals and families and to others, such as teachers (Jonsson, 2003). Counselling needs to be knowledge-based and founded on the same ethical and professional standards as other social work. Because of potential conflicts of interest, counselling on moral issues is sensitive. The same is true for problems involving what individuals consider to be private issues. Examples are issues associated with emotional reactions and sexuality.

Counselling needs to relate to practice. This especially concerns personal economy and use of time for work and social interaction. It is about family problems as well as individual problems. It is about shame, depression and individual limitations and pathology. Quite often counselling needs to address a combination of problems and very often the different reactions to those problems among the family members. Family counselling is about making family members engage in fruitful interaction about the problems the family share, and sometimes about challenges which individuals in the family wish to resolve as individuals, and not together with the rest of the family.

Internet-based counselling and treatment programmes already feature among the strategies of social work. Experience with such programs in Norway is positive (Myrseth et al., 2013). Traditional programmes using self-help approaches among people with the same problem is often helpful with gaming and gambling problems (Ferentzy & Skinner, 2003; Ferentzy et al., 2003; Ferentzy et al., 2013).

With the coming demographic changes, the social work profession has a unique opportunity to improve the education and training of social workers to meet the needs and health challenges, as well as gaming and gambling disorders, of the elderly. Gerontological knowledge in social work education can help to provide effective services. There is a pressing need to upgrade the gerontological knowledge and skills of practicing social workers. Geriatrics and gerontology, as specialized fields of knowledge, have not been sufficiently integrated into formal academic training programs. There are major trends in the health care environment which impact on social work education, including technological advances, a shift from inpatient to outpatient and community care settings, the increasing diversity of the older population, and client and family participation in decision-making. These trends necessitate social work education to emphasize new content areas in gerontology and the development of new skills in clinical, case management, care coordination, and teamwork. A significant obstacle to the preparation of future social workers, which inhibits their ability to deliver the complex services needed by older adults and their families, is a serious shortage of social work faculty in gerontology (Scharlach et al. 2010, Berkman et al. 2016)

To achieve a better aged society, we should stop considering an aging population as a negative social phenomenon; instead, we should create a society where elderly people can enjoy a healthy, prosperous life through social participation and contribution. Factors that hamper the elderly from leading a healthy life include various psychological and social problems that occur in older age, as well as a higher incidence of diseases. Thus, we should recognize the importance of gerontology and geriatrics, and a reform of social, medical-care services and public health policy is necessary in order to cope with the coming aged society.

THE CHALLENGE OF RESPONSIBLE PUBLIC HEALTH POLICIES TO GAMING AND GAMBLING

There are various approaches to problem gambling in the field of public health, which are also used to develop responsible gambling strategies. Some strategies are used internationally to combat the occurrence of gambling problems, such as better information about odds and the costs of gambling. Such strategies operate primarily at local level, and often involve a range of stakeholders, including government, treatment agencies, local community groups, academic researchers and the gambling industry itself. There are examples of mandatory initiatives where states have required lotteries to print helpline numbers on tickets and develop 'point of sale' materials about problem gambling to be posted in lottery retail outlets. The public health perspective is based on policies designed to prevent and reduce the adverse social, financial and health consequences of gambling for individuals, communities and society, which are generally categorised under the umbrella term of "Harm Reduction" (Reith & ScotCen, 2006).

Universal and targeted policies and programmes addressing major modifiable protective and risk factors (e.g. social, educational and economic disparities, unemployment, ethnic discrimination) could significantly augment gambling-focused interventions. Several non-gambling risk and protective factors also underlie other mental health disorders, morbidities and harms. Addressing these shared protective and risk factors can be expected to have widespread benefits, most likely including reduced prevalence of these disorders as well as gambling-related harm, and reduction in health and social inequities. While of major importance, reducing exposure and participation via supply limitation is unlikely on its own to reduce gambling-related harm in the short to medium term (Abbott, 2020).

