



# PANEL SPEAKERS



# The Comorbidity of Internet Gaming Disorders

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**Introduction:** Internet gaming disorders (IGD) are defined by continuous and repeated involvement with video games, often leading to significant daily, work and / or educational disruptions and has been suggested by America Psychiatric Association (APA) as a tentative psychiatric disorder that requires further study. IGD is an increasingly common type of addiction in the new world. The prevalence rate of IGD was 0.8% in the United States and European countries. On the other hand, the prevalence rate of 13.8% yielded by a previous Korean study. Comorbidity with psychiatric diseases is high. When faced with IGD, additional psychiatric disorders should be considered.

**Method:** In this session, the comorbid psychiatric disorders will be discussed. A growing body of research suggests that gaming disorders are associated with several other mental health disorders, including depression, anxiety, problematic substance use, and

personality disorders. Regarding psychiatric comorbidities, some studies have reported no differences in the prevalence of alcohol use disorder between problematic game users and usual users; however, illicit drug use is prevalent in problematic game users. Of the numerous psychiatric comorbidities of IGD, attention-deficit/hyperactivity disorder (ADHD) is considered the most frequent, due to its prevalence and conceptual overlap. It is identified as the shared features of impulsivity and hostility in ADHD and IGD.

**Results:** A preventive strategy for IGD and problematic game use is needed for game users who are more likely to be addicted, such as younger male users. In addition, mental health screening and appropriate treatment for both game addiction and comorbid psychiatric disorders should be provided to individuals with IGD and problematic game use.

# The Science of Food Addiction: Implications for Obesity and Public Health

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The concept of food addiction has gained increasing scientific attention as researchers explore the parallels between highly processed foods and addictive substances. While traditional models of obesity emphasize caloric intake and metabolic dysfunction, emerging evidence suggests that ultra-processed foods (UPFs) rich in sugar, fat, and refined carbohydrates can trigger neurobiological responses similar to drugs of abuse. This presentation reviews the current scientific literature on food addiction, with a focus on neuroimaging, behavioral, and clinical studies.

Neurobiological research, including PET and fMRI studies, has demonstrated that hyper-palatable foods activate the brain's dopamine reward system, similar to substances like nicotine and alcohol. Chronic exposure to these foods may lead to downregulation of dopamine receptors, increased compulsive consumption, and withdrawal-like symptoms upon restriction. Behavioral studies further support this model, with individuals meeting criteria for food addiction displaying patterns of craving, loss of control, and continued consumption despite negative consequences—hallmarks of substance use disorders.

The public health implications of food addiction are substantial, given the global rise in obesity and diet-related diseases. Understanding the addictive properties of UPFs challenges conventional dietary guidelines and suggests the need for policy interventions, such as food reformulation, taxation of high-risk products, and restrictions on marketing to vulnerable populations. Additionally, treatment approaches traditionally used for addiction, including cognitive-behavioral therapy and pharmacological interventions targeting dopamine signaling, may hold promise for individuals struggling with compulsive overeating.

This presentation will critically examine the strengths and limitations of the food addiction model, address ongoing debates in the field, and discuss its potential role in shaping future obesity prevention and treatment strategies. Recognizing the addictive nature of certain foods may be key to developing more effective public health policies and clinical interventions.

# Game Rating Systems and a Quest for “Child Friendly Game Information System”

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Video game content rating systems are a set of guidelines used to determine the appropriate age and content level for video games, which vary in purpose, initiative, and actor, such as the professional goals of the gaming industry, legal requirements of governments, or civil society efforts. Given the increasing number of players and video games each year, rating systems, such as the smart labels (age classification) used in the television and movie industry, are important and necessary to inform players and prevent potential harm, especially for children, by classifying games according to age. Digital game content ratings are a fundamental need for both educators and parents in guiding child gamers under the age of 18 (2023), who constitute 20% of the gaming market, educators, policy makers, industry professionals and parents in choosing video games.

Classifications made by considering the content that is inappropriate for children, such as violence, pornography, sexual themes, drug use, use of medications, profanity, insults, etc., vary from country to country. When dimensions such as culture, belief, ideology and the world of values are taken into consideration, although there are many dimensions to be discussed and emphasized, the classification and rating of games according to age is much more important, especially for children, as it may have irreparable harmful consequences in terms of physical and mental health.

