1828
AKADÉMIAI KIADÓ

Health response to problematic usage of the internet: A global survey on trends, available treatments and key challenges

ARASH KHOJASTEH ZONOOZI[1,2], JOE SCHOFIELD[1,3], FATEME SADAT ABOLGHASEMI[1,2], SOPHIA ACHAB[4,5], ATUL AMBEKAR[6], HENRIETTA BOWDEN-JONES[7], ZSOLT DEMETROVICS[8,9,10], MOHSEN EBRAHIMI[1,2], NAOMI A. FINEBERG[11], YASSER KHAZAAL[12], HAE KOOK LEE[13], KRISTIANA SISTE[14,15], DAN J. STEIN[16], ANISE M.S. WU[17], MEHRAN ZARE-BIDOKY[1,2], ISAM-GEN SOCIETIES' EXPERTS[†], MARC N. POTENZA[18,19,20,21], and ALEXANDER MARIO BALDACCHINO[3**], HAMED EKHTIARI[22,23*]

Journal of Behavioral Addictions

15 (2026) 1, 195–208

DOI:
10.1556/2006.2025.00106

FULL-LENGTH REPORT

[1] International Society of Addiction Medicine, Calgary, Canada

[2] Iranian National Center for Addiction Studies, Tehran University of Medical Sciences, Tehran, Iran

[3] School of Medicine, Division of Population and Behavioural Science, University of St Andrews, St Andrews, United Kingdom

[4] Deputy Division Director & ReConnecte Treatment Centre Director, Addiction division, University Hospitals of Geneva, Switzerland

[5] Director WHO Collaborating Centre for Training and Research in Mental Health, Faculty of Medicine, Geneva University, Switzerland

[6] National Drug Dependence Treatment Centre, All India Institute of Medical Sciences, New Delhi, India

[7] National Centre for Behavioural Addictions, London, United Kingdom

[8] Flinders University Institute for Mental Health and Wellbeing, College of Human Sciences and Culture, Flinders University, Bedford Park, SA, Australia

[9] Institute of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary

[10] Centre of Excellence in Responsible Gaming, University of Gibraltar, Gibraltar

[11] Hertfordshire Partnership University NHS Foundation Trust, Hertfordshire, United Kingdom

[12] Service de médecine des addictions, Département de psychiatrie, Centre hospitalier universitaire vaudois et Université de Lausanne, 1011 Lausanne, Switzerland

[13] Uijeongbu St. Mary's Hospital, Uijeongbu, South Korea

[14] Department of Psychiatry, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia

[15] Dr. Cipto Mangunkusumo General Hospital, Jakarta, Indonesia

[16] SAMRC Unit on Risk & Resilience in Mental Disorders, Department of Psychiatry & Neuroscience Institute, University of Cape Town, Cape Town, South Africa

[17] Department of Psychology and Centre for Cognitive and Brain Sciences, University of Macau, Macao, China

[18] Departments of Psychiatry and Neuroscience and Child Study Center, Yale School of Medicine, New Haven, CT, USA

[19] Connecticut Council on Problem Gambling, Wethersfield, CT, United States

[20] Connecticut Mental Health Center, New Haven, CT, United States

[21] Wu Tsai Institute, Yale University, New Haven, CT, United States

[22] Department of Psychiatry, University of Minnesota, Minneapolis, MN, United States

[23] Laureate Institute for Brain Research, Tulsa, OK, United States

This is an article with collaborative authorship

[†]The full list of collaborators can be found in the Appendix.

[*]Corresponding author.
E-mail: h.ekhtiari@gmail.com

[**]Corresponding author.
E-mail: amb30@st-andrews.ac.uk

AKJournals

Received: June 5, 2025 • Revised manuscript received: November 5, 2025 • Accepted: December 24, 2025
Published online: February 21, 2026

ABSTRACT

Background and Aims: Problematic usage of the internet (PUI) is a growing global concern, emerging among more than 5.3 billion people who use the internet worldwide. While specific forms such as online gaming and gambling are recognized as disorders or conditions for further study in diagnostic manuals, global data on prevalence, treatment, and health responses to PUI remain limited. This study aimed to obtain perspectives from representatives of addiction medicine/psychiatry societies regarding the scope, treatment, and health responses to PUI and identify gaps. *Methods:* A global survey was conducted through the International Society of Addiction Medicine's Global Expert Network (ISAM-GEN), involving addiction societies from 38 countries across Europe, Asia/Oceania, the Americas, and Africa. The survey assessed responses to non-specific PUI and five subtypes: online gaming, gambling, pornography, social media, and online shopping. It included case scenarios and questions on the significance and severity of PUI, and country-level health responses. *Results:* Online gambling (94.8%) and gaming (86.9%) were the most frequently reported PUI forms, followed by social media (84.2%), pornography (68.3%), and online shopping (52.6%). Psychotherapeutic approaches, particularly cognitive behavioral therapy, were the most widely available treatments, reported as accessible by over 70% of country respondents. Despite growing awareness—reflected in the formation of PUI interest groups in 44.7% of societies—gaps were reported, including lack of professional certification (78.9%), insufficient practitioner education (68.4%), and inadequate expert training (63.2%). Notably, 65.8% rated the 10-year severity of PUI as extremely or very important. *Discussion & Conclusion:* Global attention to PUI is increasing, but more robust healthcare responses are needed. Addressing existing gaps requires enhanced training and sustainable international efforts.

KEYWORDS

addictive behaviors, compulsive behaviors, gambling, global survey, impulsive behaviors, internet addiction, pornography, technology addiction, video games

INTRODUCTION

Digital technologies have profoundly transformed modern life, deeply integrating communication, education, work and leisure. While these innovations have facilitated numerous societal advancements, concerns have been raised about their potential adverse effects on mental health (Achab et al., 2015; Stein, Fineberg, & Chamberlain, 2021). Among these concerns, problematic usage of the internet (PUI) has garnered significant attention from researchers, clinicians and policymakers (Fineberg et al., 2022; Potenza, Faust, & Faust, 2020). Since the mid-1990s, when internet adoption became widespread in developed countries, its growth has been both rapid and extensive. Today, over 5.3 billion people, representing approximately two-thirds of the global population—including children—use the internet. Social media platforms account for a substantial portion of this digital engagement, with nearly 5 billion individuals actively participating (Petrosyan, 2023).

PUI refers to patterns of online behavior that generate significant distress or functional impairment. It includes both addictive behaviors (e.g., gaming or gambling) and other maladaptive or compulsive online activities with negative health impact (Fineberg et al., 2022; Zare-Bidoky et al., 2025; Demetrovics et al., 2026). Thus, "problematic" is used more broadly than "addictive," while behaviors like cyberbullying are problematic mainly due to their interpersonal impact rather than an addictive process (Fineberg et al., 2025).

The prevalence of PUI has become increasingly evident. A 2020 systematic review and meta-analysis estimated that around 7% of the global population showed signs of PUI, with rising prevalence estimates over time, especially among younger demographics (Pan, Chiu, & Lin, 2020). These findings suggest that PUI may represent an emerging public health concern warranting further attention and research (Daeppen et al., 2019). The Lancet Psychiatry Commission on PUI has emphasized the global significance of PUI, advocating for increased attention and coordinated efforts to address its challenges (Fineberg et al., 2025).

PUI may manifest in various forms, some of which are officially recognized in diagnostic manuals. Gambling and gaming disorders, each with online specifiers, are categorized as disorders due to addictive behaviors in the ICD-11, whereas internet gaming disorder is listed as a condition for further study in DSM-5-TR (Harrison, Weber, Jakob, & Chute, 2021). Compulsive sexual behavior disorder, recognized in ICD-11 as an impulse control disorder, is often linked to PUI primarily through its online expressions, such as problematic use of internet pornography (Brand et al., 2022; Brand & Potenza, 2023). Other manifestations like online compulsive buying/shopping, cyberchondria, problematic use of social media, and digital hoarding have been empirically associated with maladaptive internet use but are not formally classified disorders (Fineberg et al., 2022). The inclusion of these diverse behaviors illustrates that "internet use" serves as a general term encompassing a range of online interactions and platforms. In this context, "non-specific/general PUI" refers to generalized excessive or dysregulated use of the internet that is not limited to one specific online activity. These varied presentations highlight the complexity of PUI and the need for diverse intervention strategies. Dimensional frameworks such as the Hierarchical Taxonomy of Psychopathology (HiTOP) (Kotov et al., 2017) and the Research Domain Criteria (RDoC) (Cuthbert & Insel, 2013) further conceptualize PUI as part of broader spectra of psychopathology, emphasizing underlying processes like impulsivity, compulsivity, and altered reward sensitivity that cut across diagnostic boundaries.

