

The ARCHIVES OF GENERAL PSYCHIATRY is a member of the consortium of AMA journals listed below. The complete text of all AMA journals is available online from Dialog Information Services and Ovid Technologies, Inc.

The Journal of the American Medical Association (JAMA)

Archives of Dermatology
Archives of Facial Plastic Surgery
Archives of General Psychiatry
Archives of Internal Medicine
Archives of Neurology
Archives of Ophthalmology
Archives of Otolaryngology—Head & Neck Surgery
Archives of Pathology & Laboratory Medicine
Archives of Pediatrics & Adolescent Medicine
Archives of Surgery

The ARCHIVES OF GENERAL PSYCHIATRY (ISSN 0003-990x) is published monthly by the American Medical Association, 515 N State St, Chicago, IL 60610, and is an official publication of the Association. The ARCHIVES OF GENERAL PSYCHIATRY reaches more than 31 000 readers in over 79 countries each month. Periodicals postage rates paid at Chicago, IL, and at additional mailing offices. GST registration number: 12622 5556 RT. Canada Post International Publications Mail (Canadian Distribution) Sales Agreement No. 318633.

Printed in the USA.

SUBSCRIPTION RATES—The personal subscription rates for the ARCHIVES OF GENERAL PSYCHIATRY are \$175 for 1 year (12 issues) in the United States and US possessions; \$225 in the Americas; £155 outside the Americas. The institution rates for 1 year are \$325 in the United States; \$425 in the Americas; £275 outside the Americas. Special rates for residents and medical students are available. Address all subscription communications to: Subscriber Services Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946. Phone: (800) 262-2350. Fax: (312) 464-5831. E-mail: ama-subs@ama-assn.org. For mailing addresses outside the United States and US possessions, see International Subscription Information.

CHANGE OF ADDRESS—POSTMASTER, send all address changes to ARCHIVES OF GENERAL PSYCHIATRY, c/o Subscriber Services, American Medical Association, 515 N State St, Chicago, IL 60610. Please notify us of address change at least 6 weeks in advance to ensure uninterrupted service. Include both old and new addresses, a recent mailing label, and new ZIP code. For mailing addresses outside the United States and US possessions, see International Subscription Information.

SUBSCRIBER SERVICES—For information about subscribing to any of the AMA publications, change of address, missing issues, or purchasing back issues, please contact Subscriber Services Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946, or call (800) 262-2350 or (312) 670-SUBS (670-7827) between 8:30 AM and 4:30 PM CST. Fax: (312) 464-5831. E-mail: ama-subs@ama-assn.org. For mailing addresses outside the United States and US possessions, see International Subscription Information.

INTERNATIONAL SUBSCRIPTION INFORMATION—Subscriptions outside the United States and US possessions are served according to geographic region. Please address correspondence to the following 2 offices based on delivery address:

(1) For delivery in North America, Central America, and South America, contact Subscriber Services, AMA, PO Box 10946, Chicago, IL 60610-0946. Phone: (312) 670-7827. Fax: (312) 464-5831. E-mail: ama-subs@ama-assn.org. (2) For delivery outside the Americas, contact Subscription Department, JAMA & Archives Journals, American Medical Association, Tower House, Sovereign Park, Market Harborough, Leicestershire LE16 9EF, England. Telephone: +44 (0) 1858-438880, Fax: +44 (0) 1858-434958.

REPRINTS—Authors place their reprint order at the time the edited typescript is reviewed and should allow 4 to 6 weeks for delivery following publication. Requests for individual reprints should be sent directly to the author at the address shown in the article.

For bulk reprint orders for distribution by commercial organizations, please contact Wanda Bartolotta, 2441 84th St, Brooklyn, NY 11214. Phone: (718) 946-7424. Fax: (718) 946-7372. E-mail: wanda_bartolotta@ama-assn.org. For reprint orders in limited quantities for distribution by educational organizations and for author reprints, please contact Reprints Coordinator, 515 N State St, Chicago, IL 60610. Phone: (312) 464-4594. Fax: (312) 464-4849.