The main threat to any public health approach in this area is the potential for the gambling industry and other vested interests to oppose or subvert any policies which might reduce their profits. The complexity of the systems on which policies act means that any policy must be carefully evaluated for both intended and unintended consequences, and the independence of the evaluation prioritised and protected.

THE CHALLENGE OF MENTAL ILLNESS TO GAMING AND GAMBLING DISORDERS

The challenge of those with mental health disorders depends upon the type of illness involved. Schizophrenia poses a particular challenge because of the sufferer's





distorted sense of reality. Not relating to the same reality as others can result in self-destructive behaviour, which can sometimes be harmful — and even dangerous — to others. Many games are war-games or include violent actions and role-playing, so for those who cannot separate fantasy from reality there are obvious challenges. Such games are moreover very popular.

Both of the following two examples are of young people, but nevertheless the challenges of schizophrenia are not generationally limited. The case of Anders Behring Breivik is interesting because of the dispute among professionals over his mental state. The first psychiatric commission used by the court diagnosed him as suffering from paranoid schizophrenia, whereas the second commission did not give him a psychiatric diagnosis, even if it found him to have a lack of empathy, identity problems and extreme political views (Overå & Weihe, 2016; Borchgrevink, 2014). From the point of view of the first psychiatric commission, Breivik's gaming was an important focus-point in diagnosing him as a paranoid schizophrenic.

The second case is that of the American Adam Lanza (1992–2012), who killed 26 children and adults at Sandy Hook Elementary School in Connecticut on the 14th December, 2012. He committed suicide at the scene, and had not received any psychiatric diagnosis while alive, but information that emerged after his death seemed to indicate that he suffered from Asperger-type autism. Like Anders Behring Breivik, he played various violent computer games (Williams et al. 2008; Padilla-Walker et al. 2010; Telegraph, 2013; Overå & Weihe, 2016;).

Both of the above cases received major public attention and media coverage. As pointed out by many researchers, the computer games played by them are popular among millions of computer users who have no behavioural problems (Yee, 2009, 2007; Yeoman & Griffiths, 1996). Even if most players are young people, these games are increasingly played by older generations as well. Since the games do not require physical prowess, they may be played by all generations.

The question of criminality and violence among the mentally disordered is addressed in the "Stockholm Project Metropolitan" (Hodgins & Janson, 2012). While the majority of those with such disorders are self-destructive and pose no danger to others, there are well-known exceptions. Both Adam Lanza and Anders Behring Breivik are examples of unique individual psychopathology, and therefore we must acknowledge that people with unique pathology do exist, and that it should be of high priority to prevent such individuals from acting out their disorders.

Another question is the impact of gambling and gaming on the development of mental problems, depression and suicidal behaviour (Cambell et al., 1998, Fong, 2005; von der Heiden et al. 2019). For certain people such reactions seem to be the result of gaming and/or gambling. Lack of success in gambling and loss of money can sometimes result in depression and suicidal behaviour. Gaming is not so likely to result in financial disaster but might entail feelings of loss of status and concomitant depression. We do know that various problem gamblers have mental health disorders (Cunningham-Williams et al. 1998). However, it is still questionable if these disorders result in gambling problems or if they are themselves a result of gambling (Lynch et al., 2004).

In criminal statistics, we hardly ever find elderly people with problems of violent behaviour. They might be victims of violence, but they are rarely perpetrators. While even the elderly can act with violence, their common lack of physical ability usually prevents them from committing crimes of violence. There are however cases where elderly people have committed violent crimes involving the use of weapons, giving good reason to be observant about whether firearms or other tools of violence are readily available.



THE CHALLENGE OF INTELLECTUAL IMPAIRMENTS, DEMENTIA, GAMING AND GAMBLING DISORDERS

In caring for those with mental health issues, various providers describe the challenge of compulsive gambling involving slot machines. Such machines are available in many places and are a tempting pastime. In addition to the financial aspect, these machines engage users in repetitive activities which can easily become addictive and evoke strong emotional reactions when they are not available due to lack of money. For care-providers who have to deal with those frustrations, the consequences can be grave. In addition, playing tends to be time-consuming and destructive with regard to work and other social interaction.