A critical challenge in addressing PUI is the scarcity of comprehensive data on available treatments worldwide. For instance, while some countries have integrated PUI

interventions into existing mental health services, others lack dedicated resources (King et al., 2017). This situation hinders the development of informed strategies to address the issue on a global scale and underscores the need for research aimed at mapping treatment landscapes and identifying disparities in access (Achab & Billieux, 2022).

In alignment with this growing concern about PUI, we conducted a global survey to obtain perspectives from leadership representative of addiction medicine/psychiatry societies regarding trends, health responses, prevalence and the perceived severity of PUI. Specifically, this study surveyed addiction medicine/psychiatry leadership professionals regarding the preparedness of health systems to manage PUI while identifying critical gaps in current practices. The survey utilized the International Society of Addiction Medicine Global Expert Network (ISAM-GEN), a platform connecting addiction medicine societies worldwide. Through this network, diverse perspectives were gathered, offering a comprehensive view of the global PUI landscape (Ekhtiari et al., 2024). This study does not aim to provide epidemiological estimates but rather to capture informed perceptions and national-level insights from addiction professionals worldwide. By mapping these expert perspectives, the research offers a foundational understanding of how different regions perceive and respond to PUI within existing health systems.

METHODS

Participants

The study initially invited participants from the ISAM-GEN database of 48 national addiction medicine/psychiatry societies. Key contacts from the societies (participants) were experienced addiction medicine/psychiatry professionals, serving as representatives of their national addiction medicine/psychiatry societies. The full list of ISAM-GEN societies and their characteristics (including both respondents and non-respondents in this survey) has been previously published (Ekhtiari et al., 2024).

Eligibility criteria mandated that participants be active members of their respective societies and actively engaged in clinical, research, or policy-related activities pertinent to addiction medicine. To ensure credibility, participants were either high-ranking members of their societies (e.g., presidents, vice presidents, or section directors/chairs) or individuals nominated directly by such officials to complete the survey on behalf of the society. Responses were excluded if surveys were incomplete or submitted by individuals not formally affiliated with their national society.

Recruitment was conducted via direct email invitations, followed by up to seven weekly or biweekly reminders to non-responders to maximize participation.

This recruitment approach, while ensuring credibility and national-level representation, may also introduce selection bias, as senior representatives might not fully capture the diversity of perspectives within broader clinical practice. However, at the beginning of the survey, participants were explicitly instructed to reflect their society's collective viewpoint rather than their individual opinions, encouraging them to cross-check information within their respective organizations where possible.

Measures

A structured survey instrument was developed and validated by the steering committee, a diverse panel of international experts in PUI who ensured its content validity (see supplementary materials for a list of members). The questionnaire was designed to comprehensively assess various aspects of PUI and consisted of four main sections, as described below.

PUI case scenarios. This section included case scenarios drafted based on criteria from major diagnostic manuals such as the DSM-5 and ICD-11 wherever applicable. The steering committee reviewed and validated the scenarios to ensure clinical accuracy and conceptual consistency. These scenarios were designed to represent six specific PUI subtypes: non-specific/general PUI, problematic online gaming, problematic online gambling, problematic use of online pornography, problematic use of social media and problematic online buying/shopping. Each scenario operationalized key symptoms (e.g., impaired control, increasing priority, continuation or escalation despite adverse consequences, functional impairment, and distress) consistent with these manuals, providing a shared interpretive framework grounded in the study's conceptual model of PUI. The scenarios were placed at the beginning of the survey as anchoring vignettes to ensure that respondents had a consistent understanding of each PUI supebtype and its definition while answering subsequent sections of the survey (Grol-Prokopczyk, Verdes-Tennant, McEniry, & Ispány, 2015; King & Wand, 2007). Questions in this section evaluated several aspects, including the prevalence (frequency of each subtype in respondents' regions), the most likely initial and ultimate providers of treatment, the expected treatment approaches, the anticipated primary treatment settings and respondents' evaluations of the expertise of the addiction workforce and the health system's capability to address these scenarios. Full survey questions are available in the supplementary materials.

Perceived societal and organizational importance of PUI. Items exploring topics such as the existence of interest groups, expert training programs, certifications, perceived current and future severity of PUI, research development, investment plans and awareness efforts.

Perceived country-level health responses to PUI. Questions addressing health responses to PUI, including the availability of treatment programs, expert awareness programs, general educational programs, prevention programs, screening programs, community awareness initiatives and the availability of various treatment modalities.

Perceived national estimates of distinct PUI subtype severity. Items assessing addiction societies' or organizations' consensus-based perceptions of the severity of specific PUI subtypes within their respective countries or regions.

The full survey draft is available in the supplementary materials.

Procedure

The survey was disseminated online using Qualtrics software, Version August 2024, with distribution occurring over two-and-a-half months (late July 2024 - early October 2024). Invitations were sent via email, accompanied by follow-up reminders to maximize participation. To ensure accessibility, the survey was designed to be mobile-friendly and available in English, the primary language of ISAM-GEN communications. Participation was voluntary and no financial incentives were offered. The survey underwent pre-testing with a small group of ISAM-GEN assistant officers to ensure clarity, relevance and cultural adaptability. All steering committee members approved the questionnaire before its publication.

Statistical analysis

Data were analyzed using RStudio (version 2024.9.0.375). Descriptive statistics, including frequencies, percentages, means and standard deviations were calculated to summarize survey responses across all sections including the prevalence of PUI subtypes, organizational and societal importance, country-level health responses and perceived severity of PUI subtypes. The survey form required complete responses for submission. Partial data were only possible if a respondent abandoned the survey before completion, in which case their responses were excluded from analyses. Given the small and regionally unbalanced sample size, the data were analyzed descriptively. Inferential or comparative analyses were not conducted, as these would have generally lacked statistical reliability and could risk overinterpreting limited subgroup data.

Ethics

Ethical approval for the study was obtained from the University of St Andrews School of Medicine Ethics Committee, with approval number MD18020. All participants provided informed consent electronically before beginning the survey. Data confidentiality was protected by anonymizing responses and securely storing data on password-protected servers. Participants were informed of their right to withdraw from the study at any time without consequence.

RESULTS

Demographic characteristics

Out of the 48 national addiction medicine/psychiatry societies listed in the ISAM-GEN database, 38 societies responded across Europe (13), Asia (11), South America (5), Africa (5), North America (3) and Oceania (1), resulting in a response rate of 79.2%. Figure 1 depicts the worldwide distribution of countries participating in this survey study. Among the respondents, 81.6% (n = 31) held senior leadership roles, such as president, vice president, or chair/director/board member, within their respective societies. The average length of experience working with individuals affected by behavioral addictions, either directly or indirectly, was 20.7 years (SD = 8.6). More than half of the respondents were affiliated with universities or teaching hospitals (52.6%, n = 20) and most participants were primarily engaged in clinical activities, with 63.2% (n = 24) working as clinicians.

Prevalence and severity of PUI subtypes

The perceived prevalence of PUI, determined by respondents rating the frequency of each presented scenario on a Likert scale, demonstrated variations across the different subtypes. Non-specific/general PUI was reported by 89.5% (n = 34) of respondents, summing frequent and

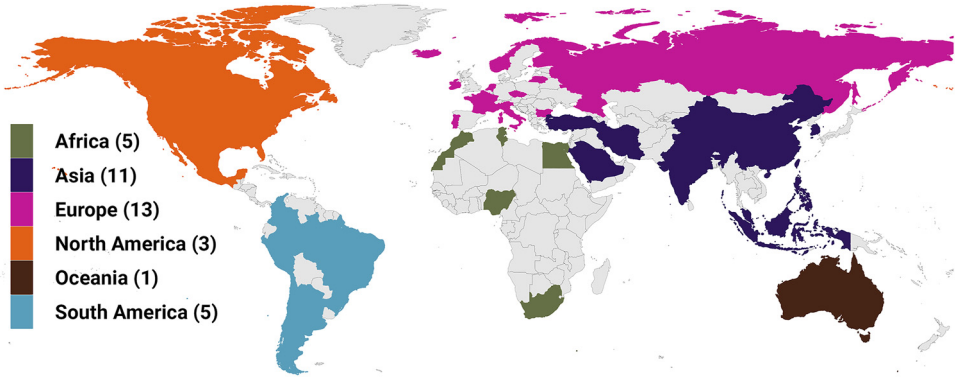

Fig. 1. **Global distribution of the societies participating in the survey**. List of the participating countries is as follows: Argentina, Australia, Brazil, Bulgaria, Canada, Chile, China, Colombia, Czechia, Egypt, Finland, France, Iceland, India, Indonesia, Iran, Ireland, Italy, Lithuania, Malaysia, Malta, Mexico, Morocco, Nepal, Netherlands, Nigeria, Norway, Peru, Philippines, Portugal, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Tunisia, Turkiye and the USA. The numbers in parentheses following the continent names indicate the number of countries from each continent included in this study

occasional cases. Problematic online gambling exhibited the highest prevalence, with 94.7% (n = 36) reporting frequent or occasional cases. Similarly, problematic online gaming was reported by 86.8% (n = 33) as frequent or occasional. Problematic online buying/shopping was perceived by 52.6% (n = 20) across these categories, whereas problematic use of social media was noted by 84.2% (n = 32). Problematic use of online pornography was described by 68.4% (n = 26) as frequent or occasional. Figure 2 reflects the general and country-specific prevalence of PUI subtypes.

