

Cambridge University Press
978-1-009-01289-8 — Case Studies: Stahl's Essential Psychopharmacology
Edited by Takesha Cooper , Gerald Maguire , Stephen Stahl
Frontmatter
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CASE STUDIES

Stahl's Essential Psychopharmacology
Volume 3

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Stahl's Essential Psychopharmacology

Volume 3

Edited by

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Introduction

Following on from the success of the second volume of *Case Studies* in 2016, we are very pleased to present a third collection of new clinical cases. This third collection of cases is the result of a special project of the Department of Psychiatry and Neuroscience of the University of California, Riverside, where all three editors are faculty members. Each case is taken from the clinical practices of the department and each is written by a team comprising a medical student or resident/fellow in psychiatry paired with a faculty member in the UCR psychiatry and neuroscience department. This volume of cases thus showcases not only the clinical practice in our department, but the teamwork of faculty and trainees to produce a scholarly and educational book to enrich and inform our colleagues who treat mental illness. *Stahl's Essential Psychopharmacology* started in 1996 as a textbook (currently in its fourth edition) on how psychotropic medications work. It expanded to a companion Prescriber's Guide in 2005 (currently in its fifth edition) on how to prescribe psychotropic medications. In 2008, a website was added (stahlonline.cambridge.org) with both of these books available online in combination with several more, including an *Illustrated* series of books covering specialty topics in psychopharmacology. The *Case Studies* shows how to apply the concepts presented in these previous books to real patients in a clinical practice setting.

Why a case book? For practitioners, it is necessary to know the science and application of psychopharmacology – namely, both the mechanism of action of psychotropic medications and the evidence-based data on how to prescribe them – but this is not sufficient to become a master clinician. Many patients are beyond the data and are excluded from randomized controlled trials. Thus, a true clinical expert also needs to develop the art of psychopharmacology: namely, how to listen, educate, destigmatize, mix psychotherapy with medications, and use intuition to select and combine medications. The art of psychopharmacology is especially important when confronting the frequent situations where there is no evidence on which to base a clinical decision.

What do you do when there is no evidence? The short answer is to combine the science with the art of psychopharmacology. The best way to learn this is probably by seeing individual patients. Here we hope you will join us and peer over our shoulders to observe 34 complex cases from our own clinical practice. Each case is anonymized in identifying details, but incorporates real case outcomes that are not fictionalized. Sometimes more than one case is combined into a single case. Hopefully, you will recognize many of these patients as similar to those you have seen in your own practice (although they will not be exactly the same patient, as the identifying historical details are changed here to comply with disclosure standards, and many patients can look

Introduction

very much like many other patients you know, which is why you may find this teaching approach effective for your clinical practice).

We have presented cases from our clinical practice for many years online (e.g. in the master psychopharmacology program of the Neuroscience Education Institute (NEI) at neiglobal.com) and in live courses (especially at the annual NEI Psychopharmacology Congress). Over the years, we have been fortunate to have many young psychiatrists from our universities, and indeed from all over the world, sit in on our practices to observe these cases, and now we attempt to bring this information to you in the form of a third case book.

The cases are presented in a novel written format in order to follow consultations over time, with different categories of information designated by different background colors and explanatory icons. For those of you familiar with *The Prescriber's Guide*, this layout will be recognizable. Included in the case book, however, are many unique sections as well; for example, presenting what was on the author's mind at various points during the management of the case, and also questions along the way for you to ask yourself in order to develop an action plan. There is a pretest, asked again at the end as a posttest, for those who wish to gain CME credits (go to neiglobal.com to answer these questions and obtain credits). Additionally, these cases incorporate ideas from the recent changes in maintenance of certification standards by the American Board of Psychiatry and Neurology for those of you interested in recertification in psychiatry. Thus, there is a section on Performance in Practice (called here "Confessions of a psychopharmacologist"). There is a short section at the end of several cases looking back and seeing what could have been done better in retrospect. Another section of most cases is a short psychopharmacology lesson or tutorial, called the "Two-minute tutorial," with background information, tables, and figures from literature relevant to the case in hand. Medications are listed by their generic and brand names for ease of learning. Indexes are included at the back of the book for your convenience. Lists of icons and abbreviations are provided in the front of the book. Finally, this third collection updates the reader on the newest psychotropic medications and their uses, and adopts the language of *DSM-V*.