The question of what can be done at the country level or internationally becomes even more important when considering the criteria developed specifically for digital games and the differences in how games are classified according to these criteria, in relation to age-appropriate or rating systems that serve as informative and advisory guidance on the type of content a television program, a movie, or a game contains, whether it carries harmful content, and which age group is suitable to watch or play it. Considering that digital games can cause irreparable harm when it comes to children, it is clear that the age-appropriateness rating criteria and content regulation of digital games, with their varying applications from country to country, deserve to be one of Türkiye’s agenda items. In this context, when looking at the situation in Türkiye, it is difficult to say that the rating of games has been sufficiently discussed and studied, both at the academic level and in terms of practical application. Most importantly, Türkiye does not have a developed game rating system.

Looking at the literature in the field, Türkiye does not yet have a developed game rating system, although the first studies on this issue were brought to the agenda at an early date (2008) in the reports issued by public institutions. Therefore, in this presentation, the existing rating systems developed and in use for digital games, especially video games, will be discussed, and

the importance and necessity of Türkiye developing its own rating system will be emphasized by considering the diversity in rating systems that play an important role in the global gaming industry. The need for

establishing a Digital Game Rating System that considers ‘child-friendly games’ and ‘the well-being of the child’ will be raised as a call, and attention will be given to what can be done to address this need.

# Gaming Disorder Diagnosis and Treatment in Children and Adolescents

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**Introduction:** Digital games have been in our lives at an increasing rate since the 1990s. In the following years, it has been determined that these games may have possible adverse effects. In recent years, gaming disorder (GD) has gained recognition as a significant mental health concern among children and adolescents. In 2013 The American Psychiatric Association included Internet Gaming Disorder as a potential diagnosis, highlighting the need for further research to clarify its etiology and diagnostic criteria. Gaming disorder is defined in the 11th Revision of the International Classification of Diseases (ICD-11) as a pattern of digital or video gaming behavior. Especially in children and adolescents, recognizing this condition and the correct guidance afterward is of great importance. In addition, the treatment process in the child and adolescent age group is another important issue.

**Method:** Literature data on the subject published in Pubmed/Medline, Scopus, and Web of Science databases since 2010 were scanned.

**Results:** The literature shows us there is still controversy among clinicians and researchers as to how the diagnosis should be made. It was noteworthy that scales addressing different criteria were particularly prominent in the diagnosis of GD. The distinction between ‘hazardous gaming’ and GD is also one of the issues investigated in the literature. Although there is no treatment algorithm for the treatment of GD in children and adolescents, cognitive behavioral therapy and treatment of comorbidities are recommended. However, the literature on the treatment of GD, especially under 12 years of age, is limited.

**Conclusions:** It is particularly important to diagnose GD during childhood and adolescence when play is an important part of life. For this reason, it is of great importance to develop diagnostic criteria appropriate to the characteristics of the child and adolescents and treatment modalities appropriate to the age period.

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[PS-5]

# Gaming, Social Media, and the Stolen Childhood: A Developmental Perspective

**Norharlina Bahar**

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Gaming and social media have redefined childhood and adolescence, shaping learning, creativity, and social connections. However, problematic digital media use can disrupt essential developmental processes, particularly in vulnerable populations struggling with impulse control, self-regulation, and social skills. This is not merely a child's issue but a relational one that evolves as children grow.

This presentation explores the cognitive and behavioral impact of digital media across different developmental stages, emphasizing how childhood experiences are being reshaped in the digital age. As children transition into adolescence, greater

autonomy and peer influence shift the dynamic, making self-regulation and identity formation critical concerns. This presents new challenges for parents, requiring them to adapt alongside their children.

By examining these developmental differences and their relational impact, this presentation highlights the need for tailored strategies that evolve with children. Understanding how digital media shapes both individual growth and family dynamics fosters a balanced approach that preserves childhood while preparing adolescents for responsible digital engagement.

# Adolescent Risk Behaviors in the South Mediterranean Region: Insights from the MedSPAD Survey in North Africa and the Middle East

**Elisa Benedetti** 

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In recent years, research on adolescent risk behaviours, particularly gambling, gaming, and social media use, has surged significantly. This trend has been driven by the rapid increase in Internet use, especially in Africa and the Middle East, where, however, research in this field remains scarce.

For the first time, the MedSPAD survey provides unique and representative data on these behaviours among adolescent students, offering comparability with their European peers.

With the support of the Council of Europe, MedSPAD — a cross-national, nationally representative, and comparable survey on adolescent risk behaviours — was conducted in Egypt, Lebanon, Morocco, and Tunisia between 2021 and 2022. Inspired by ESPAD, this survey collected data on gambling, gaming, and social media use from approximately 50,000 adolescent students.

