



ΕΛΛΗΝΙΚΗ  
ΨΥΧΙΑΤΡΙΚΗ  
ΕΤΑΙΡΕΙΑ



# HELLENIC (UK) PSYCHIATRIC BULLETIN

(THE DIVISION'S NEWSLETTER)  
VOLUME 5 NUMBER 1 – June 2015

HELLENIC PSYCHIATRIC ASSOCIATION (UK DIVISION)

# HELLENIC (UK) PSYCHIATRIC BULLETIN

---

## Editors

Maria Filippidou, MB BS, MSc, MRCPsych

*Specialist Registrar in Adult Psychiatry, North Central London Specialist Scheme,  
email: [maria.filippidou@nhs.net](mailto:maria.filippidou@nhs.net)*

Konstantinos Ioannidis MD, MSc, MRCPsych

*Clinical Research Associate, University of Cambridge,  
Department of Psychiatry, Douglas House, 18b Trumpington Road, Cambridge, CB2 8AH, Tel 01223 746003 email: [ioannik@doctors.org.uk](mailto:ioannik@doctors.org.uk)*

The HELLENIC (UK) PSYCHIATRIC BULLETIN is electronically distributed to the members of the Hellenic Psychiatric Association (UK DIVISION). Material publicized here are not free to store, transmit and reproduce for use by any form or means by anyone without explicit authorization.

Disclaimer: The authors and editors will not accept any legal responsibility for any errors or omissions that may be made in this publication. If you think that any of the material published here violates your copyrights please contact the editors.

Front cover and layout of Hellenic (UK) Psychiatric Bulletin and HPA-UK Psychiatric Bulletin logos were designed by Konstantinos Ioannidis.

The Hellenic Psychiatric Association (HPA) was founded in 1986 in Athens. HPA's mission is to promote the discipline of Psychiatry in Greece, to open lines of communication and encourage collaboration not only within psychiatry, but also with other medical, or psychiatry-related specialties. Among HPA's scopes is to promote and enhance excellence in psychiatric clinical practice in Greece, to assist in the prevention of mental illness, to protect the rights of the mentally ill and to promote education and research.

HPA Contact details: 11 Papdiamantopoulou St. 115 28 Athens Greece Tel.: (301) 7291389, Fax: (301) 7242032 E-mail: [psych@psych.gr](mailto:psych@psych.gr)  
HPA website: <http://www.psych.gr> (information from [http://www.wpanet.org/detail.php?section\\_id=5&content\\_id=228](http://www.wpanet.org/detail.php?section_id=5&content_id=228))

Please think of the environment before you print this issue.

# CONTENTS

CONTENTS	2
EDITORIAL	3
CHAIR'S MESSAGE	4
World Hellenic BioMedical Association (WHBA)	5
Highlights from the 12 <sup>th</sup> World Congress of Biological Psychiatry	6
Let's talk about...	8
Feature ARTICLE	10
How to get your dream consultant psychiatrist job in 1000 words or less	16
Future EVENTS	19

## EDITORIAL

---

Maria Filippidou & Konstantinos Ioannidis  
*Editors, Hellenic (UK) Psychiatric Bulletin*

We are excited to present the latest issue of the Hellenic (UK) Psychiatric Bulletin with a brand new layout, exiting articles and references from events over the past 6 months. We would like to thank all of you who continue to make vital contributions so that the HPA Bulletin is issued every 6 months.

In the current issue we are delighted to have a feature article by Professor Jon Grant and Dr Sam Chamberlain on Gambling Disorder and Its Relationship with Substance Use Disorders; this very interesting piece of work dissects the neurobiological aspects of this uncommon presentation and maps how it relates to more known and identifiable psychiatric phenomena and especially substance use disorders.

Professor Bouras, founder and first president of the World Hellenic Biomedical Association (WHBA) writes on the 4th Summer School in Biomedical Research & Management, an annual event of great importance for undergraduate students of bioscience and medicine. Konstantinos Ioannidis writes on his experience of attending the 12th World Congress of Biological Psychiatry and gives us a very lively account of what was discussed. Our column "Let's Talk About..." hosts Professor Ikkos' experience of working in liaison psychiatry at the Royal National Orthopedic Hospital, highlighting the need for parity between physical and mental health. Finally, there is a selection (amongst plenty) of events that are taking place this autumn that you may find interesting.

We had no "Messages from members and friends" and this is why this section was not included in this issue, but we are hoping this will be reinstated when members contribute news, ideas and opinions that they may want to share with the rest of the community. We strongly encourage all of you to consider contributing to this unique piece of work that brings together Greek professionals in mental health in the UK but also maintains a link with our colleagues in Greece.

Our division's publications can be found online at [www.psych.gr](http://www.psych.gr). If you would like to contribute to our next issue, please email us on [maria.filippidou@nhs.net](mailto:maria.filippidou@nhs.net) or [ioannik@doctors.org.uk](mailto:ioannik@doctors.org.uk).

Finally, we would like to send our wishes for the summer! Enjoy the sun and the sea, for those who will visit the homeland in the next few months, and commiserations to those who won't.

Our thoughts are with Greece and the difficult times the Greeks are facing. We all hope that a workable solution will be found soon.

We hope you enjoy this issue.

## CHAIR'S MESSAGE



### **Prof Eleni Palazidou**

*Chair,  
Hellenic Psychiatric Association, UK Division*

Dear all,

2015 has not been an easy year and in recent months our thoughts have been with our fellow Hellenes back home. Greece is going through the most testing period in its economic "relationship" with Europe and Cyprus has reached a critical point in its struggle to reunite the island. Having spent a large part of the last 3 months in Cyprus I could not but share the anguish as the news and people's conversations were dominated by these two themes. Yet we need to focus on our local professional tasks and it is time for the summer issue of our bulletin.