The case-based approach is how this book attempts to complement "evidence-based prescribing" from other books in the *Essential Psychopharmacology* series, plus the literature, with "prescribing-based evidence" derived from empiric experience. It is certainly important to know the data from randomized controlled trials, but after knowing all this information, case-based clinical experience supplements those data. The old saying that applies here is that wisdom is what you learn *after* you know it all; and so, too, for studying cases after seeing the data.

A note of caution: we are not so naïve as to think that there are not potential pitfalls to the centuries-old tradition of case-based teaching. Thus, we think it is a good idea to point some of them out here in order to try to avoid these traps. Do not ignore the "law of small numbers" by basing broad predictions on narrow samples or even a single case.

Do not ignore the fact that if something is easy to recall, particularly when associated with a significant emotional event, we tend to think it happens more often than it does.

Do not forget the recency effect, namely, the tendency to think that something that has just been observed happens more often than it does.

According to editorialists¹, when moving away from evidence-based medicine to case-based medicine, it is also important to avoid:

- Eloquence or elegance-based medicine
- Vehemence-based medicine
- Providence-based medicine
- Diffidence-based medicine
- Nervousness-based medicine
- Confidence-based medicine

We have been counseled by colleagues and trainees that perhaps the most important pitfall for us to try to avoid in this book is “eminence-based medicine,” and to remember specifically that:

- Radiance of gray hair is not proportional to an understanding of the facts
- Eloquence, smoothness of the tongue, and sartorial elegance cannot change reality
- Qualifications and past accomplishments do not signify a privileged access to the truth
- Experts almost always have conflicts of interest
- Clinical acumen is not measured in frequent flier miles

Thus, it is with all humility as practicing psychiatrists that we invite you to walk a mile in our shoes; experience the fascination, the disappointments, the thrills, and the learnings that result from observing cases in the real world.

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¹ Isacss D and Fitzgerald D. Seven alternatives to evidence based medicine.
British Medical Journal 1999; 319:1618.

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

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List of icons

	Pre- and posttest self-assessment question; question
	Patient evaluation on intake; patient evaluation on initial visit
	Psychiatric history
	Social and personal history
	Medical history
	Family history
	Medication history
	Current medications

List of icons

	<p>Psychotherapy history; psychotherapy moment</p>
	<p>Mechanism of action moment</p>
	<p>Attending physician's mental notes</p>
	<p>Further investigation</p>
	<p>Case outcome; use of outcome measures</p>
	<p>Case debrief</p>
	<p>Take-home points</p>
	<p>Performance in practice: confessions of a psychopharmacologist</p>
	<p>Tips and pearls</p>
	<p>Two-minute tutorial</p>

Abbreviations

5-HT	serotonin	CBC	complete blood count
AACAP	American Academy of Child and Adolescent Psychiatry	CBT	cognitive behavioral therapy
AAP	American Academy of Pediatrics	CIWA-Ar	Clinical Institute Withdrawal Assessment of Alcohol, Revised
ACE	adverse childhood event	CNS	central nervous system
ADHD	attention-deficit/ hyperactivity disorder	COVID-19	coronavirus disease 2019
AF	atrial fibrillation	CPS	Child Protective Services
AIMS	Abnormal Involuntary Movement Scale	CT	computed tomography
ALT	alanine amino transferase	CYP1A2	cytochrome P450 1A2
AMPA	α -amino-3-hydroxy- 5-methyl-4- isoxazolepropionic acid	CYP2D6	cytochrome P450 2D6
ANC	absolute neutrophil count	DA	dopamine
ANCA	anti-neutrophil cytoplasmic antibody	DSM-4-TR	<i>Diagnostic and Statistical Manual of Mental Disorders</i> , 4th edn., text revision
ASD	autism spectrum disorder	DSM-4/DSM-5	<i>Diagnostic and Statistical Manual of Mental Disorders</i> , 4th/5th edn.
ASQ	Ages and Stages Questionnaire	ECG	electrocardiogram
AST	aspartate amino transferase	ECT	electroconvulsive therapy
AWS	alcohol withdrawal syndrome	EEG	electroencephalogram
BDNF	brain-derived neurotrophic factor	EPS	extrapyramidal symptoms
BDZ	benzodiazepine	ER	extended-release
BED	binge eating disorder	FAST	Functional Adaptation and Skills Training
BMI	body mass index	FDA	US Food and Drug Administration
BMP	basic metabolic panel	fMRI	functional magnetic resonance imaging
BPD	brief psychotic disorder	GABA	γ -aminobutyric acid
bpm	beats/min	GAD	generalized anxiety disorder
BUN	blood urea nitrogen		