Many people with alcohol related dementia persist in gambling, often in an uncontrolled way (Vinsontay et al. 2021, Roberts et al. 2021). Often such gambling starts with lottery games, initially played at regular intervals, but after the onset of dementia the activity gets out of control and the players cannot remember prior purchases of lottery tickets, nor do they remember to cash in if they win, or relate to their losses. Suspicion and even hostility on the part of others, often close relatives, are common reactions to gambling by the elderly with dementia.

Care-providers and health-social workers must deal with various issues involving people with dementia, and gambling sometimes forms part of those issues. For social workers, resolving such issues is mostly a question of counselling in order to find strategies to protect the person with dementia from destructive gambling, and if possible, to enable others to help them deal with the gambling.

Intellectual disorders sometimes get involved in gaming. Most computer games are simple ones of the type not involving role-playing, and therefore not requiring a high level of cognitive skills. On the other hand, some gaming activity might become compulsive and consequently affect the behaviour of the affected players in a negative way. It is important for the social capital of the mentally disabled to participate in social interaction (Meyer, 2008). Gambling and gaming are easy ways of interacting, but with considerable disadvantages as they can put the elderly at risk of consequences and challenges beyond their control.

In the case of gambling for money, the practically guaranteed consequences are draining of the individual's finances and creation of high levels of tension and frustration. On the other hand, this type of gambling will usually stop when the affected person runs out of money. The frustration of not playing can be great and is sometimes a great challenge for those taking care of the individual.

Many games involve sex and violence, often in combination and based on role figures. Games can then gain importance because of their artificial intimate and sexual dimensions. The underlying causes of sexual urges, and in particular the sexual urges triggered by gaming, are a particularly sensitive issue.



THE MORAL CHALLENGES OF GAMING AND GAMBLING IN CROSS-CULTURAL SOCIETY

Attitudes towards gaming and gambling might differ considerably from nation to nation and within different parts of a culture. Russian attitudes might be different from those we find in Nordic countries (Kassinove et al. 1998); differences are also evident between, for example, the Chinese subculture in Australia and the mainstream culture in China itself. Several research studies document the importance of culture in gaming and gambling (Loo et al. 2008; Raylu & Oei, 2004).

Differences in attitudes potentially affect how we define addictions, excessive use and unacceptable patterns of gaming and gambling. In-depth studies of gender differences and patterns of use illuminate such attitudes and have revealed similarities between different nations and ethnic groups (Ko et al. 2005a and b). Approaches to treatment, as well as possible diagnostic tools, need to be adapted with reference to the cultural dimension (Ariyabuddhipongs & Chanchalermporn, 2007). Superstition and ideas which might seem irrational in terms of Western perceptions need to be recognized in order to understand gaming and gambling patterns in various cultures (Huang & Teng, 2009). Ethnic sub-cultures also present a challenge, because gaming and gambling practices might differ from those in the majority society. The study "Mahjong Gambling in the Chinese Australian Community in Sidney" illustrates gambling and gambling problems not visible in the rest of society. Nevertheless, within the Chinese community the problems connected with this gambling are a major challenge and concern (Zheng et al. 2010). Similar studies from other parts of the world describe the same phenomena (Papineau, 2005).

CONCLUDING REMARKS

The elderly population, public health sector and social workers all experience many challenges understanding the varying consequences of gambling. Addiction or excessive use is a borderless challenge with grave consequences for social functioning, interaction, health and economy. The moral dimensions of gambling also need addressing. Shame, public stigma and guilt connected with compulsive gambling are an important concern. Shame and guilt in particular are due to loss of money, social status and career, and in such cases gambling, often in addition to other problems, affects not only the individual but also the family and other close relatives.