Regarding severity, problematic online gambling stood out, with 10.5% (n = 4) rating it as very severe and 13.2% (n = 5) as severe. Problematic use of social media also had notable ratings, with 18.4% (n = 7) classifying it as severe. Problematic online gaming and use of pornography were rated as severe by 13.2% (n = 5). In contrast, problematic online buying/shopping was rarely classified as severe (2.6%, n = 1), with many respondents rating it as mild (26.3%, n = 10) or very mild (23.7%, n = 9). Moderate ratings were common across subtypes, particularly for problematic online gambling (29.0%, n = 11), online pornography (21.1%, n = 8) and social media (31.6%, n = 12). A substantial proportion of respondents expressed uncertainty about the severity of specific subtypes, particularly for online pornography. Supplementary Figure 1 shows the general and country-specific severity of PUI subtypes.

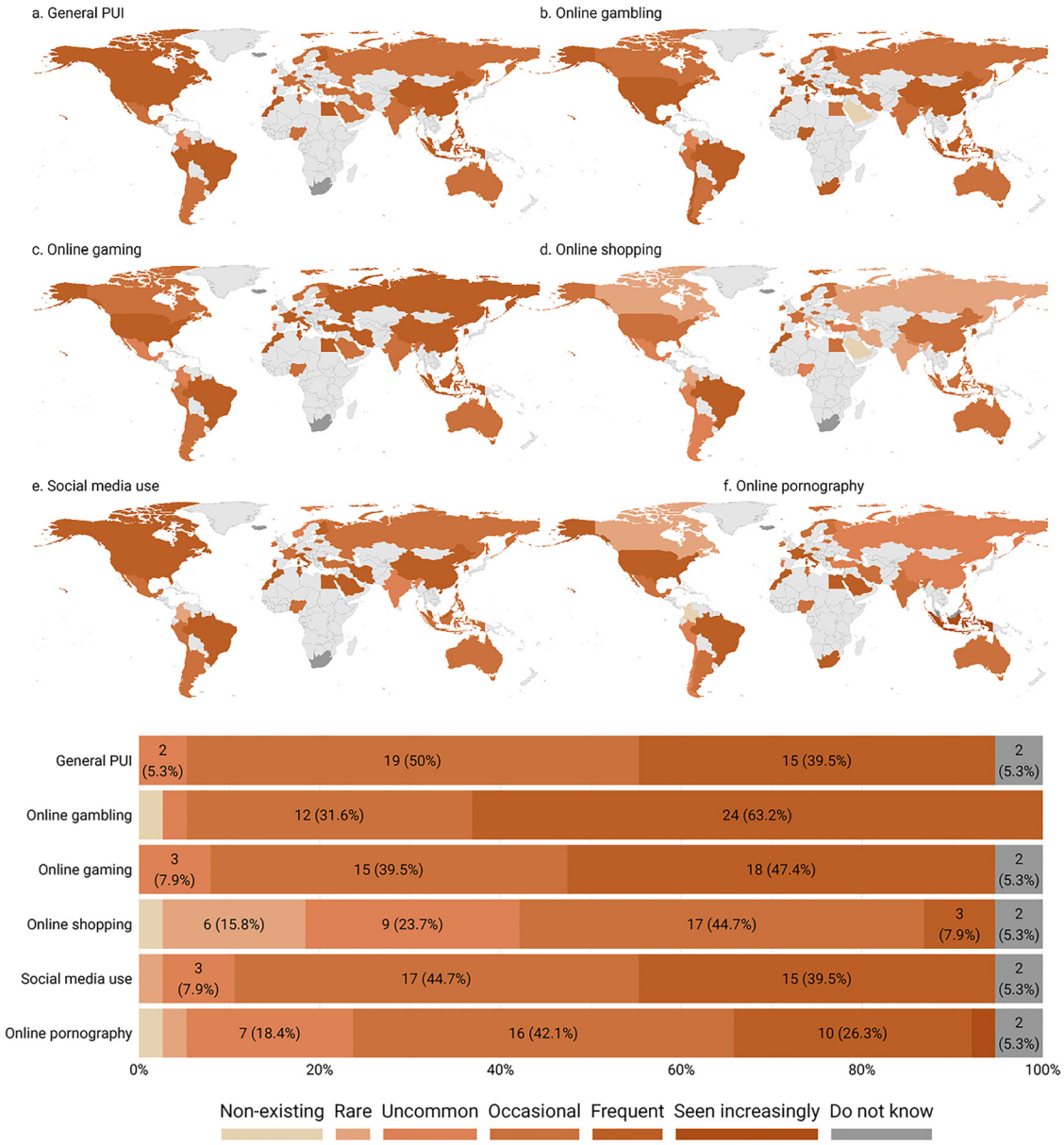

Fig. 2. **Perceived frequency of distinct PUI branches**. The six world heat maps provide a country-specific visualization of PUI branches, using the Likert scale to represent responses ranging from non-existing to seen increasingly. Additionally, the Likert scale diagram illustrates the frequency of these distinct branches as reported by participating societies

Treatment services for PUI

The treatment options available for PUI displayed an almost consistent pattern between PUI subtypes. CBT-based psychotherapy was the most perceived frequently reported available treatment for most PUI types, including problematic use of online pornography (81.6%, $n = 31$), use of social media (79.0%, $n = 30$), online gambling (76.4%, $n = 29$), online gaming (73.7%, $n = 28$), online buying/shopping (71.1%, $n = 27$) and non-specific/general PUI (68.4%, $n = 26$). Psychoeducation was also commonly reported, particularly available for problematic use of online pornography (57.9%, $n = 22$) and online buying/shopping (52.6%, $n = 20$). Pharmacological treatments were perceived to be more frequently available for problematic online gambling (52.6%, $n = 20$) and use of online pornography (29.0%, $n = 11$). In comparison, mindfulness-based interventions and peer group support therapy were reported more moderately for problematic online gaming (34.2%, $n = 13$) and use of online pornography (31.6%, $n = 12$). System-level interventions were perceived less frequently available (ranging between 10.5 and 26.3%) and alternative medicine options were rarely considered available (ranging between 2.6 and 5.3%). Figure 3 summarizes

Fig. 3. A **vailable treatment options for distinct PUI branches**. This figure illustrates the availability of various treatment facilities for PUI across different countries. The complete list of treatment options included in the survey, as reported by the respondents, was as follows: Pharmacological therapy, Neuromodulation (different brain stimulations including transcranial magnetic stimulation), Psychoeducation or education only, CBT-based psychotherapy, Mindfulness-based interventions, Peer group support therapy, Alternative medicine interventions (including homeopathy and acupuncture) and System-level interventions (family interventions, school, community, etc.)

the general and country-specific availability of various treatment options for PUI subtypes.

Long-term (more than one month) outpatient programs were the most perceived frequently available first-line treatment setting for all PUI subtypes, with higher availability for problematic online gambling (63.2%, $n = 24$), use of online pornography (60.5%, $n = 23$) and online gaming (55.3%, $n = 21$). Short-term (up to one month) outpatient programs were also commonly reported to be available as first-line settings, particularly for problematic use of social media (39.5%, $n = 15$) and online buying/shopping (34.2%, $n = 13$). Inpatient programs, online long-term programs and other alternative settings were reported rarely, with availability ranging from 0 to 5.3%.

The care providers most frequently reported as the initial point of contact for individuals with different subtypes of PUI were psychologists (42.1–50%), followed by general practitioners or family doctors (18.4–39.5%). Beyond initial care, follow-on treatment was most commonly provided by psychologists (36.8–47.4%) and psychiatrists (29.0–36.8%). Addiction medicine specialists were perceived less frequently available as ultimate care providers (5.3–29.0%), while involvement from other health practitioners or emergency doctors was rarely reported (0–5.3%). General practitioners were noted as points of initial contact but seldom for ultimate treatment, highlighting the multidisciplinary nature of managing PUI.

