

Continuing Medical Education

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Information to Participants

Objectives. After evaluating a specific journal article, participants should be able to demonstrate an increase in their knowledge of clinical medicine. Participants should be able to understand the contents of a selected research or review article and to apply the new findings to their clinical practice.

Participants. This program is designed for all psychiatrists in clinical practice, residents in Graduate Medical Education programs, medical students interested in psychiatry, and other physicians who wish to advance their current knowledge of clinical medicine.

Explanation of How Physicians Can Participate and Earn Credit. In order to earn CME credit, subscribers should read through the material presented in the article. After reading the article, complete the CME quiz online at cme.psychiatryonline.org and submit your evaluation and study hours (up to 1 *AMA PRA Category 1 Credit*[™]).

Credits. The American Psychiatric Association designates this educational activity for a maximum of 1 *AMA PRA Category 1 Credit*[™]. Physicians should only claim credit commensurate with the extent of their participation in the activity. The American Psychiatric Association is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Information on Courses

Title: The Study of Fear Extinction: Implications for Anxiety Disorders

Faculty: Bronwyn M. Graham, Ph.D., M.Psychol., Mohammed R. Milad, Ph.D.

Affiliations: From the Department of Psychiatry, Massachusetts General Hospital, and Harvard Medical School, Boston.

Disclosures: Dr. Graham reports no financial relationships with commercial interests. Dr. Milad has received fees from MicroTransponder, Inc.

Discussion of unapproved or investigational use of products*: No

Title: Childhood Trauma and Psychosis: A Case-Control and Case-Sibling Comparison Across Different Levels of Genetic Liability, Psychopathology, and Type of Trauma

Faculty: Manuela Heins, M.S., Claudia Simons, Ph.D., Tineke Lataster, Ph.D., Stefanie Pfeifer, Ph.D., Dagmar Versmissen, Ph.D., Marielle Lardinois, Ph.D., Machteld Marcelis, Ph.D., Philippe Delespaul, Ph.D., Lydia Krabbendam, Ph.D., Jim van Os, Ph.D., Inez Myin-Germeys, Ph.D.

Affiliations: From the Department of Psychiatry and Neuropsychology, European Graduate School of Neuroscience (EURON), South Limburg Mental Health Research and Teaching Network, and the Department of Humanities and Sciences, University College Maastricht, Maastricht University, Maastricht, the Netherlands (M.H., T.L., S.P., D.V., M.L., M.M., L.K., I.M-G.); the Geeste lijke gezondheidszorg Eindhoven en de Kempen, Institute of Mental Health Care Eindhoven, Eindhoven, the Netherlands (C.S.); the Division for Integrated Mental Health, Mondriaan, Heerlen/Maastricht, the Netherlands (P.D.); and the Department of Psychosis Studies, Institute of Psychiatry, King's College London, King's Health Partners, London, U.K. (J.v.O.).

Disclosures: Sponsored by the Dutch Organization for Scientific Research through the Genetic Risk and Outcome in Psychosis (GROUP) project and the European Community's Seventh Framework Program under grant agreement HEALTH-F2-2009-241909 (EU-GEI consortium).

Discussion of unapproved or investigational use of products*: No

Title: The Neural Circuits That Generate Tics in Tourette's Syndrome

Faculty: Zhishun Wang, Ph.D., Tiago V. Maia, Ph.D., Rachel Marsh, Ph.D., Tiziano Colibazzi, M.D., Andrew Gerber, M.D., Ph.D., Bradley S. Peterson, M.D.

Affiliations: From the Magnetic Resonance Imaging Unit and Division of Child and Adolescent Psychiatry; Columbia University and New York State Psychiatric Institute, New York.

Disclosures: The authors report no financial relationships with commercial interests.

Discussion of unapproved or investigational use of products*: No

* APA policy requires disclosure by CME authors of unapproved or investigational use of products discussed in CME programs. Off-label use of medications by individual physicians is permitted and common. Decisions about off-label use can be guided by scientific literature and clinical experience.

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Estimated Time to Complete: 1 Hour

Begin date December 1, 2011 – End date November 30, 2013

EXAMINATION QUESTIONS

Select the single best answer for each question below.