As planned, we held the 2nd Asclepian Oration on the 23rd January 2015 at the Hellenic Centre. The oration, titled "Changing Concepts of Autism in the 21st Century"\* was eloquently delivered by Prof David Skuse, (Institute of Child Health, University College, London), a world expert on the subject. The lecture was followed by a long and lively discussion and we had excellent feedback from our audience as well as the lecturer.

The event was very well attended with all seats taken. The audience consisted mostly of psychiatrists and allied professionals but also of people with an interest on the subject for personal or educational reasons. This wider attendance was made possible by our membership to the Hellenic Centre as the event was listed on the Centre's quarterly programme. The lecture was televised by Hellenic TV and hence made accessible to the wider Hellenic community in the UK. This widens the scope of our activities. Our meetings, while maintaining the high academic and clinical standards, could also be adapted to serve as informative educational events for the wider community.

Our next event is planned for the early autumn of this year and will be devoted to the subject of learning disability.

I conclude with best wishes to all for a good summer!

Prof Eleni Palazidou  
(Chair EKA)

\* This event was covered by Hellenic TV and is available on youtube:

[https://www.youtube.com/watch?v=e1BjGDtO\\_gM](https://www.youtube.com/watch?v=e1BjGDtO_gM)

## World Hellenic BioMedical Association (WHBA)



### **Prof Nick Bouras**

*President and founding member of the WHBA*

The Summer School in Biomedical Research & Management is an annual educational activity of the WHBA. The program exposes prominent graduate and undergraduate students of medical and biosciences background, as well as postdoctoral researchers and clinical fellows and residents to knowledge given by top-notch experts in the most advanced medical and biosciences research fields. In addition, the Summer School in Biomedical Research & Management familiarizes the students with "actual life" situations that scientists from Academia or the Pharmaceutical and Biotechnology industry deal with on daily basis.

This year the 4<sup>th</sup> Summer School in Biomedical Research & Management took place in Mani (Neo Itilo) Greece 18-23 May. The scientific board of the Summer School selected 40 students of undergraduate and graduate level among 95 applicants from universities in Greece and 8 countries abroad. The students were selected according to their academic record and potential to develop to prominent figures of Academia or pharmaceutical industry. The combination of students from Greek and foreign universities aimed to generate an international youth network of excellence among prominent young trainees

from several places in the world, as well as to facilitate the establishment of future international professional and scientific networks.

The summer school concluded with the 12<sup>th</sup> World Hellenic Biomedical Congress the 24<sup>th</sup> May in Athens at the Pasteur Institute, aiming to facilitate interaction among instructors of the program on a scientific basis and identifying and supporting cores of biomedical research excellence in Greece. Nick Bouras, first president and founding member of the WHBA introduced the Congress. Professor Tom Maniatis of Columbia University, USA was the key note speaker on the "Economic benefits of basic research and biotechnology". Professor Stelios Antonarakis of Geneva University chaired the panel discussion on "Promoting Biomedical Research in Greece". The Panelists were Evi Giannakakou, Weill Cornell Medical College, Menelaos Manoussakis Pasteur Institute Athens, Dimitris Thanos Biomedical Foundation of the Academy of Athens, George Kollias Alexander Fleming Institute Biomedical Sciences Research Centre Athens, Naktarios Tavernarakis Institute of Molecular Biology and Biotechnology Heraklion Crete and Costas Drosatos Temple University USA.

# Highlights from the 12<sup>th</sup> World Congress of Biological Psychiatry

## **Konstantinos Ioannidis**

*Editor HPA (UK) Psychiatric Bulletin*

The 12<sup>th</sup> World Congress of Biological Psychiatry took place in Athens, Megaron from the 14<sup>th</sup> – 18<sup>th</sup> of June 2015; it opened with a lecture by Dr Pantelis who explored whether developmental brain changes contribute to risk and resilience in psychosis and autism. This was chaired by Prof C Soldatos, congress president and chair of the Local organizing committee.

This was followed by an excellent plenary lecture on DSM, ICD, RDoc and the future of psychiatric diagnoses. The presenter Dr Maj made a point that there is evidence to suggest that clinicians struggle to remember DSM criteria even for the commonest disorders of the manual. The atheoretical nature of the DSM construct adds a fundamental deficit to it. On top of that, it was strongly noted that the relationship between neuropathology and psychopathology is not deterministic but rather complex, nonlinear and probabilistic, which adds to the confidence crisis in the DSM paradigm. On the other hand, the more aetiopathogenic approach of RDoc lags in linking meaning and subjective experience to clinical phenomena. The presenter highlighted the risk of splitting between research relevance and clinical importance, a pitfall that we should best avoid. ICD-11 hopes to improve (or dodge) some of the DSM points of friction e.g. avoiding the use of operational criteria and especially thresholds that are not validated by empirical research.

The reasons why off-label use can be necessary, reasonable, risky or hazardous depending on the circumstances were analyzed by Dr Goodwin on his plenary lecture on the off-label use of psychotropics. An interesting point was made

when the presenter claimed (only to provoke) that bupropion can cure depressive illness in USA but can only help smoking cessation in Europe! He then focused on the off-label use of drugs in bipolar depression and supported the value of coherent network analyses to create confident comparisons between agent options (or combinations).

The links between Parkinson's disease and attention deficit hyperactivity disorder with focus on the noradrenergic system were laid down at a symposium chaired by Dr Muller. The degeneration of locus ceruleus in PD and the known noradrenergic dysfunctions in ADHD were displayed. Dr Kehagia supported that largely unmyelinated noradrenaline fibers might play role in regards to PD pathology and might lead to the development of novel treatments for PD related cognitive impairment i.e. with the use NA boosting agents like atomoxetine.