Health response towards PUI

For all PUI subtypes, the perception of the addiction workforce's expertise indicated a predominance of intermediate levels, with most responses categorized as "competent" (29.0–39.5%) or "advanced beginner" (26.3–36.8%). Higher levels of expertise, such as "proficient" (0–15.8%) or "expert" (0–10.5%), were reported considerably less frequently, while novice levels ranged from 13.2 to 26.3%. These perceptions suggest a workforce with foundational skills but limited advanced specialization. In contrast, the capability of the broader health systems to manage PUI scenarios was rated more positively overall. Many rated the systems as "somewhat capable" (44.7–55.3%), with smaller proportions describing them as "completely capable" (5.3–7.9%). However, notable gaps in readiness were highlighted, with responses indicating "somewhat incapable" (18.4–26.3%) or "mostly incapable" (10.5–26.3%) in significant proportions. Scenarios involving problematic online buying/shopping and use of social media showed slightly higher incapability ratings compared to other cases, underscoring variability in perceived system preparedness. Figure 4 depicts the contrast between perceived health system capability and addiction workforce expertise.

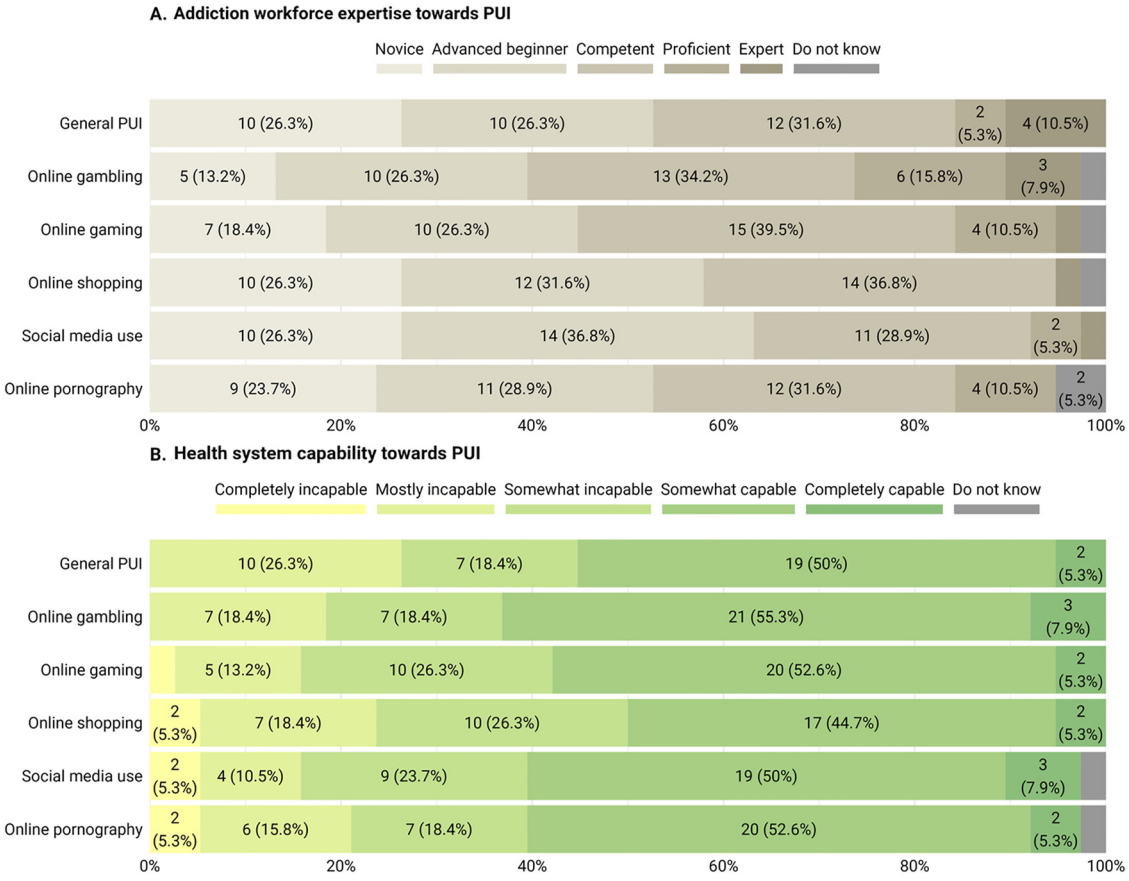

Fig. 4. **Health system capability in contrast to available addiction workforce expertise**. Figure (A) illustrates societies' perspectives on the expertise level of their country's addiction workforce in addressing PUI, ranging from novice to expert. Figure (B) presents their views on the capability of their country's health system to manage PUI, measured on a scale from 'completely incapable' to 'completely capable'

Responses suggested a mixed availability of distinct treatment and support programs for PUI within various countries' health systems. While 2.6% (n = 1) of respondents indicated the presence of nationwide specific PUI treatment programs, an equal proportion of 44.7% (n = 17) reported non-nationwide programs or the absence of any programs. Expert awareness programs showed slightly better coverage, with 10.5% (n = 4) being nationwide and 39.5% (n = 15) available without nationwide reach, though a sizable percentage (42.1%; n = 16) noted their absence. Similarly, 2.6% (n = 1) noted that general educational programs were developed nationwide, while half (50.0%, n = 19) noted regional availability. PUI prevention and screening programs were less commonly reported available between countries, with only 7.9% (n = 3) and 5.3% (n = 2) of respondents, respectively, noting development for nationwide use. Substantial gaps were suggested as 50.0% (n = 19) and 68.4% (n = 26) of respondents reported no such programs for prevention and screening programs, respectively. Supplementary Figure 2 highlights the general and country-specific perceptions of the availability of the aforementioned programs related to PUI.

Public awareness of PUI remained limited, with only 36.8% of respondents (n = 14) describing the community as adequately aware, while 39.5% (n = 15) rated awareness as partial. In contrast, addiction experts were perceived as demonstrating higher levels of awareness, with 23.7% (n = 9) reporting them as fully aware and 47.4% (n = 18) as adequately informed, suggesting a disparity between professional and public understanding. Supplementary Figure 3 depicts a contrast between perceptions of community and experts' awareness levels in general and country-specific scales.

PUI prioritization and engagement among societies

The survey results indicate varying levels of engagement and prioritization regarding PUI within countries and addiction medicine/psychiatry societies. Interest groups focused on PUI were reported by 44.7% (n = 17), while 24.2% (n = 13) noted their absence. Expert training programs on PUI were uncommon, with only 31.6% (n = 12) confirming their existence, compared to 63.2% (n = 24) reporting no such programs. Certifications in PUI were even rarer, perceived as available in only 10.5% (n = 4) of countries, with 78.9% (n = 30) indicating no certifications.

The need for research development on PUI was recognized as very or extremely important by a combined 68.4% (n = 26), with only 13.2% (n = 5) rating it as somewhat important or less. Current availability of investment plans for education and development in PUI as a clinical field was reported by 31.6% (n = 12), though 39.5% (n = 15) had no such plans and 28.9% (n = 11) were unsure. These findings suggest a current gap in infrastructure and initiatives for PUI but an increasing acknowledgment of its future importance.

Regarding the perceived importance of PUI, 31.6% (n = 12) of respondents rated it as very important and 15.8% (n = 6) as extremely important at present. However, 28.9% (n = 11) considered it important and 21.1% (n = 8) only somewhat important. However, when evaluating its future significance in the next 10 years, the proportion of respondents rating PUI as very important increased to 42.1% (n = 16), with 23.7% (n = 9) seeing it as extremely important, suggesting growing concern over time. Figure 5 provides an overview of the perceived importance of PUI and the extent of engagement by addiction medicine/psychiatry societies in developing programs and facilities.

DISCUSSION

Global relevance and growing concerns regarding PUI

This international survey offers a global perspective on the health responses to PUI, suggesting a growing recognition of its significance alongside considerable gaps in infrastructure and preparedness. Among specific subtypes, problematic online gambling and gaming were most frequently reported, followed by social media, pornography and online shopping. While psychotherapeutic interventions, particularly cognitive behavioral therapy, were widely available, the overall health response to PUI appears to remain fragmented. Notably, the majority of surveyed societies emphasized the rising importance of PUI over the next decade, yet substantial deficiencies were suggested in professional certification, practitioner education and expert training programs. These findings suggest a disparity between growing concern and actual readiness and a need for coordinated global strategies to address PUI across clinical, educational and policy domains.