The MedSPAD results reveal that despite gambling being prohibited for citizens, 17% of students report

gambling in the past year, compared to one-fifth of adolescents in Europe. Offline gambling and card/dice games are the most common forms. Furthermore, 2% of students have been identified as at-risk gamblers, while 3% as problem gamblers.

Both the prevalence and intensity of social media use appear lower than in Europe. However, a higher percentage of students exhibit problematic behaviour. Similarly to Europe, 43% of students reported using video games during the week, with a significant proportion perceiving their usage as problematic.

MedSPAD has provided highly needed data, revealing that, despite differing socio-cultural contexts, these behaviours are also widespread among North African and Middle-East adolescents. Notable differences emerge in comparison to Europe, offering essential evidence for professionals to tailor and adapt prevention efforts.

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[PS-9]

# Exploring Recent Findings in Compulsive Sexual Behaviors Research

**Beáta Bóthe** 

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Compulsive sexual behaviors (CSBs) research has expanded significantly in the past two decades, culminating in the inclusion of Compulsive Sexual Behavior Disorder as a new diagnosis in the 11<sup>th</sup> edition of the International Classification of Diseases. However, most prior work in the field was characterized by simplistic methodological designs and often lacked quality measurements and theoretical integration. Typically, these prior studies relied on homogenous, relatively small samples (e.g., men or university students) from WEIRD (Western, Educated, Industrialized, Rich, and Democratic) countries, resulting in significant knowledge gaps concerning culturally-, sexually-, and gender-diverse

individuals. The overarching objective of this presentation is to offer insights into CSBs from a cross-cultural angle, considering gender- and sexual-orientation-related differences. It will overview findings from recent state-of-the-art large-scale, cross-cultural, and artificial intelligence-based studies, placing emphasis on assessment-related issues, risk and protective factors, and potential outcomes of CSBs. This presentation aims to offer insights for enhancing the theoretical understanding of CSBs and identifying potential targets for prevention and intervention programs, with a special focus on populations that are underserved and underrepresented in CSBs research and care.

# New Risks and Challenges in Behavioral Addictions (Gaming, Gambling, or Social Media)

Sari Castrén 

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As we navigate the ever-evolving landscape of behavioral addictions, we encounter a convergence of gaming and gambling that presents new challenges and risks. This intersection, where gaming mechanics increasingly incorporate gambling-like elements such as loot boxes and in-game betting, raises concerns about addictive behaviors across diverse demographics.

While research indicates that individuals may experience these risks differently, it is crucial to address the broader implications for all users. Adolescents,

in particular, are vulnerable as they may struggle to differentiate between entertainment and harmful use (addiction), leading to potential disruptions in their social and academic lives.

Our focus should be on developing comprehensive strategies that promote digital literacy and informed choices, helping individuals navigate these digital spaces safely and healthily. Through targeted education and policy-making, we can work towards mitigating the impact of these behavioral addictions and fostering a balanced approach to digital engagement.

# “Improving Me” Group Intervention Programs for Internet-Based Addiction Symptoms

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Today, the need for secondary prevention and intervention efforts targeting young people at risk of internet-related addictions is growing steadily, especially for group-based programs alongside individual interventions. In this context, a series of intervention and support programs that can be implemented by school psychological counselors were developed through program development process, in collaboration and coordination with the General Directorate of Special Education and Guidance Services under the Ministry of National Education. Two of the programs are 10-session “Improving Me” group intervention programs aimed at middle and high school students identified as at-risk due to symptoms of internet-related addiction. The first four sessions focus on raising awareness of addiction symptoms, reviewing existing internet usage patterns, linking internet usage motivations to underlying needs, and evaluating behaviors related to internet use to promote self-regulation. The subsequent fifth and sixth sessions aim to enable students to take action by creating and implementing an action plan for change in their current internet use patterns and behaviors, as well as to support efforts to shift their thinking styles related to internet use. The sessions following the first six are intended to promote and sustain

the students’ behavioral changes through empowering activities focused on building life skills. In this context, the three sessions prior to the final session were designed in a modular structure. Seven modules (Peer Influence, Emotion Regulation, Coping with Stress, Self-Awareness and Acceptance, Problem Solving, Time Management, Enhancing Hope) were developed based on the anticipated needs of students in the risk group. During implementation, it is expected that three of the seven modules will be selected based on the developmental needs of the group members, the common needs of the majority, and the nature of their change in internet use, and will be used as the content of the seventh, eighth, and ninth sessions. The seven empowering modules can also be added optionally, and the number of sessions can be increased. In addition, during the program development process, group support programs were created for parents (5 sessions) and teachers (3 sessions), with the aim of indirectly supporting the effectiveness of the group intervention programs. Program development studies, in-service practitioner trainings, and implementation results demonstrated that these programs can be effectively used within the context of preventive guidance services in schools.