The Study of Fear Extinction: Implications for Anxiety Disorders

Bronwyn M. Graham and Mohammed R. Milad
Am J Psychiatry 2011; 168:1255–1265

Learning Objective. The learner will recognize the components of the fear extinction model involved in the neurocircuitry of anxiety disorders.

1. Fear extinction involves the medial prefrontal cortex activating inhibitory interneurons in the basolateral complex of the amygdala. Which of the following brain regions is thought to respond to an extinction cue to begin this process?
- A. Thalamus
 - B. Dorsolateral prefrontal cortex
 - C. Central amygdala
 - D. Hippocampus

2. Functional neuroimaging of participants with PTSD during extinction recall the day after extinction training demonstrated which of the following?
- A. Decreased amygdala activity
 - B. Decreased dorsal anterior cingulate activity
 - C. Decreased ventromedial prefrontal cortex activity
 - D. Increased dorsolateral prefrontal cortex activity

3. One future direction for fear extinction research is to examine the effect of sleep on extinction, based in part on which of the following observations?
- A. Sleep disturbance is associated with poor treatment outcome in PTSD.
 - B. Sleep enhances extinction recall in healthy humans.
 - C. Activity in the amygdala and the prefrontal cortex modulates sleep
 - D. All of the above

EVALUATION QUESTIONS

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STATEMENT 1. The activity achieved its stated objectives.

- 1. Strongly agree
- 2. Agree
- 3. Neutral
- 4. Disagree
- 5. Strongly disagree

STATEMENT 2. The activity was relevant to my practice.

- 1. Strongly agree
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STATEMENT 3. I plan to change my current practice based on what I learned in the activity.

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STATEMENT 5. The activity provided sufficient scientific evidence to support the content presented.

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STATEMENT 6. The activity was free of commercial bias toward a particular product or company.

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Childhood Trauma and Psychosis: A Case-Control and Case-Sibling Comparison Across Different Levels of Genetic Liability, Psychopathology, and Type of Trauma

Manuela Heins et al.

Am J Psychiatry 2011; 168:1286–1294

Learning Objective. The learner will appreciate the associations of childhood trauma (abuse and neglect) with psychosis vulnerability.

1. Which symptom dimensions are specifically associated with total childhood *trauma* in patients diagnosed with a psychotic disorder?

- A. Negative symptoms
- B. Positive symptoms
- C. General psychopathology
- D. Positive symptoms and general psychopathology

2. Which childhood trauma type is most strongly associated with the positive symptoms of clinical psychosis?

- A. Childhood abuse
- B. Childhood neglect
- C. Total childhood trauma
- D. None of the above

3. What is the role of sex in the trauma-psychosis association?

- A. Men are more sensitive to the psychosis-inducing effects of childhood abuse.
- B. Women are more sensitive to the psychosis-inducing effects of childhood abuse.
- C. Women are significantly more frequently exposed to both neglect and abuse.
- D. Sex did not moderate the association between psychotic disorder and trauma.

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The Neural Circuits That Generate Tics in Tourette's Syndrome

Zhishun Wang et al.

Am J Psychiatry 2011; 168:1326–1337

Learning Objective. The participant will recognize the neural circuits that govern tic generation in Tourette's syndrome and understand the methods used for the connectivity analysis.

1. This study used independent component analysis (ICA) to detect blood-oxygen-level-dependent (BOLD) activity in cortico-striato-thalamo-cortical circuits. Which of the following describes this method of analysis?

- A. A priori hypothesis-driven
- B. Region of interest (ROI) based
- C. Data-driven multivariate method
- D. Data-driven univariate method

2. BOLD activity correlated *positively* with tic severity in Tourette's syndrome patients in all of the following regions except:

- A. Primary motor cortex
- B. Anterior cingulate cortex
- C. Supplemental motor area
- D. Pallidum

3. When comparing activity in Tourette's syndrome patients during *spontaneous* tics and *voluntary* tics, significantly stronger activity was detected during *spontaneous* tics in which of the following regions?

- A. Primary somatosensory and posterior parietal cortices
- B. Putamen
- C. Amygdala/hippocampus complex
- D. All of the above

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