Recognition of PUI's severity and future projections

The findings of this global survey align with the increasing recognition of PUI as an important public health concern (Fineberg et al., 2025). This survey contributes valuable insights by providing perceptions from leading representatives of addiction medicine/psychiatry societies regarding the clinical presence of various PUI subtypes, each with distinct patterns of frequency, impact and severity. The variations across PUI subtypes underscore the complexity of PUI and importance of subtype-specific research and interventions to address PUI's multifaceted nature effectively (Achab, 2022b; Reed et al., 2022). The survey results suggest widespread acknowledgment among addiction experts regarding the severity of PUI, with nearly half considering it extremely or very important at present. Future projections highlighted an even greater emphasis, with two-thirds of respondents anticipating PUI to remain a critical issue over the next decade. This pattern suggests a need for timely interventions and robust policy development.

PUI severity has been associated with mental health challenges and various psychological distress (Wong et al., 2020). Various factors may influence PUI severity, including sex (Achab, 2022a, 2024a, 2024b), cultural differences and spirituality (Lee, Potenza, & Bhang, 2025). For instance, current literature indicates that males are more vulnerable to

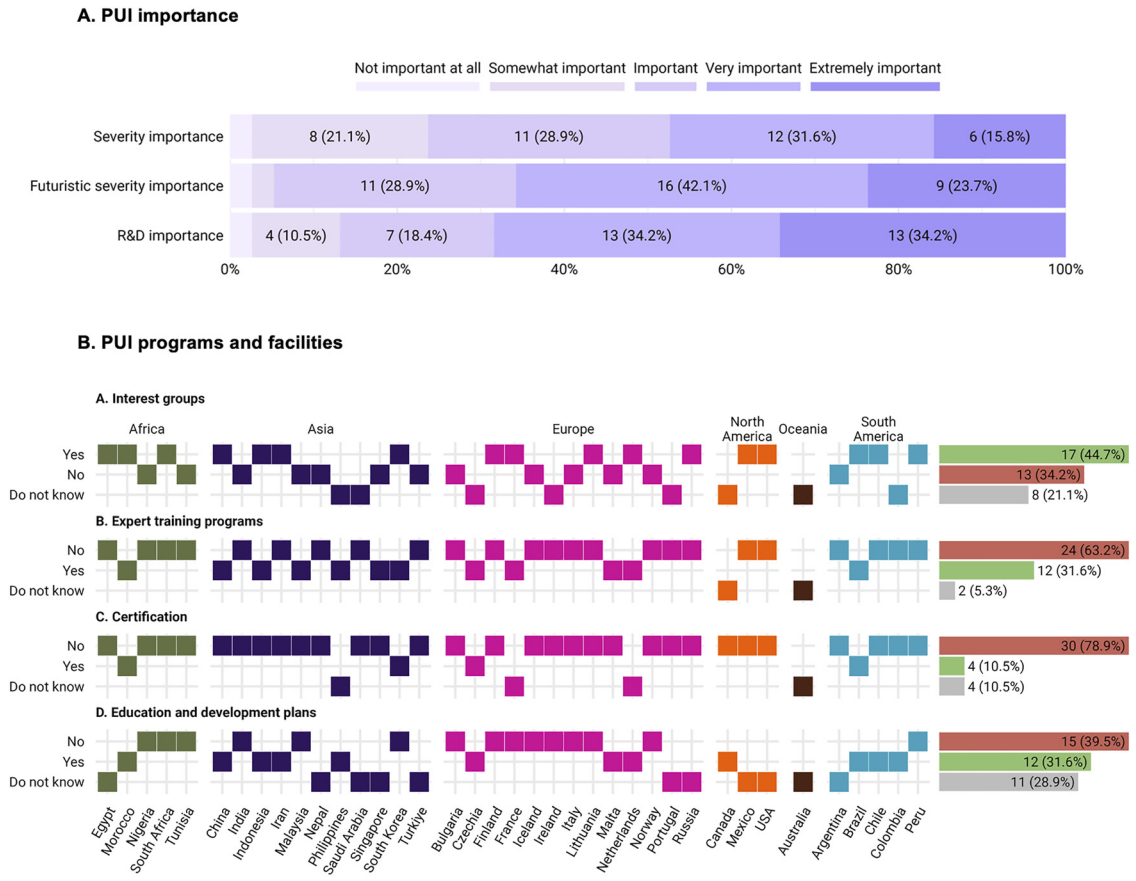

Fig. 5. **Importance of PUI and availability of supporting programs and facilities**. Figure (A) illustrates societies' views on the importance of PUI in three dimensions: its current severity, its projected severity over the next 10 years and its role in research development, rated on a scale from not important at all to extremely important. Figure (b) presents perspectives on the availability of resources to support clinical responses to PUI, including interest groups, expert training programs, certification opportunities and investment in education and development

PUI (Baloğlu, Şahin, & Arpaci, 2020), particularly specific forms like those involving gaming (Su, Han, Yu, Wu, & Potenza, 2020), while emerging research explores the impact of cultural settings and spirituality on its severity (Dossi, Buja, & Montecchio, 2022; Kanabar et al., 2024). Notably, this global survey revealed variations in PUI patterns across regions, with perceptions of problematic use of online pornography and social media milder in Asian countries compared to the Americas and Europe.

A significant portion of respondents also acknowledged the importance of advancing PUI-related research and treatment development, suggesting the clinical importance of understanding and addressing this multifaceted phenomenon. Together, these findings suggest the need for a globally coordinated approach to mitigate the impact of PUI effectively.

Challenges in health system responses towards PUI

A key finding from the survey is the perceived limitation of health systems to adequately address PUI. While nearly half of the respondents reported the existence of some sort of treatment program in their country, only a small proportion indicated their availability on a nationwide scale. These findings should be interpreted in light of current diagnostic frameworks, where only gaming disorder is formally recognized in ICD-11 and gambling disorder in both ICD-11 and DSM-5-TR. Thus, many health systems may not be mandated to provide specialized services for other PUI subtypes. This diagnostic gap may in part explain seemingly limited and inconsistent health responses observed across countries and suggests the need to expand formal recognition of additional PUI forms. Beyond expanding diagnostic recognition, establishing national monitoring systems that provide reliable and comparable quantitative data would be essential to support evidence-based planning and stronger health system responses. Aligning with existing literature, the most widely available options for tackling PUI rely on psychotherapeutic approaches such as CBT, mindfulness-based interventions and family or group therapy (Chadha, Patil, Toshniwal, Sinha, & Toshniwal, 2024; Gratzer & Khalid-Khan, 2016; Hofmann & Gómez, 2017). However, there remains a notable lack of robust, context-specific data from various countries regarding the adaptation and effectiveness of these treatments for PUI, highlighting the need for targeted research and development in this area. While

the survey did not directly assess cost or geographic disparities, the reported variations in health system capability and treatment availability may indirectly reflect accessibility barriers, such as uneven service distribution and limited nationwide reach. Future research is warranted to investigate further these aspects.

Despite PUI's prevalence, no pharmacological treatments have been specifically approved for PUI, though our study suggests frequent off-label use of medications across different countries. This may stem from the frequent co-occurrence of PUI with psychiatric disorders such as depressive, anxiety, attention-deficit and other disorders, which often benefit from pharmacological management using medications with regulatory indications (Lee, Han, Kim, & Renshaw, 2013; Saikia, Das, Barman, & Bharali, 2019; Yoo et al., 2004). Additionally, ongoing research into medications targeting compulsive behaviors and internet-related cravings provides a promising but as yet unestablished avenue for addressing PUI (Solly, Grant, & Chamberlain, 2022).

Awareness campaigns and prevention programs, which have shown some evidence of efficacy in similar contexts (Saletti, Van den Broucke, & Chau, 2021; Theopilus, Al Mahmud, Davis, & Octavia, 2024), were reported to exist in limited capacities. This situation suggests significant gaps in health systems' readiness and capacity to address PUI effectively (Long et al., 2022). Strengthening these systems could benefit from global coordination to develop and assess standardized approaches and promote the exchange of successful strategies, paving the way for a more capable and unified response to PUI.

Engagement of addiction medicine/psychiatry societies

The role of addiction medicine/psychiatry societies in addressing PUI remains underdeveloped globally. While nearly half of respondents in this survey reported the presence of PUI-focused interest groups within their addiction medicine/psychiatry societies, only 10% indicated the availability of certification programs and less than one-third offered expert training programs. These findings underscore that while addiction experts are increasingly recognizing PUI as a critical issue, significant gaps persist in capacity building and resource allocation. A notable international effort under the European Cooperation in Science and Technology (COST) Action (CA 16207) established a global network of PUI researchers (EU-PUI) in 2018 (Fineberg et al., 2022). By the initiative's conclusion in mid-2022, it had advanced the field through pivotal research on diagnosis, screening tools, underlying mechanisms and treatment approaches (Brand et al., 2022; Castro-Calvo et al., 2021; Ioannidis et al., 2019; King et al., 2017; Király et al., 2019). Nevertheless, there is an urgent need for similar long-term initiatives at both national and international levels to sustain progress, enhance training and build infrastructure to address PUI effectively. Addiction medicine/psychiatry societies can take a more proactive stance by fostering interdisciplinary collaboration, advocating for resource allocation and developing standardized training and certification pathways.