Consideration should be given to expanding preventive activities for adults, and especially for the elderly; often they are ordinary computer users who do not realise how fast they can become addicted, or become victims of gambling

The public health and social work sectors have a responsibility of caring for vulnerable groups. Our focus in this article has been on a vulnerable group — the elderly. Vulnerable groups such as the elderly need special attention and protection. Such protection requires proactive cooperation between public health coordinators and social workers, families and health services in the communities.

REFERENCES

- Abbott, M. W. (2020). Gambling and gambling-related harm: recent World Health
 Organization initiatives, Public Health,
 https://doi.org/10.1016/j.puhe.2020.04.001
- Abbott, M. W. (2020). The changing epidemiology of gambling disorder and gambling-related harm: public health implications. Public Health. https://doi.org/10.1016/j.puhe.2020.04.003
- American Psychiatric Association (APA) (2018). Diagnostic and statistical manual of nmental disorders (5th edition). DSM IV. Washington DC: American Psychiatric Association.
- Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., Sakamoto, A. et. al. (2010). Violent video game effects on aggression, empathy, and prosocial behaviour in eastern and western countries: A meta-analytical review. Psychological Bulletin, 136. pp. 151–173.
- Ariyabuddhipongs, V. & Chanchalermporn, N. (2007). A test of social cognitive theory, reciprocal and sequential effects. Hope, superstitious belief and environmental factors among lottery gamblers in Thailand. Journal of Gambling Studies, 23. pp. 201–214.
- Begun, A. L & Murray, M. M. (2020). The Routledge Handbook of Social Work and Addictive Behaviors. New York.
- Berkman B, Silverstone B, June Simmons W, Volland PJ, Howe JL. Social Work Gerontological Practice: The Need for Faculty Development in the New Millennium. J Gerontol Soc Work. 2016 Feb-Mar;59(2):162–77. doi: 10.1080/01634372.2016.1169845. PMID: 27135560.
- Bjelde, K., Chromy, B., & Pankow, D. (2008). Casino gambling among older adults in North Dakota: A policy analysis. Journal of Gambling Studies, 24(4), 423–440. doi:10.1007/s10899-008-9102-z
- Black, D.W., Allen, J. An Exploratory Analysis of Predictors of Course in Older and Younger Adults with Pathological Gambling: A Non-Treatment Sample. J Gambl Stud (2021). https://doi.org/10.1007/s10899-021-10003-8

- Boellstroff, T. (2008). Coming of age in second life: an anthropologist explores the virtually human. Princeton: Princeton University Press.
- Boellstroff, T., Nardi, B., Pearce, C. & Taylor, T. L. (2012). Ethnography and Virtual Worlds A Handbook of Methods. Princeton: Princeton University Press.
- Borchgrevink, Aage (2014). Anders Behring Breivik and the Massacre at Utøya. London: Polity.
- Brunborg, G.S., Mentzoni, R. A., Melkevik, O.R., Torsheim, T., Samdal, O., Hetland, J., et. al. (2013). Gaming Addiction, Gaming Engagement, and Psychological Health Complaints among Norwegian Adolescents. Media Psychology 16(1). pp. 115–128.
- Cambell, F., Simmond, C. & Lester, D. (1998). The impact of gambling on suicidal behaviour in Lousiana. Omega, 38. pp. 235–239.
- Carroll, D. & Huxley, J. A. (1994). Cognitive, dispositional and psychophysiological correlates of dependent slot machine gambling in young people. Journal of Applied Social Psychology, 24. pp. 1070–1083.
- Cole, H. & Griffiths, M. D. (2007). Social Interaction in Massively Multiplayer Online Role-Player Gamers. CyberPsychology & Behavior, 10(4). pp. 575–583.
- Costes J.-M., Kairouz S., Eroukmanoff V. & Monson E. (2015). Gambling Patterns and Problems of Gamblers on Licensed and Unlicensed Sites in France. J Gambl Stud. 10.1007/s10899-015-9541-2
- Criminal Police of Slovakia. (2015). Report of the crime committed by the seniors in the Slovakia. https://www.employment.gov.sk/ files/slovensky/ministerstvo/rada-vladysr-prava-seniorov/zasadnutie-23-11.2015/ bod-c.1/material-k-bodu-c-1-mv-sr.pdf, Downloaded September 2019.
- Crusser, S. M., Thalemann, R. & Griffits, M. D. (2007). Excessive computer game playing: Evidence for addiction and aggression? Cyberpsychology & Behavior, 10. pp. 290–292.