The third day started with a thorough plenary lecture by Dr Lyketsos on the neuropsychiatric syndromes of later life. The aspects of neurodegeneration and the neurobehavioral underpinnings of agitation and psychotic symptoms in dementia were discussed in a naturalistic framework. Agitation in dementia is now regarded by the FDA as a clinical entity and a target pharmacotherapy. Possible novel agents (or novel use of well-known agents) include SSRIs (citalopram, escitalopram) for subgroups characterized by affective dyscontrol whereas dextromethorphan/ quinidine for subgroups characterized by executive dyscontrol.

An interesting debate on behavioral addictions took place; Drs Potenza and Voon argued whether behavioral addictions represent normality or deviance. Essentially the debate turned into an agreement of the proponent side, as both speakers supported the merits of classifying behavioral addictions with the rest of the psychiatric disorders. The differences that exist with impulse control disorders were discussed as well as difficulties in characterizing complex phenotypes and endophenotypes (i.e. cognitive endophenotypes) that are sought in behavioral addictions.

Yet another debate ended in both sides aligning to the proponent side; this was the debate of whether children are overmedicated. Both speakers and the chair Dr Biederman considered the merits of delivering effective medication treatments in young ages as outweighing the potential disadvantages, although the discussion focused most on ADHD and early onset bipolar disorder.

The last day of the conference featured a plenary talk by Dr Ressler on the neurobiological correlates of fear and anxiety and their clinical implications. The evolutionary origins of fear and its usefulness were opposed to the dysregulation of the same mechanisms that contribute to the development of anxiety disorders. Those mechanisms include a hyperactive amygdala, a decreased serotonergic tone (raphe nucleus) and increased noradrenergic tone (locus ceruleus). The role for FKBP5 in posttraumatic stress disorder, depression and anxiety was discussed in critical periods of emotional development i.e. amygdala activation periods. Novel treatments like enhancer of the NMDA receptor for anxiety disorders or drugs that could influence the genetic pathways of the fear response were explored.

A very interesting symposium took place at Trianti Hall on the development of biomarkers for neuropsychiatric disorders, chaired by N Koutsouleris and C Davatzikos. Dr Palaniyappan showed us his attempts to utilize machine learning pattern classification in clinical settings and more specifically on how to differentiate bipolar affective disorder from schizophrenia in a population referred to early psychosis services. Dr Pantelis explored the field of genetics as biomarkers of risk and resilience, he focused on schizophrenia and autism. Dr Peter explained how support vector machines for pattern recognition can be applied in real clinical scenarios to help diagnosis in cases of neurodegenerative disorders. All presenters highlighted the increasing challenge when multiple pathologies or possibilities of pathologies are being considered.

Last but not least, a FORUM **achieving interaction among Greek scientists involved in Biological psychiatry worldwide** attracted world-class scientists of the Hellenic diaspora who gathered in a single unique session and had the opportunity to share knowledge, experiences, achievements and future plans. V.Vrakoulis (Australia), PT Daniolos (USA), M Filiou (Germany), A Halaris (USA), C Lyketsos (USA), M Mavrikaki (USA), K Patas (Germany), C Pantelis (Australia), G Petrides (USA), C Phassouliotis (Australia), Y Trakadis (Canada), D Velakouls (Australia), N Venizelos (Sweden) presented their work and discussion among all participants followed.

*Disclaimer: this article represents a personal reflection on the WFSBP 2015 and any omissions or misrepresentations of material relating to the congress are either coincidental or non-intentional.*

## Let's talk about...

### **Prof George Ikkos,**

Past Chair Hellenic Psychiatric Association, UK Division



### **Mental Health Awareness Week 11th – 17th May 2015**

#### **11 May 2015**

Mental Health Awareness Week is marked on 11th – 17th May this year. Here, Professor George Ikkos, Consultant Psychiatrist at the RNOH, talks to us about the importance of looking after our patients' emotional as well as physical well-being, and our duty to combat stigma around mental health.

There are two consultant psychiatrists at the Trust working part-time – myself and Dr Sara McNally. We are supported by our invaluable secretary Melanie Smith.

Globally, musculoskeletal conditions and neuropsychiatric conditions are the two most common causes of disability. They are the reasons why people don't go to work, or why they can't perform as parents, or function properly at work or home. As both musculoskeletal and neuropsychiatric problems are common, they often occur together in the same patient and we help ensure good all-around care.

We work closely with staff throughout the hospital and we have excellent support from management here – Rob Hurd the Chief Executive has been very supportive and so have all the Medical Directors that we have worked with since 1998, from Mr Ian Bailey to Prof Tim Briggs to our current Medical Director, Mat Shaw.

We're a support service for surgeons, pain consultants and rehabilitation physicians working in the hospital. We make sure that when patients

have mental health needs they're addressed for two reasons: first, because it makes for better outcomes all around, and secondly, because it improves the patient experience. Sometimes we may get referrals well before admission from surgeons for patients with known mental health problems and they want to have in place the right support when the patient arrives. Sometimes surgeons refer patients so that we can help prevent mental health problems altogether by planning carefully for support during admission.

We work with inpatients and outpatients with a range of needs. For example, people on the surgical wards who may become acutely confused after an operation because of the anaesthetics, patients who may be feeling anxious, depressed or suicidal because of fear or sad news about their illness or other reasons; or patients who are addicted to alcohol or drugs that may cause behavioural disturbance. We work with spinal cord injury patients to ensure they are mentally at their best to take advantage of rehabilitation. We also see chronic pain patients who have various psychiatric issues such as stress, trauma, anxiety and depression, or sometimes personality disorders or somatoform disorders. We're also here to make sure staff don't get stressed because of the behaviour, mood or mental state of patients.

We work particularly closely with the rehabilitation and the chronic pain teams and the psychologists in these teams. In terms of care at the body-mind interface, I think this hospital has

very high standards. We have been meeting with the chronic pain physicians and psychologists once a month to discuss cases to learn from each other and provide better care; we found this so useful that we recently decided to meet twice a month. Once a week we have a psycho-social ward round with rehabilitation physicians, therapists and nurses on the Spinal Cord Injuries Centre, so that everyone who comes in to have rehab is discussed in appropriate depth to make sure the team provides maximum emotional as well as physical care to our patients.