Challenges in awareness and public engagement

Our survey suggested a potential gap between the awareness of PUI among addiction experts and that within the general public, suggesting a possible barrier to effective prevention and early intervention efforts. Public engagement, particularly through patient and public involvement, offers a promising approach to bridging this divide by involving citizens at all stages of research and decision-making, thereby enhancing the quality and relevance of health initiatives (Hayes, Buckland, & Tarpey, 2012; Staniszewska, Denegri, Matthews, & Minogue, 2018). Adapting this model, the EU-PUI COST Action has successfully illustrated the value of engaging diverse groups, including young people, parents, teachers and people with lived experience, to address knowledge gaps and community concerns (Fineberg et al., 2022). Key initiatives, such as international consultations and the International Festival of Science and Arts on PUI, have demonstrated public interest and highlighted critical challenges, such as the impact of PUI on families and the widening gap in technological literacy (Gjoneska et al., 2021). Building on these successes requires the development of sustained frameworks for public engagement. Establishing advisory groups, co-designed training programs and collaborative platforms can empower citizens and promote shared ownership of PUI-related research and interventions. Non-profit organizations such as Children and Screens have provided educational resources through open-access peer-reviewed publications and books and webinars on topics on relevant to PUI, with a focus on developing youth (Christakis & Hale, 2025). By integrating the public as active partners, health systems can cultivate a more informed and supportive environment, which is important for addressing the multifaceted challenges of PUI effectively.

Study strengths and limitations

This study represents a comprehensive effort to capture the global landscape of PUI through the perspectives of addiction professionals. Its strengths include its wide geographical scope and the use of a validated global expert network, the ISAM-GEN, comprised of leading representatives from national addiction medicine/psychiatry societies. However, several limitations should be considered when interpreting the findings. First, the method used relied on an English-only survey, which may have excluded non-English-speaking professionals, potentially leading to language-based or jurisdictional biases. Additionally, the non-responsive cohort could have skewed results, as certain regions or professional groups may be underrepresented. Although the descriptive design limited comparative analyses across regions or professional roles, this approach was necessary to maintain interpretive validity given the small and heterogeneous sample size. Future studies with larger, balanced samples should explore cross-regional measures in greater depth. Furthermore, some important aspects, such as case

scenarios involving multimorbidities, including those with both PUI and substance use disorders, were not addressed. Additionally, the findings are based on expert consensus estimates provided by leaders from national addiction medicine/psychiatry societies, which reflect professional perceptions from generally more senior individuals rather than from direct epidemiological data. While this method offers valuable informed insights, these perceptions may both overestimate or underestimate the prevalence and severity of PUI, depending on the national health system structure and service organization. In some countries, for instance, PUI cases may be primarily managed within child and adolescent or OCD care settings rather than addiction-focused services, which may limit full national representation in the data. The study also did not fully account for cultural and political contexts, which may influence the perception and management of PUI across different regions. Moreover, stigma and social desirability bias could have affected reporting patterns, particularly for sensitive subtypes such as problematic use of online pornography, which may be underreported in certain cultural settings. Lastly, the narrow definition of treatment providers may have overlooked other potential contributors to PUI care. Future research could address these limitations by incorporating longitudinal designs, region-specific analyses and broader definitions of both treatment providers and PUI-related conditions.

Call to action and policy implications

Addressing the global challenge of PUI would benefit from a comprehensive, multi-faceted approach. Policymakers should prioritize the development of standardized diagnostic tools and context-specific interventions to improve prevention, treatment and research efforts. Expanding diagnostic recognition beyond gambling and gaming disorders, as well as compulsive sexual behavior disorder that could include problematic use of online pornography, could strengthen policy engagement, funding, and clinical infrastructure for addressing diverse PUI forms. Health systems should expand their capacity by integrating PUI interventions into broader mental health and addiction services, increasing accessibility, including in resource-constrained settings. Collaboration at international, national and local levels is important. Initiatives such as sustained global networks, public engagement frameworks and interdisciplinary training programs may enhance the field's capacity to respond effectively. Policymakers and health authorities should also advocate for resource allocation, promote public awareness campaigns and support the active involvement of citizens in shaping interventions. A globally coordinated strategy could most effectively mitigate PUI's impact and foster a healthier digital landscape for future generations.

Conclusion

This global survey provides valuable insights into the perceptions of leaders from addiction medicine/psychiatry societies regarding the current landscape of PUI. The findings suggest gaps in health responses and opportunities in addressing PUI. The findings also suggest the growing recognition of PUI's severity, variability in health system responses and underutilized role of addiction medicine/psychiatry societies. Despite increasing awareness among experts, the general public may have a limited understanding of PUI, and this poses challenges for prevention and intervention. Moving forward, coordinated global efforts may help bridge these gaps by developing standardized definitions, fostering capacity building and integrating PUI strategies into broader mental health frameworks. Collaborative initiatives and investments in research, education and policy development could help address the multifaceted nature of PUI and mitigate its impact on global mental health.

Funding sources: This work is partially supported by funds provided to HE through medical discovery team in addiction (MDTA), University of Minnesota and to AMB through University of St Andrews. The ISAM-GEN platform is a product of the International Society of Addiction Medicine (ISAM) which was used for the purpose of this study.

Authors' contribution: Study conceptualization was led by HE, AKZ, AMB, MNP, and ZD. Project administration and methodological design were coordinated by AKZ, HE, JS, FSA, and MZB. Supervision and questionnaire validation were supported by SA, HBJ, NF, YK, HKL, KS, DJS, and AMW. Data visualization was conducted by ME and AKZ. Members of the ISAM-GEN Societies' Experts contributed to data curation. The original manuscript was drafted by AKZ and HE, with all authors involved in reviewing, editing, and approving the final version. AKZ, FSA, ME, and HE had full access to the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Conflict of interest: MNP discloses that he has consulted for and advised Baria-Tek and Boehringer Ingelheim; been involved in a patent application with Yale University and Novartis; received research support from the Mohegan Sun Casino and the Connecticut Council on Problem Gambling; consulted for or advised legal, non-profit, healthcare and gambling entities on issues related to impulse control, internet use and addictive behaviors; performed grant reviews; edited journals/journal sections; given academic lectures in grand rounds, CME events and other clinical/scientific venues; and generated books or chapters for publishers of mental health texts. MNP is an associate editor of the Journal of Behavioral Addictions. MNP has no conflicts of interest with respect to the content of this manuscript.

NAF has received support for research or networking from the UK National Institute for Health and Care Research, UK Research and Innovation, COST Action, Orchard, and Compass Pathways; accepted travel or hospitality expenses from the British Association for Psychopharmacology, European College of Neuropsychopharmacology, International College of Neuropsychopharmacology, International Forum of Mood and Anxiety Disorders, World Federation of

Societies of Biological Psychiatry and World Psychiatric Association; has received payment from Elsevier for editorial duties and the Mental Health Academy for lecturing; has accepted paid speaking engagements in various industry-supported symposia; and has recruited patients for various industry-sponsored studies in the field of obsessive-compulsive disorder (OCD) and related disorder treatment. NAF also leads an NHS treatment service for OCD; holds board membership for various registered charities linked to compulsive disorders and has participated in a WHO working group focusing on diagnosis and classification of obsessive-compulsive disorder and related disorders for the ICD-11.

SC works a part time private practitioner clinical psychologist at Solvum Psychiatric Clinic Helsinki Finland and at Mehiläinen Medical Center, Forum Helsinki. She has received fees from Helsinki University, Tampere City, Vocational school Stadi, the Finnish Association of Addiction Medicine, the Finnish Association on Intellectual and Developmental Disabilities (FAIDD), Mikkeli County Psychiatric Clinic, Psychologists' Association Turku, and Mehiläinen for her lectures on behavioural addictions and for training professionals, and writer's fees from the Finnish Medical Society Duodecim, Finnish Medical Journal and Myllyhoitoyhdistys ry. She received fees from Svenska Spel (Sweden) for evaluating grant proposals, and Tampere University for preliminary examination of PhD work, acting as an opponent for PhD thesis (Lund University, Sweden and Bergen University, Norway). She has received speaker and participation honoraria from the Turkish Green Crescent Society (Yeşilay): 6th Global Congress on Behavioral Addictions, Istanbul, Turkey and Pompidou Group: Expert workshop in Paris focusing on interventions for online gambling and online video gaming among youth. She declares no conflict of interest in relation to this manuscript.

ZD is the Editor-in-Chief of the Journal of Behavioral Addictions.