- Cunningham-Williams, R.M., Cottler, L.B., Compton, W.M & Spitznagel, E. L. (1998). Taking chances: Problem gamblers and mental health disorders Results from the St. Louis epidemiological catchment area study. American Journal of Public Health, 88. pp. 1093–1096.
- Dąbrowska, K. & Wieczorek, L. (2020).

 Perceived social stigmatisation of gambling disorders and coping with stigma.

 Nordic Studies on Alcohol and Drugs 2020, Vol. 37(3) pp. 279–297 https://doi. org/10.1177%2F1455072520902342
- Dowling, I. A. N., Merkouris, S.S., Greenwood, C. J., Olderhof, E, Thoumbourou, J.W., Youssef, G. J. (2016). Early risk and protective factors for problem gambling: A systematic review and meta-analysis of longitudinal studies. *Clinical Psychology Review*. Vol 51, pp 109–124 https://doi.org/10.1016/j.cpr.2016.10.008
- Erstad, O. (2004). På sporet av den digitale kompetanse. Oslo: Universitetsforlaget. Published in Norwegian, translated title; "On track of digital competency".
- Erstad, O. (2010). Educating the digital generation: exploring media literacy for the 21st century. Digital kompetanse Nordic journal of digital literacy (1), pp. 56–72.
- Etuk, R., Shirk, S.D., Grubbs, J. et al. (2020). Gambling Problems in US Military Veterans. Curr Addict Rep 7, pp. 210–228. https://doi. org/10.1007/s40429-020-00310-2
- Eurostat. (2019). Data of population aging and seniors. Available at: https://ec.europa.eu/eurostat/data/database
- Ferentzy, P. & Skinner, W. (2003). Gamblers Anonymous: A critical review of the literature. Journal of Gambling Issues, 9. doi: 10.4309/jgi.2003.9.9.
- Ferentzy, P., Skinner, W. & Antze, P. (2003). Gamblers Anonymous and the disease conception of problem gambling. International Journal of Self-help & Self Care.
- Ferentzy, P., Skinner, W. & Matheson, F.I. (2013). Illicit Drug Use and Problem Gambling. International Scholarly Research Notices, ISRN Addiction.
- Flataen, Ø., Torp, S. & Aarseth, E. (2010). Ungdommers opplevelse med overdreven

- bruk av onlinespillet World of Warcraft. Tidsskrift for ungdomsforskning, 10(2). Published in Norwegian, translated title; "Juveniles experience with excessive playing of World of Warcraft". pp. 57–78.
- Fong T. W. (2005). The biopsychosocial consequences of pathological gambling. *Psychiatry (Edgmont (Pa.: Township))*, 2(3), 22–30.
- Granero, R., Jiménez-Murcia, S., Fernández-Aranda, F., Del Pino-Gutiérrez, A., Mena-Moreno, T., Mestre-Bach, G., . . . Menchón, J. (2020). Contribution of stressful life events to gambling activity in older age. Ageing and Society, 1–25. doi:10.1017/S0144686X20001592
- Griffiths, M. D. & Wood, R.T.A. (1999). Lottery Gambling and Addiction: an overview of European research. Lausanne: Association of European Lotteries.
- Hing, N., Holdsworth, L., Tiyce, M., Breen,
 H. (2014). Stigma and problem gambling:
 Current knowledge and future research
 directions. International Gambling Studies,
 14, 64–81. doi:10.1080/14459795.2013.841722
- Hodgins, S. & Janson, C. G. (2012). Criminality and violence among the mentally disordered: The Stockholm Project Metropolitan. Cambridge Studies in Criminology. Cambridge: Cambridge University Press.
- Hofmarcher, T., Romild, U., Spångberg, J. *et al.*The societal costs of problem gambling in
 Sweden. *BMC Public Health* 20, 1921 (2020).
 https://doi.org/10.1186/s12889-020-10008-9
- Huang, L. S. & Teng, C. L. (2009). Development of Chinese superstitious belief scale.Psychological Reports, 104. pp. 807–819.
- Jonsson, J. (2003). Stöd och hjälp till spelberoendes anhöriga. Rapport nr. 2002:23. Stockholm: Statens Folkhälsoinstitut.. Published in Swedish, translated title; « Support and self-help for the families of compulsive gamblers».
- Kammerl, R, et.al (2012). EXIF Exzessive Internetnutzung in Familien. Berlin: Bundesministerium für Familie, Senioren, Frauen und Jugend.
- Kassinove, J. I., Tsytsarev, S. V. & Davidson, I. (1998). Russian attitudes towards gambling.