We have also developed SNAPS – the Stanmore Nursing Assessment of Psychological Status. It's a one-page rating scale for nurses to monitor the mental state of their patients and to make sure that those who are distressed or frightened or angry, can voice their feelings and be cared for in a sympathetic way. Four or five times every year we put on special training events for SNAPS, including role-play and lectures – it's really about communication skills and we get fantastic feedback from the nurses who take part. We also have a manual that goes with SNAPS for the nurses. After eight years of research, we're just about to submit a paper for publication in the Scientific Journal and in that respect I think we are pioneers in the emotional care of patients by nurses.

There are times when a patient requests amputation because of a health problem and the surgeons ask us to help them assess whether that patient has the mental capacity to make the right decisions. It's now standard procedure, as part of our pre-admission process at the RNOH, for older patients' cognition to be checked through the '6 Item Cognitive Impairment Test' (6CIT). And that's very good because it means we can make sure that patients have the mental capacity to make decision and, if not, that their best interests are safeguarded.

Parliament has legislated that physical health and mental health are of equal importance and should have parity of esteem. If we don't adequately address mental health issues it may lead to poor care. One of our key aims is to make sure people with mental health problems have an equal chance to be admitted and have the right orthopaedic treatment – and once they are here, to have an equally good experience as non-mental ill patients.

Unfortunately, mental illness is still stigmatised and that leads to people who need and can benefit from treatment not accessing it. People don't want the label of depression or anxiety and yet that is what is taking them to the orthopaedic specialist or the pain specialist. Often this can lead to them not receiving the best treatment. So, it is really important that we combat stigma. We have prepared a special leaflet on Body and Mind: a Psychiatric Perspective to help clinicians understand the relation between the two and help combat stigma.

The Royal College of Psychiatrists' website also has brilliant health advice and a great range of mental health leaflets for patients and carers. It's an essential resource for anyone who may have concerns either about their own or someone else's mental health.

*Disclaimer: This article was originally published in the Royal National Orthopedic Hospital website <https://www.rnoh.nhs.uk/home/news/mental-health-awareness-week-11th-17th-may-2015>*

## Feature ARTICLE

Originally published at the  
American Journal on Addictions, 24: 126–131, 2015

Licence to re-publish obtained by JOHN WILEY AND SONS. Please refer to the original for references

### **Gambling Disorder and Its Relationship with Substance Use Disorders: Implications for Nosological Revisions and Treatment**

**Jon E. Grant, MD, JD, MPH,<sup>1</sup> Samuel R. Chamberlain, MD, PhD, MRCPsych<sup>2,3</sup>**

<sup>1</sup>Department of Psychiatry and Behavioral Neuroscience, University of Chicago, Chicago, Illinois

<sup>2</sup>Department of Psychiatry and MRC/Wellcome Trust Behavioural and Clinical Neurosciences Institute, University of Cambridge, Cambridge, UK

<sup>3</sup>Cambridge and Peterborough NHS Foundation Trust, Cambridge, UK

**INTRODUCTION** Gambling disorder (otherwise known as pathological gambling) is a psychiatric condition characterized by persistent and recurrent maladaptive patterns of gambling behavior, leading to impaired functioning. It is associated with reduced quality of life, and high rates of bankruptcy, divorce, and incarceration.<sup>1</sup> Although most people who engage in one or more forms of gambling do so responsibly and without undue negative impact on life, some individuals find that they become preoccupied with gambling and it has multiple negative consequences. For these people, their gambling behavior has devastating consequences that impact the individual, his or her family, and society.<sup>2</sup> National studies and one meta-analysis of state and regional surveys suggest that the prevalence of gambling disorder in the general United States population ranges from .42% to 1.9%.<sup>3,4</sup> Similar rates of gambling disorder have been reported in other countries.<sup>2</sup> Data also suggest that money spent on gambling around the world, both online and in gambling establishments, has grown steadily over the last 20 years.<sup>5</sup> With the growth of gambling opportunities may come increased problematic gambling behavior. Individuals seeking treatment for substance use disorders (SUDs) may be particularly vulnerable to developing a gambling disorder.<sup>6</sup> As such, recognition of gambling disorder, its relationship to SUDs, and its treatment appear worth of attention from a global public health perspective. Far from being an exclusively modern formulation, excessive

gambling behaviors have been reported for millennia across cultures and have been discussed in the medical literature since the early 1800s.<sup>2</sup> However, pathological forms of gambling have only been recognized fairly recently by psychiatric nosological classification systems. Though recognized by both Kraepelin and Bleuler, disordered gambling behavior was first formally recognized with the inclusion of pathological gambling as a “Disorder of Impulse Control” in the Diagnostic and Statistical Manual Version III (DSM-III).<sup>7</sup> Subsequent revisions of DSM modeled the diagnostic criteria on those of substance dependence, recognizing the phenomenological parallels between these two types of disorder. The disorder was categorized as an “Impulse-Control Disorders Not Elsewhere Classified,” along with other disorders such as kleptomania, pyromania, and trichotillomania. The Diagnostic and Statistical Manual version 5 (DSM-5; [www.dsm5.org](http://www.dsm5.org), 2012) reflects an important departure from DSM-IV-TR<sup>8</sup> as the current chapter “Substance-Related and Addictive Disorders” now includes Gambling Disorder, formerly listed with the “Impulse Control Disorders Not Elsewhere Classified” ([www.dsm5.org](http://www.dsm5.org), 2012). The placement of gambling disorder in the most recent nosological revision is likely to improve recognition of the disorder, especially among substance abusers who are at high risk for gambling problems.<sup>6</sup> The name has been changed from pathological gambling to “gambling disorder,” mainly to reduce stigma