# Intervention, Treatment, and Recovery in Gambling Disorder: Insights from the YEDAM Model

**Dilara Demircan** 

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Gambling disorder is a behavioral addiction characterized by persistent and recurrent problematic gambling behavior, leading to significant impairment in personal, social, and financial domains. Individuals experiencing gambling disorder often struggle with cognitive distortions, emotional dysregulation, and impaired decision-making, which contribute to the maintenance of their gambling behavior. Given the severe consequences associated with this disorder, effective intervention and treatment strategies are essential for supporting affected individuals and facilitating long-term recovery.

The YEDAM Model integrates evidence-based practices to provide holistic and individualized support for individuals experiencing gambling disorder. This model incorporates cognitive-behavioral approaches, motivational interviewing, and psychoeducational interventions, with a strong emphasis on self-regulation, cognitive restructuring, and emotional regulation. In addition to addressing individual psychological factors, the model also acknowledges the

critical role of social influences in the recovery process. Factors such as stigma and social support play a significant role in shaping an individual's motivation and ability to maintain abstinence from gambling-related behaviors.

This presentation will highlight the importance of intervention, tailored treatment plans, and long-term support mechanisms in gambling disorder treatment. By discussing data and insights from YEDAM's implementation, it will provide an overview of how structured interventions can contribute to sustained recovery.

By presenting the YEDAM Model and discussing relevant data, this presentation aims to contribute to the broader discourse on gambling disorder treatment and recovery. It will offer valuable perspectives for clinicians, researchers, and policymakers seeking to enhance intervention strategies, reduce gambling-related harm, and improve treatment outcomes for individuals affected by gambling disorder.

# Cross-sectional and Longitudinal Associations Between Problematic Pornography Use and Body Dissatisfaction in a Nationally Representative Sample of Young Hungarian Adults

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This study examined the associations between problematic pornography use and body dissatisfaction cross-sectionally and longitudinally in a representative sample of Hungarian young adults. In the present study we performed an autoregressive cross-lagged analysis with a multi-group approach with 2801 individuals ( $M_{age} = 28$  years,  $SD = 4.75$ , 47.69% men and 52.30% women). Problematic pornography use was cross-sectionally associated with higher body dissatisfaction among men and women. In addition, longitudinally, the findings demonstrated a bidirectional association, with higher levels of problematic pornography use predicting greater body dissatisfaction

one year later, and higher body dissatisfaction similarly predicting increased problematic pornography use. Given this bidirectional associations, clinicians should address problematic pornography use and body dissatisfaction together in the treatment such as by focusing on body dissatisfaction symptoms alongside decreasing problematic pornography use may increase the effectiveness of the treatment for men and women.

**Keywords:** problematic pornography use, body dissatisfaction, longitudinal design, adults

# Internet Gaming Disorder and the Transition to Gambling Disorder

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First, the definition of IGD will be made and the place of this disorder in the DSM-5 diagnostic system will be explained. It will be emphasized that IGD is seen especially in online games based on the reward mechanism and that it creates negative effects on impulse control, reward addiction and psychosocial functioning in individuals. Then, the factors affecting the transition from IGD to GD will be emphasized. Neurobiological similarities, especially common activations in the dopaminergic system and the reward expectation cycle will

be detailed. Behaviorally, it will be explained that elements such as loot boxes, micropayments and chance-based rewards used in games can pave the way for gambling behavior. Psychosocial factors affecting this transition process will be examined. It will be discussed how individuals' stress, depression and anxiety levels and social isolation can direct gambling behavior. In addition, awareness, regulatory policies and therapy approaches will be included for the prevention of this process and early intervention.

# Sports Gambling in the 21st Century: Insights and Challenges

Joshua Grubbs 

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Sports gambling is now more accessible than at any other point in history. The development of mobile betting technologies and the proliferation of online sportsbooks globally has led to a widespread expansion in access to and engagement in sports gambling behaviors. At the same time, an ever-growing body of research strongly suggests that sports gambling is distinct from other forms of gambling with regards to the audience participating in this gambling and the potential risks associated with it. The present work will review research from around the globe to discuss the global state of sports gambling. Additionally, results from a three year longitudinal study of sports gamblers in the United States will also be discussed.

