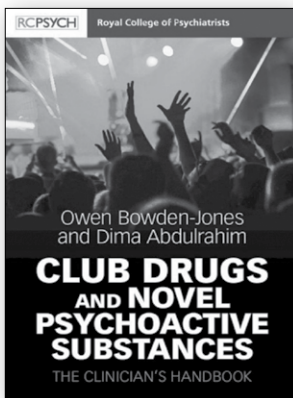


BOOK REVIEWS

Club Drugs and Novel Psychoactive Substances. The Clinician's Handbook



By Owen Bowden-Jones and Dima Abdulrahim; Cambridge, United Kingdom; Cambridge University Press; 2020; ISBN 978-1911623090; pp 130; \$32.99 (paperback).

Hundreds of new illicit drugs—otherwise known as novel psychoactive substances (NPS)—have emerged around the world during the last decade. The illicit NPS market is evolving rapidly, with 950 substances reported to the United Nations Office on Drugs and Crime as of December 2019. These substances were initially developed “to mimic the psychoactive effect of established illicit drugs such as MDMA [3,4-methylenedioxymethamphetamine] and cocaine, while avoiding legal sanctions to enable their sale by high street vendors.... Even small structural modifications to existing illicit drugs could place the modified substance outside legal

control. In most cases, however, the structural changes were not significant enough to change the basic pharmacology or the desired psychoactive effects” (p 5). Another reason for the development of NPS has been the steadily decreasing popularity of other drugs of abuse, such as heroin or crack cocaine, among youth, which are now being replaced with these new substances in settings such as nightclubs, parties, concerts, and bars. Some NPS are also used for facilitating sexual behaviors.

Our understanding of all the possible harms of these new substances is poor. We also know very little about the management of their acute and chronic use. It is quite difficult for clinicians to keep up with the research on these developments. Two British addiction specialists, Owen Bowden-Jones and Dima Abdulrahim, put together this small clinician's handbook to help us to navigate through this complex, emerging field.

The classification framework for NPS and “club” drugs serves also as a framework for the 5 parts of this book: I. Introduction; II. Stimulant Drugs; III. Depressant Drugs; IV. Synthetic Cannabinoid Receptor Agonists (SCRAs); and V. Hallucinogens. Just to illustrate the scope and complexity of the NPS field, stimulants include synthetic cathinones, piperazines, and phenethylamines (eg, amphetamines,

methamphetamine, mephedrone, MDMA, benzodifurans). Examples of depressant drugs include gamma-hydroxybutyrate (GHB), gamma-butyrolactone (GBL), ketamine, methoxetamine, and nitrous oxide. SCRAs include cannabinoid 1 and 2 receptor agonists (JWH cannabinoids and phenethylamines of the 2C family [classical, non-classical, and hybrid]). Finally, hallucinogens (agonists at 5-HT_{2A} receptors) include tryptamines, *N,N*-dimethyltryptamine, psilocybin, alpha-methyltryptamine, lysergamides (including lysergic acid diethylamide), and phenethylamines.

In addition to the history and classification of NPS, the Introduction (which includes 5 very brief chapters) also discusses the successive generations of NPS, evolving markets (increasing organizational and technical complexity, interconnectedness), the role of the internet, categorization of health harms, and management of these drugs.

The second part on stimulants covers cocaine, amphetamine-type stimulants, methamphetamine, and MDMA and other drugs with similar effects. An interesting part of the chapter on methamphetamine describes its pro-sexual effects, increased sexual drive, decreased fatigue, and loss of sexual inhibition. This leads to the discussion of “Chemsex,” which is “sex between men that occurs under the influence of drugs which are consumed immediately before and/or during the sexual session” (p 44). On the other hand, this chapter lacks more discussion of the physical harm of this substance (eg, “meth mouth”). The chapter on MDMA emphasizes that “a number of NPS have been

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developed with effects similar to those of MDMA" (p 47). The chapter includes good guidance on managing acute health harms that can affect individuals who use MDMA (eg, hyperthermia, serotonin syndrome, dilutional hyponatremia, and hyponatremic encephalopathy). The chapter on synthetic cathinones mostly discusses mephedrone and methylenedioxypyrovalerone. These synthetic cathinones seem to have a higher risk of dependence than MDMA.