attached to the word “pathological.” The DSM-5 diagnosis requires that four of nine symptoms be endorsed to qualify for the diagnosis of gambling disorder. This is a change from DSM-IV-TR wherein 5 of 10 symptoms were required. DSM-5 eliminated the symptoms that the gambling resulted in illegal acts as it has been shown to have a low prevalence with its elimination having little or no effect on the information associated with the diagnosis. As with the DSM-IV, the criteria for gambling disorder mirror those used for the SUDs: tolerance (needing to gamble with increasing amount of money), withdrawal (restless or irritable when cutting back), and compulsive use (preoccupied with gambling, chasing losses, repeated unsuccessful attempts to cut control gambling, and gambling as a way of escaping from problems) are the cardinal features. The adverse consequences of addiction are also reflected in the remaining symptoms (lying to others, jeopardizing important relationships, and relying on others financially). Unlike the DSM-5 SUDs which have been modified to include craving or urge as a possible diagnostic criterion, no such addition was made for gambling disorder. There exist several comprehensive reviews of specific aspects of gambling disorder.<sup>9–14</sup> In view of recent proposed reclassification of pathological forms of gambling alongside SUDs, the aim of this article is to provide a concise primer examining overlap between gambling disorder and the SUDs, incorporating very recent evidence derived from the neurosciences. We highlight implications for neurobiological models and new treatment directions, along with limitations of this approach and areas in which research is lacking.

**Phenomenology and Clinical Features** Diagnostic criteria for DSM-5 gambling disorder show substantive parallels with those for SUDs, reflecting the derivation of former criteria from those for the latter. Both sets of criteria include inter alia preoccupation, tolerance, repeated unsuccessful attempts to stop the pathological behavior, restlessness/irritability when attempting to resist the pathological behavior, and escalation (eg, in frequency or “amount”) over time. Only a small proportion of the individuals who are suffering from

gambling disorder seek formal treatment.<sup>15</sup> Approximately, one-third of individuals with gambling disorder recover from their illness episode without accessing formal treatment services<sup>16</sup> (similar to the rates seen in other addictive disorders, such as alcohol use disorders<sup>17</sup>). Gambling usually begins in childhood or adolescence, evolving into pathological forms into early adulthood, with males tending to start at an earlier age.<sup>1,18</sup> This is also the case for many manifestations of SUDs.<sup>19</sup> Both SUDs and gambling disorder are more frequently observed in men, with a telescoping phenomenon observed in females (ie, women have a later initial engagement in the addictive behavior, but foreshortened time period from initial engagement to addiction).<sup>20</sup> Although prospective studies are largely lacking, gambling disorder appears to follow a trajectory similar to that of substance dependence, with high rates in adolescent and young adult groups, lower rates in older adults, and periods of abstinence and relapse.<sup>16</sup> Both female and male gamblers report that advertisements are a common trigger of their urges to gamble,<sup>1,21</sup> a finding redolent of substance addictions in which conditioning is central to understanding and treatment: exposure to environmental stimuli previously linked with the substance can trigger such urges to re-engage (“craving”).<sup>22,23</sup> Many gamblers experience severe financial, social, and/or legal problems,<sup>1</sup> as do people with SUDs ([www.dsm5.org](http://www.dsm5.org), 2012). Both lead to work-related problems such as absenteeism, poor performance, and unemployment.<sup>24</sup> Many individuals with gambling disorder report the need for psychiatric hospitalization owing to depression and related suicidality brought on by their gambling losses.<sup>25–27</sup> The often overwhelming financial consequences and guilt associated with gambling disorder may also contribute to attempted or completed suicide. A study of Gamblers Anonymous (GA) participants (recruited through a gambling telephone hotline) found that 17–24% reported having attempted suicide due to gambling.<sup>28</sup> SUDs are amongst the psychiatric disorders most predictive of suicidality and self-harm, second only to depression, which of course is

also common in individuals with gambling disorder.<sup>29–31</sup>

**Comorbidity** Psychiatric comorbidity is common in individuals with gambling disorder. Frequent co-occurrence has been reported between SUDs (including nicotine dependence) and gambling disorder, with the highest odds ratios generally observed between gambling and alcohol use disorders.<sup>5,31–35</sup> Among clinical samples, 52% of GA participants reported either alcohol or drug abuse, and 35–63% of individuals seeking treatment for gambling disorder also screened positive for a lifetime SUD,<sup>36</sup> rates notably higher than that found in the general population (26.6%).<sup>37</sup> Studies also demonstrate that individuals with gambling disorder have high rates of lifetime mood (60–76%), anxiety (16–40%), and personality (87%) disorders, particularly anti-social personality disorder.<sup>38,39</sup> Elevated rates of other behavioral addictions (compulsive buying and compulsive sexual behavior) have also been found.<sup>38</sup> In a systematic review and meta-analysis of the available population surveys exploring comorbid disorders in individuals with gambling disorder,<sup>40</sup> the strongest associations were with nicotine dependence (mean co-morbidity of 60.1% of subjects), followed by SUDs in general (57.5%), followed by any mood disorder (37.9%).