In Spring of 2022, over 4,000 American adults were sampled and studied with regards to their sports gambling behaviors. These adults were then followed for three years, assessing a variety of problem gambling behaviors, other addictive behaviors, and overall psychological well-being. Using longitudinal modeling techniques such as latent growth curve modeling, the present work discusses how sports gambling naturally progresses over time, how it relates to other addictive behaviors, and how it relates to problem gambling. The combination of global research and recently collected longitudinal findings in the United States will allow for a number of research, clinical, and regulatory recommendations.

# Game Rating Systems: Reflection of Current Practices on Games through Game Analyses

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Today's video games, with their realism and virtual experience capabilities, have evolved from being merely an entertainment tool into versatile digital platforms that offer new experiences and research environments in various fields, from education to health, art to sports. Thanks to their interactive structures, these contents, which are not solely aimed at passing time, provide players with virtual worlds where they may face moral dilemmas and ethical choices and influence individuals' decision-making processes, value judgments, and approaches to social norms. With the development of digital technologies, the social and cultural impact of video games has increased, transforming into content that gives players a deeper sense of representation and promotes cultural diversity.

Globally, with more than 3 billion active gamers, the video game industry is projected to exceed 260 billion dollars by 2025, with an annual growth rate of between 4% and 6% (Howarth, 2023). Approximately 1 million new games are released annually across all gaming platforms. In Türkiye, there are more than 40 million gamers, and the industry's volume exceeds 1.2 billion dollars (Sayar, 2022, p. 42). In such a widespread and influential domain, protecting child users and providing accurate information to parents is of great importance. At this stage, systems that serve to assess the age appropriateness of video games come to the forefront. The

most widely used systems in the global gaming industry are the Europe-based PEGI (Pan European Game Information) and the US-based ESRB (Entertainment Software Rating Board) systems. However, countries like Germany, Russia, Japan, China, South Korea, and Iran have their own national video game rating systems, which are regulated and implemented according to their specific national norms.

When examining existing video game rating systems, it is observed that they classify games based on content such as "violence," "bad language," "fear," "sexuality," "drugs," "discrimination," "gambling," and "in-game purchases." However, there are differences between the systems in terms of both category names and content filtering processes. In particular, differences in what constitutes harmful or inappropriate content for children under the headings of "sexuality," "religion/beliefs," and "advertisements for the game" support the view that these systems should be specifically regulated for each country.

This study will examine video game rating systems through a few video games, attempting to reveal how these systems classify the games differently based on age and their understanding of childhood. From this point of view, it will contribute to a data-based discussion that will contribute to the development of a "child-friendly" game rating system that considers cultural differences, is transparent and based on ethical foundations.

# The Long and Winding Road to Gambling Disorder Treatment and Recovery

David C. Hodgins 

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**Background:** It is often noted that treatment-seeking rates among people with gambling problems are low. A better understanding of the recovery process might provide clues to structuring treatment options to maximize their impact.

**Methods:** A Canadian national survey of people who gamble regular (N = 10,000) assessed problem gambling status, and details of past year change attempts. A survey of people in treatment (N= 65) obtained descriptions of their trajectories toward recovery.

**Results:** The national survey revealed that a surprisingly large number of people with gambling problems made a serious attempt to change in the year before the survey. Over 90% of those reporting a change attempt indicated that these attempts were

personal (“I did it on my own”) but a significant minority reported that they sought help from family or friends, professionals such as physicians and clergy or specialized gambling treatment services. This presentation will review differences in people’s reasons for choosing different options between people who seek help from different sources, as well as what they find helpful in each option. We will also present information from the treatment study including how individuals learned about their treatment options, their previous treatment experiences, and the trajectories they followed.

**Conclusions:** Our goal is to develop a nuanced understanding of the diverse paths people follow in seeking help for gambling-related issues.

# Gambling Disorder and the Online Betting Boom in Brazil: A Clinical Perspective

Alexandre Kieslich da Silva 

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Gambling disorder (GD) is a behavioral addiction characterized by compulsive gambling that leads to financial, emotional, and social distress. Classified in the DSM-5 as a substance-related and addictive disorder, GD shares neurobiological and psychological mechanisms with substance use disorders. Cognitive distortions, such as the illusion of control and near-miss effects, reinforce compulsive gambling despite severe consequences.