PERMISSIONS—Contact Rhonda Bailey, Permissions Assistant, 515 N State St, Chicago, IL 60610. Phone: (312) 464-2513.

ADVERTISING PRINCIPLES—Each advertisement in this issue has been reviewed and complies with the principles governing advertising in AMA scientific publications. A copy of these principles is available on request. The appearance of advertising in AMA publications is not an AMA guarantee or endorsement of the product or the claims made for the product by the manufacturer.

WORLD WIDE WEB ADDRESS—<http://www.ama-assn.org>

GENERAL PSYCHIATRY HOME PAGE—<http://www.archgenpsychiatry.com>

Publication Staff

Offices: 515 N State St, Chicago, IL 60610

Editorial Processing Department

Division Director: Cheryl Iverson
Department Director: Paula Glitman
Copyediting Manager:
 Brenda Gregoline
Freelance Copyediting Manager:
 Diane L. Cannon
Freelance Copyediting Coordinator:
 Connie Manno
Electronic Editing Specialist:
 Paul Frank
Assistant Electronic Editing Specialist:
 Monica Mungle
Senior Copy Editor:
 Vickey Golden
Copy Editors:
 Lauren B. Fischer
 Juana N. Llorens
 Rachel Novickas
 Cheryl L. Tobey
Editorial Assistant: Wanda Hill

Scientific Publications & Multimedia Applications

Assistant to the Editor: Helga Fritz

Scientific Online Resources

Director: Margaret Winker, MD
Electronic Media Department Director:
 Michelle Kurzynski
Associate Web Editors:
 Katherine Behar
 Erin M. Giannini
Web Office Manager: Marla A. Hall
Editorial Assistant: Gemma Wall

Specialty Journal Division Office

Manager, Marketing Services:
 Geoffrey A. Flick
Assistant to the Publisher:
 Christine Hearne

Circulation & Content Marketing Division

Administrative Assistant:
 Millette Jackson-Bates

Circulation Processing Department

Circulation Systems Manager:
 Alfred Tomaselli
Circulation Specialists:
 Reginald Jordan
 Kathryn Osten
Assistant Application Administrator:
 Julie Burton

Circulation Development Department

Director: Bina Oza
Circulation Marketing Managers:
 Vida Damijonaitis
 Donna Goldman
 Michael McGraw
Circulation Marketing Specialist:
 Sandra Garzon

Licensing & Permissions Department

Director: Norman Frankel
Permissions: Rhonda Bailey

Production & Distribution Division

Directors: Karen Adams-Taylor,
 Paul Gasiecki, Vanessa Hayden
Managers: David Antos, Karen Branham,
 Debbie Camp, Diane Darnell,
 Karl Elvin, Betty Frigerio,
 Terri Hanley, Mary Ellen Johnston,
 Carole Piszker, Susan Price,
 Charl Richey, Carmela Ware
Production Assistant: Kristy Kambanis
Production Associates and Specialists:
Advertising and Production Services:
 LaWanda Brown, Susan Chiara,
 Mary Anne Donley, Brian McCartney,
 Sarah Powell, Denise Steinhauer,
 Ellen Yoshihara
Composition: Rebecca Aiken,
 Brenda Chandler-Grayer, Amy Evers,
 Fred Furtner, Mary Ann Kuranda,
 Sandra Lopez
Database & New Media:
 Bruce McGregor (indexer),
 Clifford O. Barrett, Gail Barrett,
 Regina Brownlee, Rowena F. Dagang,
 John Marcinek, La'son Diggs Sledge,
 Angela Smits
Distribution: Linda Alexander,
 Michelle Robinson
Graphics: Joe Amft, Noel Chaparro,
 Carolyn Hall, Maria Kowalkowski,
 Chris Meyer, JoAnne Weiskopf
Proofreading: Daniel James,
 Teresa H. Omiotek,
 Mary Kay Tinerella,
 Barbara Wojtowicz,
 Agnes A. Zarkadas