**Familiality** Psychiatric disorders are common in the first-degree relatives of those with gambling disorder, particularly mood, anxiety, substance use, and antisocial personality disorders. For example, earlier studies reported alcohol use disorder in 18–50% of first-degree relatives of people with gambling disorder. More recent studies have incorporated control groups. Black and colleagues examined 31 gamblers, 31 control subjects, and first-degree relatives,<sup>41</sup> thereby quantifying familial aggregation of psychiatric disorders. Lifetime estimates of gambling disorder were significantly higher in family members of gamblers (8.3%) compared to control subjects (2.1%; odds ratio of 4.49). Similarly elevated estimates were observed for SUDs (odds ratio of 4.21). In a separate study conducted in males with gambling disorder (n=52)

and their first-degree relatives (n=93), higher prevalence of SUDs, problematic gambling, depression, and anxiety disorders were found in first-degree relatives of people with gambling disorder versus first-degree relatives of controls.<sup>42</sup> Twin studies also support etiological overlap between gambling disorder and SUDs. Using the Vietnam Era Twin Registry (male adults), statistical models were used to determine whether risk factors for DSM-III-R pathological gambling overlapped with those for alcohol dependence.<sup>43</sup> The authors found that 12–20% of genetic and 3–8% of non-shared environmental variation in risk for pathological gambling was accounted for by risk of alcohol dependence. Data from the national Australian Twin Registry were used in conjunction with statistical models to examine whether genetic risk factors for disordered gambling were shared with alcohol use disorders.<sup>44</sup> Genetic correlations between these conditions were 0.29–0.44, being particularly strong in males, suggesting that up to two-thirds of the association was attributable to shared genetic vulnerability. The latter study considered both DSM-IV and DSM-5 definitions for gambling disorder/pathological gambling.

**Neurocognition** The behaviors that characterize problematic gambling (eg, chasing losses, preoccupation with gambling, inability to stop) are suggestive of underlying problems with cognitive functions dependent on the integrity of fronto-striatal circuitry.<sup>45,46</sup> Such behaviors are impulsive in that they are often premature, poorly thought out, risky, and result in deleterious long-term outcomes.<sup>47–49</sup> Deficits across multiple dissociable cognitive functions have been identified in people with pathological gambling versus healthy controls, including in aspects of inhibition, working memory, planning, cognitive flexibility, and time management/estimation.<sup>2,14</sup> Studies examining gambling disorder and SUDs have found that both groups are characterized by diminished performance on inhibition, time estimation, cognitive flexibility, decision making, spatial working memory, and planning tasks.<sup>48</sup> A temporal relationship, however, has not been established between cognitive deficits and clinically significant

symptoms, and these deficits could occur in people “at risk” before symptoms develop, or alternatively stem from the disorder itself, perhaps even reflecting a secondary or indeed incidental epiphenomenon. Most likely, some cognitive deficits predispose (perhaps running in families and representing candidate endophenotypes or intermediate markers of risk<sup>49,50</sup>), while others could be a consequence of recurrent engagement in gambling itself. Certainly some aspects of cognitive dysfunction appear to occur not only in people with SUDs but also in their clinically unaffected first-degree relatives.<sup>51</sup> While studies of cognitive functioning in unaffected close relatives of people with gambling disorder are lacking, findings from people “at risk” of gambling disorders suggest that deficits in decision-making (dependent on neural circuitry including the orbitofrontal and insular cortices) are evident before the illness, while some other domains may be relatively spared.<sup>52,53</sup> Gambling addiction represents a useful heuristic model for exploring the “cause versus effect” issue in addiction more broadly, since gambling of itself is presumably relatively unlikely to subtend toxic effects on the brain, as compared to deleterious effects on brain function expected with recurrent use of (at least some types of) illicit substances.

### **Neurobiology and Pharmacotherapy Treatment**

Multiple neurotransmitter systems have been implicated in the pathophysiology of gambling disorder and in SUDs. Dopamine is involved in learning, motivation, and the salience of stimuli, including rewards. Alterations in dopaminergic pathways have been proposed as underlying the seeking of rewards (ie, gambling; addictive substances) that trigger the release of dopamine and produce feelings of pleasure.<sup>54</sup> Neuroimaging studies in gambling disorder have demonstrated diminished ventral striatum and ventromedial prefrontal cortex/ventrolateral prefrontal cortex activity during rewarding events.<sup>55,56</sup> Dopamine antagonists acting on D2/D3 receptors, however, enhance gambling-related motivations and behaviors in patients with gambling disorder and have no efficacy in the treatment of gambling disorder.<sup>57-59</sup> There is a strong body of preclinical

evidence arising from over two decades of animal studies suggesting a critical role for glutamate transmission and glutamate receptors in drug reward, reinforcement, and relapse.<sup>60,61</sup> Some data from cerebrospinal fluid studies also suggest a dysfunctional glutamate system in gambling disorder.<sup>62</sup> Medications that possess a glutamatergic mechanism of action (acamprosate, N-acetyl cysteine, gabapentin, lamotrigine, memantine, modafinil, and topiramate) have shown benefit for SUDs and have some limited but promising data for gambling disorder.<sup>63,64</sup> Although no medication has received regulatory approval in any jurisdiction as a treatment for gambling disorder, there have been 18 double-blind, placebo-controlled trials of various pharmacological agents (opioid antagonists, glutamatergic agents, antidepressants, mood stabilizers). A meta-analysis of randomized trials included 16 outcome studies, published between 2000 and 2006 found that pharmacological treatments were more effective than placebo treatment at post-treatment (overall effect size $\frac{1}{4}$ .78).<sup>65</sup> Research on the use of opioid antagonists, which have a long history in the treatment of substance addictions, has yielded the most promising results for gambling disorder. These medications modulate dopaminergic transmission in the mesolimbic pathway and decrease the urges to gamble as well as the gambling behavior itself.<sup>64</sup> Pooled analyses of those who responded to opioid antagonists demonstrated significant reduction in gambling urges, particularly among participants with a positive family history of alcohol dependence.<sup>66</sup> Other agents, such as those that improve glutamatergic tone in the nucleus accumbens and thereby reduce reward-seeking behavior in addictions, or atypical stimulants that reduce impulsivity, may also be promising treatment approaches for gambling disorder just as they are for substance addictions.<sup>64</sup>