List of Abbreviations

G-CSF	granulocyte colony-stimulating factor	MoCA	Montreal Cognitive Assessment
GnRH	gonadotropin-releasing hormone	MOR	μ -opioid receptor
GSK3	glycogen synthase kinase 3	MRI	magnetic resonance imaging
HAM-D	Hamilton Depression Rating Scale	mTOR	mammalian target of rapamycin
HbA1c	hemoglobin A1c	NDRI	norepinephrine-dopamine reuptake inhibitor
HDL	high-density lipoprotein	NE	norepinephrine
HIV	human immunodeficiency virus	NMDA	<i>N</i> -methyl-D-aspartate
HPA	hypothalamic–pituitary–adrenal	NMS	neuroleptic malignant syndrome
ID	intellectual disability	NPSLE	neuropsychiatric systemic lupus erythematosus
IDD	intellectual developmental disorder	OCD	obsessive–compulsive disorder
IEP	Individualized Education Plan	ODT	oral disintegrating tablet
IM	intramuscular	OROS	osmotic-controlled release oral delivery system
IMD	institution for mental diseases	PARS	Pediatric Anxiety Rating Scale
IPT	interpersonal psychotherapy	PAWSS	Prediction of Alcohol Withdrawal Severity Scale
IR	immediate-release	PCP	primary care physician
IV	intravenous	PEDS	Parent's Evaluation of Developmental Status
KOR	κ -opioid receptor	PET-CT	positron emission tomography/computed tomography
LAI	long-acting injectable	PO	by mouth
LDL	low-density lipoprotein	PTSD	posttraumatic stress disorder
LPS	Lanterman–Petris–Short	QTc	corrected QT interval
MAO	monoamine oxidase	REM	rapid eye movement
MAOI	monoamine oxidase inhibitor	RVR	rapid ventricular response
MASC	Multidimensional Anxiety Scale for Children	SAD	seasonal affective disorder
MDD	major depressive disorder		
MDE	major depressive episode		
MERS	Middle East respiratory syndrome		
MMSE	mini-mental state examination		

List of Abbreviations

SARS	severe acute respiratory syndrome	TBS	Therapeutic Behavioral Services
SCA	spinocerebellar ataxia	TCA	tricyclic antidepressant
SCARED	Screen for Child Anxiety and Related Emotional Disorders	TR	time-release
SCAS	Spence Children's Anxiety Scale	TSH	thyroid-stimulating hormone
SCL-90-R	Symptom Checklist-90-Revised	UDS	urine drug screen
SLD	specific learning disorder	VEGF	vascular endothelial growth factor
SLE	systemic lupus erythematosus	VLPFC	ventrolateral prefrontal cortex
SNRI	serotonin-norepinephrine reuptake inhibitor	VMAT2	vesicular monoamine transporter-2
SSRI	selective serotonin reuptake inhibitor	WISC	Wechsler Intelligence Scale for Children
T3	triiodothyronine	WPATH	World Professional Association for Transgender Health
T4	thyroxine	XL	extended-release
TBI	traumatic brain injury	XR	extended-release