- Personality and Individual differences, 24. pp. 41–46.
- Ko, C.H., Yen, J.Y., Chen, C.C., Chen, S.H., & Yen, C.F. (2005 a). Gender Differences and Related Factors Affecting Online Gaming Addiction Among Taiwanese Adolescents. The journal of Nervous and Mental Disease, 193(4). pp. 273–277.
- Ko C.H., Yen J.Y., Chen C.C., Chen S. H. & Yen C. F. (2005 b). Proposed diagnostic criteria of Internet addiction for adolescents. Journal of Nervous and Mental Disease,193 (11), pp. 728–33.
- Kovács, I., Pribék, I. K., Demeter, I. Róysa, S., Janka, Z., Demetrovics, Z. & Andó, B. (2020). The personality profile of chronic alcohol dependent patients with comorbid gambling disorder symptoms. Comprehensive Psychiatry Volume 101 (2020), pp. 152–183. https://doi.org/10.1016/j. comppsych.2020.152183
- Landreat, G. M., Cholet, J., Grall Bronnec, M., Lalande, S., & Le Reste, J. Y. (2019). Determinants of Gambling Disorders in Elderly People-A Systematic Review. Frontiers in psychiatry, 10, 837. https://doi.org/10.3389/ fpsyt.2019.00837
- Loo, J. M. Y., Raylu, N. & Oei, T. P. S. (2008). Gambling among the Chinese: a comprehensive review. Clinical Psychology Review, 28. pp. 1152–1166.
- Lynch, W.J., Maciejewski, P. K. & Potenza, M.N. (2004). Psychiatric correlates of gambling in adolescents and young adults grouped at gambling onset. Archives of General Psychiatry, 61. pp. 1116–1122.
- Matheson, F. I., Sztainert, T., Lakman, Y., Steele, S. J., Ziegler, C. P. & Ferentzy, P. (2018).

 Prevention and Treatment of Problem
 Gambling Among Older Adults: A Scoping
 Review. Journal of Gamling Issues, Vol. 39.
 pp. 6–67 DOI: http://dx.doi.org/10.4309/jgi.2018.39.2
- Meyer, J. (2008). Mennesker med utviklingshemning og sosial kapital. Oslo: Universitetsforlaget. Published in Norwegian, translated title; "People with mental retardation and social capital".

- Myrseth, H., Brunborg, G., Eidem, M., & Pallesen, S. (2013). Description and pre-post evaluation of an internet-based treatment program for pathological gambling in Norway. International Journal of Gambling Studies, 13(2). pp. 205–220.
- Overå, S. & Weihe, H.-J. Wallin. (2016). Spillavhengighet. Gaming and Gambling. Stavanger: Hertervig Akademisk. Published in Norwegian, translated title: «Gaming addiction. Gaming and Gambling.»
- Padilla-Walker, L.M., Nelson, L. J., Carroll, J. S. & Jensen, A. C. (2010). More than just a game: Video game and internet use during emerging adulthood. Journal of Youth and Adolescent, 39. pp. 103–113.
- Papineau, E. (2005). Pathological gambling among Montreals Chinese community an anthropological perspective. Journal of Gambling Studies, 21. pp. 157–178.
- Pastwa-Wojciechowska B. (2011). The relationship of pathological gambling to criminality behavior in a sample of Polish male offenders. *Medical science monitor:* international medical journal of experimental and clinical research, 17(11), CR669–CR675. https://doi.org/10.12659/msm.882054
- Peters, S. D. & Malesky, L. A. (2008).