### **Psychosocial Treatments**

Brief treatments (eg, telephone-based motivational interviewing, self-help cognitive-behavioral therapy workbook) have shown short and long-term benefit (ie, at 1 and 2 year follow-up) for people with

gambling disorder.<sup>67,68</sup> Positive findings have been reported for similar treatments in SUDs.<sup>69-71</sup> In terms of longer psychosocial treatments, a meta-analysis identified 22 randomized trials in gambling disorder, published between 1968 and 2004.<sup>72</sup> Psychological treatments were more effective than no treatment immediately following treatment and/or at follow-up (average follow-up was 17 months later; overall effect size =1.59). Most of the treatment studies involved behavioral, cognitive, or cognitive-behavioral therapy. In a Cochrane review of CBT studies in gambling disorder, meta-analysis was suggestive of medium-large effect sizes.<sup>73</sup> Meta-analysis of effect sizes for psychosocial treatments for SUDs showed variable effect sizes depending on the type of treatment and particular SUD under scrutiny, with largest effects reported for CBT plus contingency management; and in the context of cannabis misuse.<sup>71</sup> Although borrowing from treatment studies for SUDs, the evidence-based psychosocial treatments for gambling disorder have not aligned identically with traditional substance addiction treatment. Traditional treatment for SUDs has relied on detoxification, group counselling and education, and strong links to 12-step programs. The field of gambling treatment has relied more on the use of individual psychosocial treatment, and research supports the use of many of the same modalities of treatment (eg, motivational interviewing, CBT, relapse prevention). Although perhaps accessed less frequently than in the case of SUDs, 12-step programs are widely available for individuals with gambling disorder. GA was conceived in 1957 in Los Angeles and currently operates in at least 55 countries worldwide. Individuals use a program of 12 steps and 12 traditions, modified from Alcoholics Anonymous (AA), to acknowledge powerlessness over compulsive gambling and to remain gambling-free. The groups promote a sense of common purpose and understanding as well as reinforcement of each consecutive day of abstinence from gambling. Although some data have shown that individuals affiliated with GA have better gambling outcomes than those who do not,<sup>74</sup> treatment outcome studies that have used referral to GA as a comparison condition to cognitive

behavioral treatment have shown poor GA attendance and outcomes.<sup>74,75</sup>

## CONCLUSIONS

This selective review has considered evidence for overlap between gambling disorder and SUDs from several perspectives. These two types of conditions share remarkable parallels in terms of disease onset and course, along with overlapping comorbid expression, and evidence for common etiological (genetic and environmental) factors derived from family (including twin) studies. Though head-to-head comparisons are generally lacking, impairment in certain cognitive functions (eg, relating to decision-making and reward processing) are likely shared by both types of condition, and may even represent predisposing factors occurring prior to the expression of clinically significant symptoms. Similarly, overlapping neuroanatomical and chemical systems have been implicated. These streams of research have been complemented by increasing recognition of gambling as a “behavioral addiction” in nosological classification, as indicated by its inclusion in the Substance Related and Addictive Disorders chapter of DSM-5 (www.dsm5.org, 2012). While we would argue that viewing gambling from an addiction perspective represents a useful heuristic, it is important to note that this perspective is not without its critics, nor is the salient literature free of methodological difficulties. From a phenomenological perspective, criteria for gambling disorder (and its predecessors) were derived somewhat from SUD criteria; that these two types of condition, thusly defined, share overlap in other domains could to some extent be a natural consequence of this (“circular reasoning”). Gambling disorder and SUDs show co-morbid overlap, but so too does gambling present concomitantly with other conditions (especially depression). That said, a meta-analysis of survey data found that nicotine dependence and SUDs in general appeared to be more strongly linked with gambling disorder than other disorders.<sup>40</sup> Another potential criticism of the “addiction approach” is that it tends to overlook the heterogeneity in the expression of these disorders. Also, a number of unanswered questions remain in relation to

treatments of gambling disorders and whether approaches should differ from those used to treat SUDs. For example, how should concurrent substance addiction be addressed in gambling treatment? Should different subtypes of gamblers receive different treatments? Can someone learn to moderate gambling behaviour instead of having to be abstinent? These questions need empirical examination, and it may be possible to improve our treatment outcomes through further investigation of these questions. No study has yet examined whether certain individuals with gambling disorder (such as those with vs. without comorbid SUDs) would benefit differentially from specific medications, and no research has yet determined who would benefit more from pharmacotherapy or cognitive behavioral therapy. Finally, our aim here was to provide a concise overview of key research germane to the debate, rather than a comprehensive and detailed review. As such, by necessity some topics were covered in brief and distilled. We draw the readers' attention to reviews elsewhere providing more detail of specific aspects of gambling disorder.<sup>9-14</sup> It is hoped that reclassification of gambling disorder alongside SUDs, along with complementary tiers of research

on overlap derived from neurosciences and clinical trials, will improve recognition, neurobiological models, and treatment approaches. A number of distinct treatment approaches have shown promise in helping those with gambling disorder, with large effect sizes at immediate follow-up. As access to multiple types of gambling activities increase throughout the world, more sophisticated research into gambling disorder and its treatment will be needed.

*This research was supported by a Centre for Excellence in Gambling Research grant by the National Centre for Responsible Gaming.*

### **Declaration of Interest**

The authors declare that there is no competing financial interests in relation to the submitted work. Dr. Grant has received research grant support from NIDA, NCRG, Psyadon Pharmaceuticals, Forest Pharmaceuticals, and Transcept Pharmaceuticals. He has also received royalties from American Psychiatric Publishing, Inc., Oxford University Press, Norton, and McGraw Hill Publishers. Dr. Chamberlain has consulted for Cambridge Cognition.

# How to get your dream consultant psychiatrist job in 1000 words or less

**Dr Katherine Kasiakogia Worley MBBS MRCPsych MSc**

*Consultant Forensic Psychiatrist, Newsam Centre, Seacroft Hospital, Leeds*

ST6 trainees can apply for any job, as long as the interview date is no longer than 6 months before their expected CCT date.

You should aim to reverse engineer your CV to match the likely person specification for the job you want. This includes further study, research focus, and using your special interest to gain experience that would be an asset in your future job instead of just ARCP tick boxing.