As a psychiatrist specializing in addiction in Brazil, I have witnessed an increasing number of patients struggling with online gambling. Many individuals start gambling recreationally but develop compulsive patterns, accumulating significant debts and experiencing psychiatric comorbidities such as anxiety, depression, and substance use disorders. In my clinical practice, I have treated patients who lost homes, destroyed relationships, and faced legal issues due to gambling-related financial losses. The rapid access to online betting platforms—available 24/7—has made gambling addiction harder to control, especially among young adults.

In recent years, Brazil has seen an explosion in online betting, with 22.4 million Brazilians engaging in gambling. The industry now generates R\$60-100 billion annually, and in 2024, Brazilians lost R\$23.9 billion to online betting. Particularly concerning is the R\$3 billion spent by welfare recipients, highlighting the risks for vulnerable populations.

Treatment for GD should prioritize abstinence, following structured interventions such as cognitive-behavioral therapy (CBT), motivational interviewing, and pharmacological approaches like SSRIs and naltrexone. In my experience, abstinence-focused programs, including self-exclusion measures and peer support groups such as Gamblers Anonymous, have been essential in achieving recovery.

Regulatory measures in Brazil, such as the R\$30 million licensing fee for operators and blocking of 2,000 illegal sites, are crucial but need to be accompanied by public awareness campaigns and stricter gambling restrictions to curb this growing crisis.

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[PS-19]

# Past, Present, and Future of Artificial Intelligence in Addiction Research

**Emmanuel Kuntsche** 

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This presentation provides an overview of artificial intelligence (AI), machine learning, and deep learning, and their application in addiction research. Between 2010 and 2020, machine learning was used in substance use disorder treatment to facilitate diagnosis by classifying patients based on their history or symptom severity, and to predict treatment outcomes, such as smoking relapse. Machine learning also reduced the burden on clinicians by analysing large amounts of complex data and served as an analytic tool for researchers.

A case study will highlight how deep learning can identify alcohol exposure in media, such as song lyrics and online images. Furthermore, the

potential benefits of zero-shot learning will be discussed. This AI technique requires no further training or annotated data, less computer science expertise, and fewer computational resources than developing and fine-tuning a dedicated supervised deep learning algorithm. Zero-shot learning can be applied flexibly to various problems and identify contextual or additional information, though it is often less accurate in distinguishing between similar objects.

In conclusion, AI has been used in addiction research to provide answers at a scale previously impossible, highlighting its enormous potential to solve future challenges and research questions.

# Policy Support for Regulating Digital Media Use to Promote Adolescent Mental Health

Hae Kook Lee 

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Adolescents are especially vulnerable to digital media addiction due to ongoing brain development, making them more susceptible to highly stimulating content such as SNS and short-form videos. Such addiction can negatively affect their mental health, leading to issues like emotional distress and suicidal ideation.

Since the COVID-19 pandemic, adolescent use of these platforms has surged, with AI-driven algorithms amplifying addictive behaviors by endlessly recommending stimulating content. In response, several countries have introduced laws to limit smartphone

use, account creation, and AI algorithm application for youth.

These policies aim to protect the right of adolescents and parents to avoid addictive media use, shifting responsibility to tech companies. However, concerns remain over potential overreach into personal freedoms and corporate interests. As scientific evidence on policy effectiveness is still limited, successful implementation will require both alternative resources for youth, strong regulatory accountability for companies, and further research on policy outcomes.

# The Global Growth of Gambling and Gambling Harm: What We Can Do to Prevent and Reduce the Harms of Gambling

Charles Livingstone 

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Gambling is growing rapidly, at the global and national levels, particularly in low- and middle-income countries. This has been facilitated by the expansion of mobile technology, and by a lack of effective regulation in many countries. Gambling may appear to be an avenue for countries to garner tax revenue, but this is illusory, as the costs of gambling harm are high, and rapidly growing. Mobile gambling is forecast to reach global revenues of \$750 million in 2025, and the most recent estimate indicates that at least 80 million people across the world are experiencing very significant gambling harm, with another 450 million experiencing any harm from gambling.

Gambling harms are significant, ranging from financial disaster to family breakdown, physical and mental health problems, increased crime and imprisonment, and suicide. However, better regulation, international cooperation, adoption of a public health approach, and some specific interventions can prevent and reduce these harms. In this presentation, I will outline the growth of gambling, discuss the nature and evidence for gambling harms, identify effective interventions to prevent and reduce harm, and argue for a cooperative international approach to the prevention and reduction of gambling harm.