 Problematic Usage Among Highly —
 Engaged Players of Massively Multiplayer
 Online Role-Playing Games. Cyber
 Psychology & Behaviour, 11(4).
 pp. 481-484.
- Rash, C. J., Weinstock, J., & Van Patten, R. (2016). A review of gambling disorder and substance use disorders. *Substance abuse and rehabilitation*, 7, 3–13. https://doi.org/10.2147/SAR.S83460
- Raylu, N. & Oei, T. P. (2004). Role of culture in gambling and problem gambling. Clinical Psychological Review, 23 (8). pp. 1087–1114.
- Reith, G. & The Scottish Centre for Social Research (ScotCen). (2006). Research on the social impacts of gambling final report. Scottisch Executive Social Research.
- Roberts, A., Rogers, J., Sharman, S., Melendez-Torres, G.J. & Cowlishaw, S. (2021). Gambling problems in primary care: a systematic review and meta-analysis,





- Addiction Research & Theory, DOI: 10.1080/16066359.2021.1876848
- Rogers, P. (1998). The cognitive psychology of lottery gambling: A theoretical review. Journal of Gambling Studies, 15. pp. 111–133.
- Scharlach, A., Damron-Rodriguez, J.A, Robinson, B. & Feldman, R. (2014). Educating Social Workers for an Aging Society, Journal of Social Work Education, 36:3, 521–538, DOI: 10.1080/10437797.2000.10779026
- Sharman, S. Butler, K. & Roberts, A. (2019).

 Psychosocial risk factors in disordered gambling: A descriptive systematic overview of vulnerable populations. Addictive
 Behaviors Vol.99. https://doi.org/10.1016/j. addbeh.2019.106071
- Stockmann, R. & Jahn-Sudmann, A. (2008).
 Computer games as a sociocultural
 phenomenon: games without frontiers,
 war without tears. Basingstoke: Palgrave
 Macmillan.
- Subramaniam, M., Wang, P., Soh, P., Vaingankar, J. A, Chong S. A, Browning C.J. (2015). Prevalence and determinants of gambling disorder among older adults: a systematic review. Addict Behav (2015) 41:199–209. 10.1016/j.addbeh.2014.10.007
- Tani, F. Ponti, L., Ghinassi, S. & Smorti, M. (2021). A gambling primary prevention program for students through teacher training: an evidence-based study. International Gambling Studies. DOI: 10.1080/14459795.2020.1861056
- Telegraph (2013). Adam Lanza: a fiercely intelligent killer. http://www.telegraph.co.uk/news/worldnews/northamerica/usa/9747682/Connecticut-school-shooting-troubled-life-of-Adam-Lanza-a-fiercely-intelligent-killer.html (Downloaded 15/1 2020).
- Tse, S., Hong, S.I., Wang, C.W., & Cunningham-Williams, R.M., (2012). Gambling behavior and problems among older adults: a systematic review of empirical studies. Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 67 (5), 639–652, doi:10.1093/geronb/gbs068.
- Tsamakis, K., Tsiptsios, D., Ouranidis, A., Mueller, C., Schizas, D., Terniotis, C. ... Rizos,