Do not neglect networking and building professional relationships with people with whom you hope to work closely in the future. An acting up in your location/ clinical area of choice is an excellent opportunity, but not essential in getting your dream job.

Consultant vacancies are advertised in:

<http://www.jobs.nhs.uk/>

The application period for very popular jobs may be cut short on receipt of sufficient number of applications. Make sure you apply early to avoid disappointment.

There is no right or wrong way to present your achievements. The clear presentation of information possibly with the use of bullet points when needed, and consistent and appropriate formatting, is recommended. Needless to say that spelling mistakes, thoughtless inconsistencies and grammatical errors will very likely eliminate your chances of success.

Readability and a structured presentation will not only help you through shortlisting, but will also speak volumes of your professional and personal qualities.

A winning strategy is to rewrite and restructure the presentation of your clinical and professional experience to suit each job you apply to, highlighting the most relevant aspects according to the person specification.

If you've done the groundwork...a few days of preparation prior to the interview date will be more than enough.

If not...

You'll need to do quite bit of reading. Your first port of call should be the job advert itself. The advert info pack will give you a lot of information on the Healthboard/Trust and the job in particular.

You should be familiar with all the latest policies and developments in your specialty locally and nationally. Most of this information is available on the RCPsych website on the relevant faculty and division webpages.

Revalidation and the GMC Good Medical Practice guidelines are also essential reading. Furthermore, a lot of information is also available on the BMA and medical defence union websites. These days there are multiple interview skills courses throughout the county. To this authors'

knowledge none of these has a specific psychiatry focus.

Nothing can possibly prepare you for the experience of interviewing for a job in front of a panel of 5-6 people. Having practiced the basic, most likely questions is likely to minimize your stress level, and allow you to best sell yourself and avoid the most awkward interview mishaps. However, no matter how encouraging and understanding interviewers are and despite their willingness to make allowances for your heightened emotional state most people who go through the process have an embarrassing interview anecdote to share after the event. If you got the job, it's a funny story to share amongst friends, if not, try to learn from the experience and forget the embarrassment.

### **Classic interview Qs**

Why have you applied for this job?

What are your plans for the future?

What challenges are you anticipating in your first year as a consultant?

How do you plan to keep up with your professional development?

How do you handle stress?

How do you keep up with new developments in your field?

Speak about an article that made a difference to your practice.

What are your research interests?

How do you manage conflict within the team?

Give an example of when your communication skills made a difference to a patient's management.

Give an example of how you innovated.

Give an example of how you've improved patient care.

The pre interview visit is an important part of the interview process although its not officially considered as such. There is a mutual benefit in the sense that it should also give you an understanding of what the job entails so that you can make an informed choice if this is really something you want to take on.

You should arrange to meet/speak with as many key people as possible such as those who'll be on the interview panel, and future co-workers and ward staff.

As a minimum you should arrange a meeting with the clinical director, medical director, chief executive, clinical lead in your specialty, ward/team manager and any consultant who you may have to cross cover.

There is no script to these meetings. The general idea is for you to find out about the job, any future developments, what kind of person they are looking for (so that you can pick to highlight the right aspects of your past experience and have a think about how your own future plans fit in), and any ongoing challenges so that you can prepare yourself and also be ready to offer your own views on future solutions at the interview.

### **The usual interview panel**

A lay member,

College assessor

Clinical director

Chief executive/ medical director

Trust consultant

## University rep

You do not need to bring your portfolio along for the interview. However, on the day you'll need to bring proof of any qualifications (MSc, Dip etc), and ID/immigration status paperwork.

You should wear something that's comfortable, classy and professional. You can't go wrong with a suit (and tie if you are a man!). No strong smells of any kind for either sex. No garish colours or extreme fashions.

You will most likely find out the outcome before the end of the day.

Not everyone gets the first job they apply for...or the second.

Never neglect to ask for feedback, this is essential in order to improve your performance next time. Never, ever forget that this is not an exam, it's an audition!

**Good luck!**

**...break a leg 😊**

## Future EVENTS

- Neuropsychiatry Faculty Annual Conference
  - Date: Thu 10 September - Fri 11 September | RCPsych, London
  - <http://www.rcpsych.ac.uk/traininpsychiatry/eventsandcourses/facultysectionconferences.aspx>
- Child & Adolescent Faculty Annual Conference
  - Date: Wed 16 September - Fri 18 September | Brighton
  - <http://rcpsych.ac.uk/traininpsychiatry/conferencetraining/conferences/childandadolescent2015.aspx>
- Intellectual Disability Faculty Annual Conference
  - Date: Wed 30 September - Thu 1 October | Newcastle
  - <http://www.rcpsych.ac.uk/traininpsychiatry/conferencetraining/conferences/intellectualdisability2015.aspx>
- 15th Congress of the International Federation for Psychiatric Epidemiology.
  - Bergen, Norway | Date: October 7-10, 2015.
  - <http://www.ifpe2015.org/>
- General Adult Faculty Annual Conference
  - Date: Thu 8 October - Fri 9 October | London
  - <http://www.rcpsych.ac.uk/traininpsychiatry/conferencetraining/conferences/generaladultpsychiatry2015.aspx>
- 4th European Conference on Mental Health 21 Oct 2015 → 23 Oct 2015 Riga, Latvia
  - <http://www.ecmh.eu>
- Eating Disorders Faculty Annual Conference
  - Date: Fri 6 November | RCPsych, London
  - <http://www.rcpsych.ac.uk/traininpsychiatry/conferencetraining/conferences/eatingdisorders.aspx>
- 4th Psychiatric Congress of Eastern Europe and the 3rd Congress of Preventive Psychiatry. 12-15 November 2015 Aegli Zappiou, Athens, Greece
  - <http://www.preventive-psychiatry2015.com>