Other authors reported no conflicts of interest.

Declaration of generative AI and AI-assisted technologies in the writing process: During the preparation of this work, the authors used ChatGPT solely to improve English language fluency and grammar. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

SUPPLEMENTARY MATERIAL

Supplementary data to this article can be found online at https://doi.org/10.1556/2006.2025.00106.

REFERENCES

Achab, S. (2022a). Dealing with gender bias in treatment demands regarding Internet-related disorders. *Journal of Behavioral Addictions*, *11*, 185.

Achab, S. (2022b). Internet related disorders: Past and future challenges for health systems. *Journal of Behavioral Addictions*, *11*, 2–3.

Achab, S. (2024a). Gender-specific personalized care delivery for problematic use of internet in Switzerland. In *Behavioural addiction in women* (pp. 138–144). Routledge.

Achab, S. (2024b). Women with internet related disorders-illustration of an in-depth clinical assessment and personnalized treatment approach. *European Psychiatry*, *67*(S1), S24.

Achab, S., & Billieux, J. (2022). Problematic social media use: A call for a personalized approach. *Revue Medicale Suisse*, *18*(785), 1146–1148.

Achab, S., Simon, O., Müller, S., Thorens, G., Martinotti, G., Zullino, D., & Khazaal, Y. (2015). Internet addiction. *Textbook of Addiction Treatment: International Perspectives*, *3*, 1499–1513.

Baloğlu, M., Şahin, R., & Arpaci, I. (2020). A review of recent research in problematic internet use: Gender and cultural differences. *Current Opinion in Psychology*, *36*, 124–129.

Brand, M., & Potenza, M. N. (2023). Behavioral addictions in the ICD-11: An important debate that is anticipated to continue for some time: Commentary to the debate: "Behavioral addictions in the ICD-11". *Journal of Behavioral Addictions*, *12*(3), 585–589.

Brand, M., Rumpf, H.-J., Demetrovics, Z., Müller, A., Stark, R., King, D. L., … Fineberg, N. A. (2022). Which conditions should be considered as disorders in the International Classification of Diseases (ICD-11) designation of "other specified disorders due to addictive behaviors. *Journal of Behavioral Addictions*, *11*(2), 150–159.

Castro-Calvo, J., King, D. L., Stein, D. J., Brand, M., Carmi, L., Chamberlain, S. R., … Yücel, M. (2021). Expert appraisal of criteria for assessing gaming disorder: An international Delphi study. *Addiction*, *116*(9), 2463–2475.

Chadha, Y., Patil, R., Toshniwal, S., Sinha, N., & Toshniwal, S. S. (2024). Internet addiction management: A comprehensive review of clinical interventions and modalities. *Cureus*, *16*(3).

Christakis, D. A., & Hale, L. (2025). *Handbook of children and screens: Digital media, development, and well-being from birth through adolescence*. Springer Nature.

Cuthbert, B. N., & Insel, T. R. (2013). Toward the future of psychiatric diagnosis: The seven pillars of RDoC. *BMC Medicine*, *11*(1), 126.

Daeppen, J.-B., Billieux, J., Achab, S., Etter, J.-F., Bertholet, N., Deligianni, M., … Simon, O. (2019). Addictions. *Revue Medicale Suisse*, *15*(632–633), 14–16.

Demetrovics, Z., Czakó, A., Potenza, M. N., Griffiths, M. D., Fineberg, N. A., Stein, D. J., … Király, O. (2026). Are you on the internet or using screen-based devices?: Revisiting the concepts of 'internet addiction' and 'smartphone addiction'. *Journal of Behavioral Addictions* (published online ahead of print 2026), https://doi.org/10.1556/2006.2025.00105

Dossi, F., Buja, A., & Montecchio, L. (2022). Association between religiosity or spirituality and internet addiction: A systematic review. *Frontiers in Public Health*, *10*, 980334.

Ekhtiari, H., Khojasteh Zonoozi, A., Rafei, P., Abolghasemi, F. S., Pemstein, D., Abdelgawad, T., … Bisch, M. (2024). World addiction medicine reports: Formation of the International Society of Addiction Medicine Global Expert Network (ISAM-GEN) and its global surveys. *Frontiers in Psychiatry*, *15*, 1230318.

Fineberg, N. A., Demetrovics, Z., Potenza, M. N., Mestre-Bach, G., Ekhtiari, H., Roman-Urrestarazu, A., … Thomas, S. A. (2025). Global action on problematic usage of the internet: Announcing a lancet psychiatry commission. *The Lancet Psychiatry*, *12*(1), 11–13.

Fineberg, N. A., Menchón, J. M., Hall, N., Dell'Osso, B., Brand, M., Potenza, M. N., … Billieux, J. (2022). Advances in problematic usage of the internet research–A narrative review by experts from the European network for problematic usage of the internet. *Comprehensive Psychiatry*, *118*, 152346.

Gjoneska, B., Jones, J., Vella, A. M., Bonanno, P., Flora, K., Fontalba-Navas, A., … Moreno Sanjuán, D. (2021). Citizen consultation on problematic usage of the internet: Ethical considerations and empirical insights from six countries. *Frontiers in Public Health*, *9*, 587459.

Gratzer, D., & Khalid-Khan, F. (2016). Internet-delivered cognitive behavioural therapy in the treatment of psychiatric illness. *Cmaj*, *188*(4), 263–272.

Grol-Prokopczyk, H., Verdes-Tennant, E., McEniry, M., & Ispány, M. (2015). Promises and pitfalls of anchoring vignettes in health survey research. *Demography*, *52*(5), 1703–1728.

Harrison, J. E., Weber, S., Jakob, R., & Chute, C. G. (2021). ICD-11: An international classification of diseases for the twenty-first century. *BMC Medical Informatics and Decision Making*, *21*, 1–10.

Hayes, H., Buckland, S., & Tarpey, M. (2012). Briefing notes for researchers: Involving the public in NHS, public health and social care research. *Eastleigh: Involve*.

Hofmann, S. G., & Gómez, A. F. (2017). Mindfulness-based interventions for anxiety and depression. *The Psychiatric Clinics of North America*, *40*(4), 739.

Ioannidis, K., Hook, R., Goudriaan, A. E., Vlies, S., Fineberg, N. A., Grant, J. E., & Chamberlain, S. R. (2019). Cognitive deficits in problematic internet use: Meta-analysis of 40 studies. *The British Journal of Psychiatry*, *215*(5), 639–646.

Kanabar, M., Kathiresan, P., Elkholy, H., Zonoozi, A. K., Orsolini, L., Long, J., … Fonseca, F. (2024). Spirituality and behavioural addictions: Narrative review. *BJPsych International*, *1–3*.

King, D. L., Delfabbro, P. H., Wu, A. M., Doh, Y. Y., Kuss, D. J., Pallesen, S., … Sakuma, H. (2017). Treatment of internet gaming disorder: An international systematic review and CONSORT evaluation. *Clinical Psychology Review*, *54*, 123–133.

King, G., & Wand, J. (2007). Comparing incomparable survey responses: Evaluating and selecting anchoring vignettes. *Political Analysis*, *15*(1), 46–66.

Király, O., Bőthe, B., Ramos-Diaz, J., Rahimi-Movaghar, A., Lukavska, K., Hrabec, O., … Nuyens, F. (2019). Ten-item Internet Gaming Disorder Test (IGDT-10): Measurement invariance and cross-cultural validation across seven language-based samples. *Psychology of Addictive Behaviors*, *33*(1), 91.

Kotov, R., Krueger, R. F., Watson, D., Achenbach, T. M., Althoff, R. R., Bagby, R. M., … Clark, L. A. (2017). The Hierarchical Taxonomy of Psychopathology (HiTOP): A dimensional alternative to traditional nosologies. *Journal of Abnormal Psychology*, *126*(4), 454.

Lee, Y. S., Han, D. H., Kim, S. M., & Renshaw, P. F. (2013). Substance abuse precedes internet addiction. *Addictive Behaviors*, *38*(4), 2022–2025.

Lee, M.-S., Potenza, M. N., & Bhang, S.-Y. (2025). Applying the interaction of person-affect-cognition-execution model to addictive behaviors in East Asian countries: Feasibility and considerations. *Journal of the Korean Academy of Child and Adolescent Psychiatry*, *36*(3), 144.

Long, J., Bhad, R., Potenza, M. N., Orsolini, L., Phan, V., Kanabar, M., & Achab, S. (2022). Public health approaches and policy changes after the inclusion of gaming disorder in ICD-11: Global needs. *BJPsych International*, *19*(3), 63–66.