The part on depressants covers GBH and GBL; fentanyl, fentanyl analogues, and other opioid NPS; new synthetic benzodiazepines; and ketamine and its analogues. The review of GBH and GBL reminds the reader of these drugs' euphoriant, relaxing, sedative, and pro-sexual effects. It also offers recommendations for the complex management of withdrawal from GHB/GBL (benzodiazepines, baclofen, maybe pharmaceutical GHB). The chapter on fentanyl and its analogues is a stern warning about the role of fentanyl in opioid overdoses. Synthetic opioids became the second most important substance group, after stimulants. The authors also emphasize that there is strong evidence that, like with other opioids, "prompt administration of the opioid receptor antagonist naloxone can reverse fentanyl-induced respiratory depression" (p 76). The discussion on benzodiazepines does not provide evidence of their abuse; however, it lists several novel illicitly sold benzodiazepines, such as diclazepam, pyrazolam, clonazolam, and others. The chapter on ketamine is very interesting. It brings the reader's attention to

physical consequence of long-term use of ketamine: serious damage to the entire urinary tract, particularly ulcerative cystitis. "The urological syndrome associated with ketamine use includes dysuria, hematuria, polyuria, urge incontinence, nocturia, obstruction of the upper urinary tract, papillary necrosis and renal dysfunction. Ulceration of the bladder wall can lead to scarring, which in turn reduces bladder function and can, when severe, require reconstructive surgery" (p 84). One wonders whether patients know about this, and whether this could also be a complication of long-term treatment with esketamine.

The chapter on synthetic cannabinoid receptor agonists notes that these cheap and potent intoxicants, which mimic the effects of cannabis, are frequently used by individuals who are homeless and prisoners. Interestingly, some SCRA were originally developed by universities and pharmaceutical companies.

Finally, the chapter on hallucinogens starts with the notion that there is an increased interest in the therapeutic use of hallucinogens in a controlled setting (eg, treatment-resistant depression, anxiety, palliative care). The chapter also reviews microdosing (ie, "the use of a dose of hallucinogenic drug that is too small to cause intoxication or significant alteration of consciousness" [p 101]) in hope that this affects mood and cognition in positive ways. The chapter ends by discussing acute and chronic harms of hallucinogens, namely hallucinogen persisting perception disorder.

The concluding remarks suggest that frontline clinical staff who treat patients who use NPS should try "to identify the broad psychoactive category (stimulant, sedative, or hallucinogen) and use clinical guidance and protocols available for established drugs in these categories. In doing so, clinicians should be able to formulate initial treatment approaches" (p 107). The authors also warn about the unexpected severe harms of NPS, such as urological damage with prolonged ketamine use, severe withdrawal in people who are GBH-dependent, psychotic symptoms with SCRA, and "wooden chest" with fentanyl analogues.

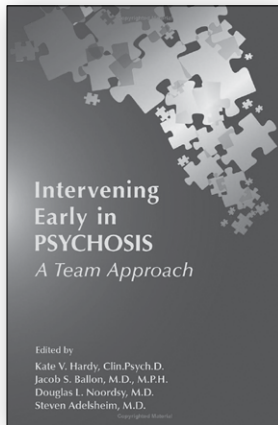
This is an interesting, small guide. The chapters are generally very brief, although some include good clinical vignettes. The book is focused mostly on the British and perhaps a bit on the European audience. However, it contains a lot of interesting and important information for clinicians in the United States and other parts of the world. It definitely brings the reader's attention to the growing area of NPS and all their dangers. Reading this little book, one cannot avoid being amazed by how much energy and resources that humanity spends in its quest for ultimate pleasure from substances and activities that could ultimately lead to its destruction.

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DISCLOSURE: Dr. Balon is a member of the American Psychiatric Association Publishing Editorial Board.

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Intervening Early in Psychosis. A Team Approach



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One of the many quests of clinical psychiatry is timely intervention in psychosis, which hopefully prevents full development of the first episode and may also improve the prognosis. This process includes an accurate diagnosis of prodromal psychotic illness (mostly schizophrenia) and selection of the best (preferably team) intervention. The difficulty of this process is the fact that the illness usually develops for a period of time before full psychosis emerges. The initial prodromal symptomatology is not necessarily what represents full-blown psychosis or schizophrenia. “The term *prodrome* is derived from the Greek words *pro* (before) and *dromos* (running), with *prodromos* meaning ‘precursor.’ In

contemporary medicine, the term prodrome is used to describe an early symptom indicating the onset of a disease or illness. Formal diagnosis of a prodromal state is made retrospectively. This means that before a period of prodrome can be accurately identified, disease onset must occur. Subsequently, the period of respective changes during the time leading up to disease onset is labeled the *prodromal state* or prodrome. The psychosis prodrome has been objectively defined in a number of ways” (p 109). One example of these definitions is attenuated psychosis syndrome, which is listed in the conditions for further study in DSM-5.¹ Over the years, a number of specialized clinical and research programs for the treatment of psychotic illness and its early manifestation have been started around the world. A team of health care professionals from one such program (the INSPIRE Clinic at Stanford University)—Kate V. Hardy, ClinPsychD, Jacob S. Ballon, MD, MPH, Douglas L. Noordsy, MD, and Steven Adelsheim, MD—decided to put together a text that would address all aspects of a team approach for intervening in psychosis. They gathered a group of experts who helped them prepare this 23-chapter volume.

The introduction chapter of this book, written by the foremost promoter of early intervention programs, Patrick McGorry, reminds us that the time for the idea of early intervention has come. Unfortunately, as he

writes, the progress has been “slower than ideal” (p 4). Nevertheless, “Early intervention, the essential element of preemptive psychiatry, is now being explored across the full diagnostic spectrum, and this exciting new field promises human, economic, and public health benefits on a much larger scale than could have been envisioned even a decade ago” (p 8).