# Behavioral Addictions in Gen Z: Trends, Transformations, and Links to Other Risky Behaviors in Europe

Sabrina Molinaro 

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Over the past decades, the landscape of behavioral addictions among adolescents has shifted dramatically, shaped by generational differences and increasing digital exposure. The European School Survey Project on Alcohol and Other Drugs (ESPAD) offers a longitudinal analysis of substance use and behavioral addictions among 16-year-olds across Europe, providing a unique perspective on how each generation—from Gen X to Millennials and now Gen Z—has exhibited its own vulnerabilities to addiction.

While previous generations faced substance-related and gambling behaviors, today's Gen Z adolescents navigate a world where digital and behavioral addictions are deeply intertwined with daily life. The rise of social media, gaming, and digital gambling has created new addictive patterns, fueled by constant online engagement, instant gratification, and social validation mechanisms. As exposure to these stimuli has intensified, so has the prevalence of anxiety-related disorders, highlighting a

shift from risk-taking behaviors toward compulsive coping mechanisms.

ESPAD data suggest that while traditional risky behaviors persist, the way they manifest is evolving. Gen Z appears more cautious in some areas yet highly vulnerable to compulsive digital engagement, anxiety, and emotional distress. Each generation seems to develop its own form of behavioral fragility, shaped by the sociocultural and technological environment of its time.

Understanding these shifts requires rethinking our monitoring and prevention strategies, moving beyond a moralistic approach to adopt a systemic, adaptive framework that accounts for the complex interplay between digital environments and adolescent mental health. As ESPAD continues to track these trends, this study aims to provide critical insights into how generational vulnerabilities evolve and what interventions are needed to address them effectively.

# The Economy of Addiction and Türkiye: The Size, Strategies, and Impacts of the Addiction Economy

Hüseyin Hayri Nuroğlu 

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This study aims to systematically analyze the costs of addictions to Turkey's economy. Turkey's young population, high digital penetration (over 80% smartphone usage), and the illegal gambling market (1.9 trillion TL annually) make evaluating addiction's economic burden critical. Using the Swiss Federal Office of Public Health (BAG, 2017) report and Manthey et al. (2021) meta-analysis, it examines impacts via the Cost of Illness approach.

The BAG report categorizes costs as direct (healthcare, judicial), indirect (productivity losses), and intangible (quality-of-life loss). The study analyzes addiction's burden in four areas: (1) household costs, (2) healthcare costs, (3) social costs, and (4) productivity losses.

Addictions cause serious health issues. Tobacco-related healthcare costs consume 9% of Turkey's health budget, alcohol 2.4%. Behavioral addictions like gambling (2-3% prevalence) and internet addiction (10-15% prevalence, especially youth) burden

healthcare through psychological issues and treatment costs.

Productivity losses arise from premature deaths, absenteeism, and reduced efficiency. Internet and gaming addiction cause academic and workforce losses; 10% of 1.5-2 million youths (15-25) affected means 7.5-15 billion TL lost annually. Social costs include family conflicts, drunk-driving accidents, and judicial burdens.

Lacking comprehensive data on behavioral addictions, the study estimates Turkey's situation using prevalence rates from similar countries (e.g., 5-15% social media addiction) and global literature. Manthey et al.'s (2021) weighting method standardizes estimates by addressing missing data. Economic mechanisms of addictions are also briefly assessed.

The study seeks to quantify addiction's economic cost, providing a data-driven guide for the Ministry of Health and Yeşilay's prevention policies.

# Policy Matters. Why NGOs are Getting Involved in Gambling Policy

**Stig Erik Sørheim** 

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The gambling market in many countries is changing rapidly. Part of the reason is technological developments in the past 15-20 years, but part of it is also related to policy changes that have expanded access to gambling in many markets.

These policy changes have impacted on the size of the gambling market, and the prevalence of gambling related problems. However, policy can also limit the size of the market and reduce the number of people with gambling problems.

There are many similarities between gambling policy and policies that regulate other addictive substances,

such as alcohol and tobacco. Policies on price, availability and advertising are likely to affect the size of the problems in all these fields, but policy changes are also opposed by strong financial interests.

NGOs in many countries have been at the forefront of the issue, identifying the problem, providing help and raising awareness. Going forward, NGOs have an important role, both in awareness raising, as watchdogs, in policy advocacy, as well as in providing services and self-help groups to people who are experiencing gambling problems.