Pan, Y.-C., Chiu, Y.-C., & Lin, Y.-H. (2020). Systematic review and meta-analysis of epidemiology of internet addiction. *Neuroscience & Biobehavioral Reviews*, *118*, 612–622.

Petrosyan, A. (2023). Number of internet and social media users worldwide as of October 2023. https://www.statista.com/statistics/617136/digital-population-worldwide/.

Potenza, M. N., Faust, K., & Faust, D. (2020). *The Oxford handbook of digital technologies and mental health*. Oxford University Press.

Reed, G. M., First, M. B., Billieux, J., Cloitre, M., Briken, P., Achab, S., … Bryant, R. A. (2022). Emerging experience with selected new categories in the ICD-11: Complex PTSD, prolonged grief disorder, gaming disorder, and compulsive sexual behaviour disorder. *World Psychiatry*, *21*(2), 189–213.

Saikia, A. M., Das, J., Barman, P., & Bharali, M. D. (2019). Internet addiction and its relationships with depression, anxiety, and stress in urban adolescents of Kamrup district, Assam. *Journal of Family and Community Medicine*, *26*(2), 108–112.

Saletti, S. M. R., Van den Broucke, S., & Chau, C. (2021). The effectiveness of prevention programs for problematic internet use in adolescents and youths: A systematic review and meta-analysis. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, *15*(2).

Solly, J. E., Grant, J. E., & Chamberlain, S. R. (2022). Pharmacological interventions for Problematic Usage of the Internet (PUI): A narrative review of current progress and future directions. *Current opinion in Behavioral Sciences*, *46*, 101158.

Staniszewska, S., Denegri, S., Matthews, R., & Minogue, V. (2018). Reviewing progress in public involvement in NIHR research: Developing and implementing a new vision for the future. *BMJ Open*, *8*(7), e017124. https://doi.org/10.1136/bmjopen-2017-017124

Stein, D. J., Fineberg, N. A., & Chamberlain, S. R. (2021). *Mental health in a digital world* (1st ed.).

Su, W., Han, X., Yu, H., Wu, Y., & Potenza, M. N. (2020). Do men become addicted to internet gaming and women to social media? A meta-analysis examining gender-related differences in specific internet addiction. *Computers in Human Behavior*, *113*, 106480. https://doi.org/10.1016/j.chb.2020.106480

Theopilus, Y., Al Mahmud, A., Davis, H., & Octavia, J. R. (2024). Preventive interventions for internet addiction in young children: Systematic review. *JMIR Ment Health*, *11*, e56896. https://doi.org/10.2196/56896

Wong, H. Y., Mo, H. Y., Potenza, M. N., Chan, M. N. M., Lau, W. M., Chui, T. K., … Lin, C. Y. (2020). Relationships between severity of internet gaming disorder, severity of problematic social media use, sleep quality and psychological distress. *International Journal of Environmental Research and Public Health*, *17*(6). https://doi.org/10.3390/ijerph17061879

Yoo, H. J., Cho, S. C., Ha, J., Yune, S. K., Kim, S. J., Hwang, J., … Lyoo, I. K. (2004). Attention deficit hyperactivity symptoms and internet addiction. *Psychiatry and Clinical Neurosciences*, *58*(5), 487–494. https://doi.org/10.1111/j.1440-1819.2004.01290.x

Zare-Bidoky, M., Baldacchino, A. M., Demetrovics, Z., Fineberg, N. A., Kamali, M., Khazaal, Y., … Ekhtiari, H. (2025). Problematic usage of the internet: Converging and diverging terminologies and constructs. *Journal of Behavioral Addictions*.

Appendix

Collaborators:

ISAM-GEN Societies' Experts: Wole Akosile[1] (oluwaseun.akosile@uq.edu.au), Rabia Bilici[2] (bilicirabia@gmail.com), Sari Castrén[3,4,5] (sari.castren@thl.fi), Steven KimWeng Chow[6] (drstevenchow@gmail.com), Massimo Clerici[7] (massimo.clerici@unimib.it), Rui Manuel Vieira Gomes Correia[8] (rmcorreia_56@hotmail.com), Alessandra Diehl[9] (alediehl@terra.com.br), Nkereuwem William Ebiti[10] (billebiti@gmail.com), Ali Farhoudian[11] (farhoudian@yahoo.com), Dario Gigena Parker[12] (gigenaparker@gmail.com), Jeffrey Gonzalez Giraldo[13] (hugogzzz@yahoo.com), Hugo González-Cantú[14] (hugogzzz@yahoo.com), Marie Grall-Bronnec[15,16] (marie.bronnec@chu-nantes.fr), Wei Hao[17] (weihao57@gmail.com), Darius Jokūbonis[18,19] (darius.jokubonis@gmail.com), Alexander Ivanov Kantchelov[20] (al.kantchelov@gmail.com), Emira Khelifa[21] (emira.khelifa@fmt.utm.tn), Evgeny Krupitsky[22] (kruenator@gmail.com), Seung-Yup Lee[23,24] (solero82@gmail.com), David Robert Martell[25] (david.martell@nshealth.ca), Garrett Gregory McGovern[26] (drmcgovern@prioritymedicalclinic.ie), Belinda Julivia Murtani[27] (belindamurtani@yahoo.com), Valgerður Rúnarsdóttir[28] (valgerdurr@saa.is), Bigya Shah[29] (shahbigya@gmail.com), Wilco Sliedrecht[30,31] (w.sliedrecht@dehoop.org), Alireza Valyan[32] (valyan@gmail.com), Anna Maria Vella[33] (anna-maria.a.vella@gov.mt), Salvador Benjamin Dimaya Vista[34] (benjaminvista@gmail.com), Melvyn Weibin Zhang[35] (melvyn_wb_zhang@imh.com.sg)

1. National Centre for Youth Substance Use Research, Faculty of Health and Behavioural Sciences, University of Queensland, Herston, Australia.
2. Faculty of Medicine, Department of Psychology, Istanbul Ticaret University, Istanbul, Türkiye.
3. Finnish Institute for Health and Welfare, Department of Public Health and Welfare, Helsinki, Finland.
4. Social Sciences Department of Psychology and Speech-Language Pathology Turku, University of Turku, Turku, Finland.
5. Department of Medicine, University of Helsinki, Helsinki, Finland.
6. Addiction Medicine Association of Malaysia, Kuala Lumpur, Malaysia.
7. Italian Society of Addiction Psychiatry (SIPDip), Milan, Italy.
8. Associação Portuguesa da Medicina da Adição (APMA), Lisbon, Portugal.
9. Brazilian Association for the Study of Alcohol and Other Drugs, Porto Alegre, Rio Grande do Sul, Brazil.
10. Nigerian Society of Addiction Medicine, Nigeria.
11. Department of Psychiatry, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran.
12. Public Health School, Faculty of Medical Science, National University of Cordoba, Cordoba, Argentina.
13. Asociación Colombiana de Psiquiatría (ACP), Universidad del Rosario Bogotá-Colombia (CERSAME), Bogota, Colombia.
14. International Society of Addiction Medicine, Calgary, Canada.
15. Nantes Université, CHU Nantes, Institut Fédératif des Addictions Comportementales, F-44000 Nantes, France.
16. Nantes Université, Univ Tours, CHU Nantes, INSERM, MethodS in Patients centered outcomes and HEalth ResEarch, SPHERE, F-44000 Nantes, France.
17. Mental Health Institute, Central South University, Changsha, China.
18. Lithuanian University of Health Sciences, Kaunas, Lithuania.
19. Republican Center for Addictive Disorders, Vilnius, Lithuania.
20. The Kantchelov Clinic, Sofiya, Bulgaria.
21. Société Tunisienne d'addictologie, Faculty of medicine of Tunis, University Tunis el manar, Tunis, Tunisia.
22. Russian Psychiatric Association, Russia.
23. Department of Psychiatry, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea.
24. Korean Academy of Addiction Psychiatry (KAAP), Republic of Korea.
25. Canadian Society of Addiction Medicine, Calgary, Alberta, Canada.
26. Irish Chapter of International Society of Addiction Medicine (IRE-ISAM), Dublin, Ireland.
27. Addiction Psychiatry Section, Indonesian Psychiatric Association, Indonesia.
28. SAA addiction medicine treatment centers, Iceland.
29. Department of Psychiatry, School of Medicine, Patan Academy of Health Sciences, Nepal.
30. Netherlands Society of Addiction Medicine, Netherlands.
31. De Hoop Foundation, Netherlands.
32. Faculty of Management and Accounting, Shahid Beheshti University, Tehran, Iran.
33. Foundation for Social Welfare Services (FSWS), Sedqa, Santa Venera, Malta.
34. Philippine Addiction Specialists Society (PASS), Philippines.
35. National Addictions Management Service, Institute of Mental Health, Singapore.