The following 22 chapters address, in a very comprehensive fashion, numerous if not all aspects of intervening in the first episode of psychosis or its prodromes, starting with growth of early intervention programs in the United States, and continuing with issues such as early detection of schizophrenia: a population health approach; early intervention and policy; first-person account of psychosis and advocacy work; engaging family and individuals in care; assessment of people in the early stages of psychosis; assessment and targeted intervention in individuals at clinical high risk for psychosis; medical workup for first-episode psychosis; assessing and treating trauma in team-based early psychosis care; intervening early: a team-based approach; psychopharmacology for people in early psychosis; psychotherapeutic interventions for early psychosis; substance use and early psychosis; role of aerobic exercise in the treatment of early psychosis; supported employment and education for people in early psychosis; implementing peer support in early psychosis programs; family intervention and support in early psychosis; suicide risk assessment and intervention in early psychosis; using technology to advance early psychosis intervention; inpatient care for early

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psychosis from a recovery-oriented perspective; care for adolescents on the first-episode psychosis continuum; and special populations, such as college and university students.

The chapters also include Key Concepts; Discussion Questions stemming from the particular ideas of each chapter; and Suggested Readings and references. Some also have good clinical narratives. They present a wealth of information and good ideas.

I will touch upon some interesting chapters and ideas entertained in this volume. The chapter on programs in the United States mentions a clinical staging model developed by McGorry et al.² The stages in this model “range from stage 0, which occurs without symptoms but with elevated risk for psychosis, to stage 1, with the first identification of concerning symptoms, through stage 2, which is the first episode of psychosis, stage 3, with relapses of the first episode, and ultimately, stage 4, which is a fully established, more chronic disorder” (p 17). The chapter on early detection of schizophrenia poses a question of whether we are looking for the duration of untreated psychosis or duration of untreated illness, and notes that “The first episode of psychosis is thus best understood not as the true beginning but rather as the *end of the beginning* of a complex biopsychosocial process wherein vulnerabilities (e.g., genetic, in utero exposure) interact with a wide

range of environmental factors to drive progression toward diagnosable illness” (p 25). In particular, the experiential chapter on 2 accounts of first episode and continuation of psychosis—one from the point of personal experience and the other from a sibling of a person with personal experience—is very good. The chapter on engaging families notes 3 primary stages of the engagement: community outreach, individual and family engagement, and peer and family connections over time in recovery. The chapter on clinical high risk for psychosis presents a complicated risk calculator, among others.

An interesting chapter on psychotherapeutic intervention compares 2 models: cognitive-behavioral therapy for psychosis and individual resiliency training. The chapter on exercise contains quite interesting information, pointing out that one meta-analysis demonstrated “moderate to vigorous exercise exhibited a strong effect on total psychiatric symptoms, with significant reduction in both positive and negative scales” (p 273). Some other chapters worth mentioning discuss supported employment and education; family support with good discussion of addressing consent and confidentiality issues; implementing peer support; and suicide risk. I found some chapters less appealing, such as the one on technology because it addresses this important topic a bit superficially. Last but not least, the last

2 chapters—one on adolescents and the other on college and university students—are quite good and interesting. As I have encountered similar situations and faced resistance from the university, I liked the recommendation for management of college students afflicted by the first episode of psychosis: “Forced medical leaves should be used minimally after all other options have been exhausted. When students need to take time away from school, they should be allowed to maintain contacts with peers and professors and continue coursework remotely” (p 412).

This is quite a comprehensive book that I would recommend to all those interested in starting early intervention in psychotic illness programs. Some clinicians who take care of young patients with prodromal symptomatology may also find it useful. While the book’s comprehensiveness is its strength, it is also its weakness because it is long and the chapters overlap at times. Two questions remained in my mind after I finished reading this interesting volume: Was it the intention of the editors to put together a “reference” book for those interested in building similar programs, or a clinical guide? And how can we build similar programs in places where they are needed the most, such as inner cities with already underfunded existing programs?

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REFERENCES

1. Diagnostic and Statistical Manual of Mental Disorders, 5th ed. American Psychiatric Association; 2013.

2. McGorry PB, Hickie IB, Yung AR, et al. Clinical staging of psychiatric disorders: a heuristic framework for

choosing earlier, safer and more effective interventions. *Aust N Z J Psychiatry*. 2006;40:616-622.

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BOOKS RECEIVED

The following books have been received or otherwise obtained and will be reviewed by selected individuals, the courtesy of the sender is acknowledged by this listing

Patients at Risk: The Rise of the Nurse Practitioner and Physician Assistant in Healthcare.

By Niran Al-Agba and Rebekah Bernard; Boca Raton, Florida; Universal Publishers, Inc.; 2020; ISBN 97816277343169; pp 235; \$27.95 (paperback).