- E. (2021). COVID19 and its consequences on mental health (Review). Experimental and Therapeutic Medicine, 21, 244. https://doi.org/10.3892/etm.2021.9675
- Uwiduhaye, M.A., Niyonsenga, J., Muhayisa, A. et al. Gambling, Family Dysfunction and Psychological Disorders: A Cross- Sectional Study. J Gambl Stud (2020). https://doi.org/10.1007/s10899-020-09986-7
- van der Maas, M., Mann, R. E., Matheson, F. I., Turner, N. E., Hamilton, H. A., & McCready, J. (2017). A free ride? An analysis of the association of casino bus tours and problem gambling among older adults. *Addiction*, 112, 2217–2224. https://doi.org/10.1111/add.13914.
- Vander Bilt, J., Dodge, H. H., Pandav, R., Shaffer, H. J., & Ganguli, M. (2004). Gambling participation and social support among older adults: A longitudinal community study. Journal of Gambling Studies, 20(4), 373–390. Retrieved from http://dx.doi.org/10.1007/s10899-004-4580-0
- Visontay R, Rao RT, Mewton L. Alcohol use and dementia: new research directions. Curr Opin Psychiatry. 2021 Mar 1;34(2):165–170. doi: 10.1097/YCO.00000000000000679. PMID: 33394727.
- von der Heiden, J. M., Braun, B., Müller, K. W., & Egloff, B. (2019). The Association Between Video Gaming and Psychological Functioning. Frontiers in psychology, 10, 1731. https://doi.org/10.3389/fpsyg.2019.01731
- Wang, Y.-L, Hou, H-T & Tsai, Ch-Ch. (2020).

 A systematic literature review of the impacts of digital games designed for older adults, Educational Gerontology, 46:1, 1–17, DOI: 10.1080/03601277.2019.1694448
- World Health Organisation, WHO. (2018).

 Addictive behaviours: Gaming disorder.

 https://www.who.int/news-room/q-a-detail/
 addictive-behaviours-gaming-disorder
- Williams, D., Yee, N. & Caplan, S. E. (2008). Who plays, how much, and why? Debunking the stereotypical gamer profile. Journal of computer-mediated communication, 13. pp. 993-1018.
- Zhang, F., & Kaufman, D. (2016). Older Adults' Social Interactions in Massively Multiplayer Online Role-Playing Games (MMORPGs).

Games and Culture, 11(1-2), 150-169. https://doi.org/10.1177/1555412015601757

Zheng, W; Walker, M. & Blaszcynski, A. (2010).
Mahjong gambling in the Chinese Australian community in Sydney. A prevalence study.
Journal of Gambling Studies, 26. pp. 441-454.
Yee, N. (2009). Data on Player Lifecycle: The

Yee, N. (2009). Data on Player Lifecycle: The Daedalus Project. 1. march. http://www.

nickyee.com/daeddalus/archives/001646.php (Lest 2019).

Yee, N. (2007 a). Motivations of Play in Online Games. Journal of CyberPsychology and Behavior, 9. pp. 772–775.

Yeoman, T. & Griffiths, M. (1996). Adolescent Machine Gambling and Crime. Journal of Adolescence. 19. pp. 99–104.



Miroslava Tokovska

School of Health Sciences, Kristiania University College Prinsens gate 7–9, 0152 Oslo, Norway ORCID ID: 0000-0002-8279-3168 miroslava.tokovska@kristiania.no

Michal Kozubik

Department of Social Work and Social Sciences, Constantine the Philosopher University in Nitra Trieda Andreja Hlinku 1, 949 01 Nitra, Slovakia ORCID ID: 0000-0002-8270-5500 mkozubik@ukf.sk

Andrea Seberini

Department of Economy, Matej Bel University in Banska Bystrica Tajovskeho 10, 975 90 Banska Bystrica, Slovakia ORCID ID: 0000-0002-8531-1611 andrea.seberini@umb.sk

Hans-Jørgen Wallin Weihe

Faculty of Education,
Lillehammer University College
Inland Norway University of Applied Sciences
Vormstuguvegen 2, 2624 Lillehammer, Norway
ORCID: 0000-0002-2942-5083
h-j.wallin.weihe@inn.no