Advertising

Director, Advertising Sales:
 Peter G. Messina
AMA Classified Advertising Department:
 Thalia Moss, 800-262-2260
Advertising Office:
 J. P. Cahill & Associates
 341 S Waiola Ave
 La Grange, IL 60525
 (708) 352-0322



ARCHIVES

OF

GENERAL PSYCHIATRY

AUGUST 2001 VOLUME 58, NUMBER 8 PAGES 713-800

ORIGINAL ARTICLES

**Psychiatric Disorders and Drug Use
Among Human Immunodeficiency
Virus–Infected Adults in
the United States** 721

Eric G. Bing, MD, PhD, MPH;
M. Audrey Burnam, PhD;
Douglas Longshore, PhD;
John A. Fleishman, PhD;
Cathy Donald Sherbourne, PhD;
Andrew S. London, PhD;
Barbara J. Turner, MD, MSEd;
Ferd Egan, MA;
Robin Beckman, MPH;
Benedetto Vitiello, MD;
Sally C. Morton, PhD;
Maria Orlando, PhD;
Samuel A. Bozzette, MD, PhD;
Lucila Ortiz-Barron, MD;
Martin Shapiro, MD, PhD

**Use of Mental Health and Substance
Abuse Treatment Services Among
Adults With HIV in the United States** 729

M. Audrey Burnam, PhD;
Eric G. Bing, MD, PhD, MPH;
Sally C. Morton, PhD;
Cathy Sherbourne, PhD;
John A. Fleishman, PhD;
Andrew S. London, PhD;
Benedetto Vitiello, MD;
Michael Stein, MD;
Samuel A. Bozzette, MD, PhD;
Martin F. Shapiro, MD, PhD

**Emotion in Criminal Offenders
With Psychopathy and Borderline
Personality Disorder** 737

Sabine C. Herpertz, MD;
Ulrike Werth;
Gerald Lukas, MSc;
Mutaz Qunaibi, BSc;
Annette Schuerkens, BSc;
Hanns-Juergen Kunert, PhD;
Roland Freese, MD;
Martin Flesch, MD;
Ruediger Mueller-Isberner, MD;
Michael Osterheider, MD;
Henning Sass, MD

**Obstetric Complications, Parenting,
and Risk of Criminal Behavior** 746

Sheilagh Hodgins, PhD;
Lynn Kratzer, PhD;
Thomas F. McNeil, PhD

**Targeting Behavioral Therapies
to Enhance Naltrexone Treatment
of Opioid Dependence:
Efficacy of Contingency Management
and Significant Other Involvement** 755

Kathleen M. Carroll, PhD;
Samuel A. Ball, PhD;
Charla Nich, MS;
Patrick G. O'Connor, MD, MPH;
Dorothy A. Eagan, RN, MPH;
Tami L. Frankforter;
Elisa G. Triffleman, MD;
Julia Shi, MD;
Bruce J. Rounsaville, MD

American Medical Association

Physicians dedicated to the health of America



Catherine D. DeAngelis, MD, MPH
Editor in Chief, Scientific Publications
& Multimedia Applications

Peter L. Payerli
Interim Vice President, Publishing
Publisher

Cheryl Iverson
Managing Editor

Robert A. Musacchio, PhD
Senior Vice President,
Publishing & Business Services

Copyright 2001 by the American Medical Association. All rights reserved.
Reproduction without permission is prohibited.

All articles published, including editorials, letters, and book reviews, represent the opinions of the authors and do not reflect the policy of the American Medical Association, the Editorial Board, or the institution with which the author is affiliated, unless this is clearly specified.