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[PS-25]

# Longitudinal Relationship between Pornography Use and Adolescent Sexuality and Well-being: Insights from the PROBIOPS Project

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The PROBIOPS project is a six-wave, two-sample large-scale longitudinal study of the associations between pornography use in adolescence and a variety of sexuality-related outcomes. It was conducted over three years among an age cohort (15-16-year-olds at baseline) of high school Croatian students from two cities. In the presentation, I intend to present and critically evaluate methodological aspects of the research study and its main results. I will focus on

the prospective findings related to: (1) links between pornography use and adolescents' psychological well-being, (2) empirical testing of the influential Confluence model (N. Malamuth), and (3) the prevalence and stability of problematic pornography use among male adolescents. Study limitations, particularly those related to attrition, will also be addressed. I will conclude with recommendations for future research on pornography use among young people.

# Exercise Addiction: The Roadblock to Clinical Assessment

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Exercise addiction is a widely researched topic as reflected by the over 2000 peer-reviewed and published articles. However, fewer than a dozen clinically significant cases are available in the scholarly literature apart from the 100 internet-based testimonials, potentially qualifying for clinical diagnosis, we reported in a content analysis. The proportion of cross-sectional research published in academic papers to clinical or genuinely problematic cases suggests significant, unresolved, and problematic issues in this field of research. Relying on the Components Model of Addiction (CMA), we were able to locate 100 cases on the internet that could fit the eligibility criteria for this (yet clinically undiagnosable) dysfunction. However, we expanded the typical CMA symptoms to ensure a closer clinical relevance. Hence, these cases also had to involve physical, psychological, and social damage to the person, which is a criterion that distinguishes passion from addiction. Adding the damage criterion, we could still identify 100 cases quickly.

Accordingly, we found support for genuine cases of exercise addiction. However, they cannot be identified through the current research methodologies. Indeed, the voluminous research on exercise addiction uses questionnaires, which are not diagnostic tools. None of the existing instruments can establish whether there was some damage because of problematic exercise behavior and, thus, could only infer a certain ‘risk level’ of exercise addiction, which may never materialize in dysfunction. Furthermore, most current research is conducted with healthy exercisers, a relatively nonrepresentative sample since individuals exhibiting morbid exercise patterns are unlikely to surface in these samples. They are more likely to end up in emergency rooms and orthopedic units. Consequently, new avenues of investigation are needed to bridge the gap between research and clinical practice. First and foremost, the research direction should complement surveys with clinical follow-ups of the problematic cases using a pyramid model.

# Digital Addiction in Children

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Digital addiction can be explained as children spending enough time with digital tools to neglect their daily lives. Some digital activities such as watching cartoons and playing educational games should not be considered as addiction. Children neglect their sleep, nutrition, daily habits and social life in order to spend more time with digital devices (Young, 2009). Children having digital devices or encountering digital games at an early age may increase the risk of digital addiction due to digital game addiction. In the American Psychiatric Association DSM-5 manual, Internet gaming disorder is classified as a disorder that is likely to increase in the future and needs to be researched.

The effects of digital addiction on children can be observed physically and biologically in the form of sitting / posture disorders, weakening of motor skills, dry eyes, nutritional irregularities. Due to their inability to communicate face-to-face with people in social environments, skills such as self-expression, recognition of emotions, problem solving may not develop. Since they cannot share their peers, they may become tense, irritable and their social skills and their ability to initiate and maintain friendships may weaken. Cognitive perception and attention/learning processes may be negatively affected. Creative thinking and positive problem solving may be affected.

Self-discipline and emotion regulation skills may regress in children. At the same time, reward sensitivity may develop as internal control and impulse control decrease. Thus, the desire to spend more time on digital devices can be observed. As a result of all these, there is a risk of decline in academic achievement, withdrawal from social environments, withdrawal, and psychologically insufficient self-confidence in children.

Among the symptoms of digital addiction in children, increasing the time spent on the internet, restlessness when there is no internet connection or digital device, sleep problems due to postponement of physical needs, excessive fatigue, and changes in dietary patterns are frequently observed. I wonder how long, for what purpose or where children use digital tools and at the end of which they carry the risk of addiction? This situation should be evaluated depending on the child's age, developmental level, academic and social status, and the extent to which it negatively affects daily life. The fact that children lie about the time they spend using digital devices, move away from their family and friends, ask for digital devices even at school or in social environments, and want to use their digital device as soon as possible may suggest that there is a problem.