Neurocognitive Enhancement Therapy With Work Therapy: Effects on Neuropsychological Test Performance 763
Morris Bell, PhD;
Gary Bryson, PhD;
Tamasine Greig, PhD;
Cheryl Corcoran, MD;
Bruce E. Wexler, MD

Neural Correlates of Formal Thought Disorder in Schizophrenia: Preliminary Findings From a Functional Magnetic Resonance Imaging Study 769
Tilo T. J. Kircher, MD, PhD;
P. F. Liddle, PhD, MRCPsych;
Michael J. Brammer, PhD;
Steve C. R. Williams, PhD;
Robin M. Murray, MD, MRCPsych;
Philip K. McGuire, MD, PhD, MRCPsych

Efficacy of a Mixed Amphetamine Salts Compound in Adults With Attention-Deficit/Hyperactivity Disorder 775
Thomas Spencer, MD;
Joseph Biederman, MD;
Timothy Wilens, MD;
Stephen Faraone, PhD;
Jefferson Prince, MD;
Kristine Gerard, MD;
Robert Doyle, MD;
Asha Parekh, MD;
Jake Kagan, BA;
Sarah Kate Bearman, BA

COMMENTARY

Attention-Deficit/Hyperactivity Disorder in Adults: Beyond Controversy 784
Kenneth D. Gadow, PhD;
Margaret Weiss, MD, PhD

ORIGINAL ARTICLE

A Self-Report Scale to Help Make Psychiatric Diagnoses: The Psychiatric Diagnostic Screening Questionnaire 787
Mark Zimmerman, MD;
Jill I. Mattia, PhD

REGULAR DEPARTMENTS

This Month in Archives of General Psychiatry 720

Correction 774

Classified Advertising 796

Index to Advertisers 800

Instructions for Authors—
See January 2001 issue, page 98, or visit the Web site at <http://www.archgenpsychiatry.com>.

ARCHIVES

OF

GENERAL PSYCHIATRY

Editor:

Jack D. Barchas, MD
Department of Psychiatry
Cornell Medical Center
525 E 68th St, Box 171
New York, NY 10021
Phone: (212) 746-3771
Fax: (212) 746-3772

Associate Editor:

Peter M. Marzuk, MD
New York, NY

Web Site Editor:

Francis S. Lee, MD, PhD
New York, NY

Editorial Administrator:

Sheena Rumnit
New York, NY

Editorial Board:

Huda Akil, PhD
Ann Arbor, Mich
Ross J. Baldessarini, MD
Belmont, Mass
Floyd E. Bloom, MD
La Jolla, Calif
Malcolm B. Bowers, Jr, MD
New Haven, Conn
David L. Braff, MD
San Diego, Calif
William T. Carpenter, Jr, MD
Baltimore, Md
Joseph T. Coyle, MD
Boston, Mass
Raymond J. Dolan, MD
London, England
Felton Earls, MD
Cambridge, Mass
Glen R. Elliott, PhD, MD
San Francisco, Calif
Ellen Frank, PhD
Pittsburgh, Pa

Richard M. Glass, MD
Chicago, Ill
Frederick K. Goodwin, MD
Bethesda, Md
Fritz A. Henn, PhD, MD
Mannheim, Germany
Steven E. Hyman, MD
Bethesda, Md
Kenneth S. Kendler, MD
Richmond, Va
Kenneth K. Kidd, PhD
New Haven, Conn
Donald F. Klein, MD
New York, NY
Helena Chmura Kraemer, PhD
Stanford, Calif
David J. Kupfer, MD
Pittsburgh, Pa
Herbert Y. Meltzer, MD
Nashville, Tenn
Grayson S. Norquist, MD
Bethesda, Md
Charles P. O'Brien, MD, PhD
Philadelphia, Pa

Michael Posner, PhD
New York, NY
Judith L. Rapoport, MD
Bethesda, Md
Alan F. Schatzberg, MD
Stanford, Calif
Goran Sedvall, MD
Stockholm, Sweden
Gary L. Tischler, MD
New York, NY
Ming T. Tsuang, MD, PhD
Boston, Mass
Stanley J. Watson, Jr, PhD, MD
Ann Arbor, Mich
Myrna M. Weissman, PhD
New York, NY
Kenneth B. Wells, MD, MPH
Los Angeles, Calif