

**CURRICULUM VITAE**  
**Eve M. Valera**

**GENERAL INFORMATION**

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**Place of Birth:** Beacon, NY

**Education**

1992 B.A. Siena College, Loudonville, New York  
1996 A.M. University of Illinois at Urbana-Champaign (Clinical Psychology)  
1999 Ph.D. University of Illinois at Urbana-Champaign (Major: Clinical Psychology; Minor: Biological Psychology)

**Predoctoral Clinical Training and Internships**

1994-1994 Intern, Inpatient Psychiatry and Post-traumatic Stress Disorder Outpatient Clinic, Department of Veteran's Affairs Medical Center, Danville, IL  
1994-1995 Clinical Psychology Intern, Inpatient Psychiatric Unit, Covenant Medical Center, IL  
1997-1999 Clinical Neuropsychology Assistant, Carle Hospital, Champaign, IL  
1999-2000 Psychology Intern: Neuropsychology, National Center for Posttraumatic Stress Disorder; Emergency Room; Child Psychology. Boston VA Medical Center Consortium, Boston, MA

**Postdoctoral Training**

2000-2002	Clinical Research Training Program	Psychiatry	Harvard Medical School
2000-2002	Neuropsychology and Psychiatry Postdoctoral Fellowship	Neuropsych/ Psychiatry	Massachusetts Mental Health Center and Beth Israel Deaconess Medical Center

**Academic Appointments**

2000-2002	Research Fellow in Psychiatry	Harvard Medical School
2002-2007	Instructor in Psychiatry	Harvard Medical School
2007-	Assistant Professor	Harvard Medical School

**Hospital or Affiliated Institution Appointments**

2002-2003	Research Fellow	Massachusetts General Hospital
2003-	Assistant in Research	Massachusetts General Hospital

**Major Committee Assignments**

2007-	Member, Board of Advisers for Diversity in the Clinical Research Training program (CRTP) at Harvard Medical School.	
2008	Ad hoc grant reviewer	Israeli Science Foundation.

**Professional Societies**

1997	Midwestern Psychological Society	Member
1998-2000	International Society for Traumatic Stress Studies	Member
2002-2003	International Neuropsychological Society	Member
2001-	Cognitive Neuroscience Society	Member

**Editorial Boards**

2008-	Editorial board member	The Open Psychology Journal.
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Ad hoc reviewer

2004-	Journal of Abnormal Psychology
2004-	Journal of the International Neuropsychological Society
2004-	Psychological Assessment
2004-	Psychosomatics
2004-	Biological Psychiatry
2005-	British Journal of Clinical Psychology
2005-	Archives of General Psychiatry
2005-	Psychiatry Research: Neuroimaging
2006-	Trauma, Violence & Abuse
2006-	Progress in Neuro-Psychopharmacology and Biological Psychiatry
2007-	Molecular Psychiatry
2007-	European Journal of Neurology
2007-	Neuropsychology
2007-	Brain Research
2007-	Human Brain Mapping
2007-	Journal of the American Academy of Child and Adolescent Psychiatry
2007-	Acta Psychiatrica Scandinavica
2007-	The International Journal of Neuropsychopharmacology
2008-	Psychiatry Research
2008-	The Open Psychology Journal
2008-	Pediatrics
2008-	Developmental Neuropsychology

Awards and Honors

1992	Delta Epsilon Sigma Honors.
1992	National Dean's List, American Association for Higher Education.
1988-92	President's (Dean's) List.

- 1992 *Summa cum laude*, Siena College.  
1993 Graduate College Fellowship, University of Illinois.  
1998 Herman-Eisen Award for Professional Contribution to Psychology, University of Illinois.  
2001 Livingston Fellowship Award 2001-2002, Harvard Medical School.  
2001 Selected participant for the American Psychological Association Advanced Training Institute in Functional Magnetic Resonance Imaging.  
2002 Mysell Award, Department of Psychiatry, Harvard Research Day.  
2003 Lilly Fellowship Award, Eli Lilly and Company.

## **NARRATIVE REPORT**

### **Research Contributions**

I am a cognitive neuroscientist with training in clinical neuropsychology, psychopathology and traumatic brain injury. Post graduation, I began training in neuroimaging with a focus on understanding the neurobiology of attention deficit/hyperactivity disorder (ADHD). From this research, I have developed a strong interest in the cerebellum. Though most ADHD research has focused on examining frontal-striatal dysfunction, the discovery of cerebellar abnormalities in both structural and functional neuroimaging, including my own fMRI work, provides compelling evidence that the cerebellum may play a critical role in the pathophysiology of ADHD. In my current program of research, funded by a K23 NIMH Career Development Award, I am examining the functional and structural integrity of the cerebellum in adult ADHD in order to elucidate its role in ADHD deficits, such as motor coordination, temporal processing, and working memory. I am integrating state-of-the-art cerebellar segmentation and parcellation methodologies as well as behavioral and functional MRI experiments to test the hypothesis that abnormal cerebellar functioning contributes to ADHD deficits via timing and temporal processing irregularities. Using diffusion tensor imaging (DTI) I will also examine the integrity of white matter fiber tracts that interconnect the cerebellum with prefrontal and striatal regions to test hypotheses regarding the involvement of abnormal neural network pathways in the pathophysiology of ADHD. Other current plans include extending my neuroimaging experience to children with ADHD, examining affective dysregulation in ADHD, and also using DTI to examine brain injury in battered women.

### **Teaching Contributions**

My teaching responsibilities at the University of Illinois included several years as a primary instructor for a child abuse prevention program as well as being co-developer and co-instructor of an adolescent mentoring program for upper level undergraduate students.

For the past several years, I have been a guest lecturer for courses at Massachusetts General Hospital, Boston University, Tufts University, Children's Hospital, and Cambridge Health Alliance (a teaching affiliate of Harvard Medical School) on topics such as the neurobiology of ADHD, neuroimaging in ADHD, and the cerebellum's potential role in the pathophysiology of neuropsychiatric disorders such as ADHD. Audience makeup of the courses has ranged from hospital staff, psychiatry residents and fellows, to graduate students and research assistants. I have also given a number of talks on my research at national and international conferences and participated in Continuing Education activities aimed at increasing the field's understanding of ADHD across the lifespan. I regularly review papers for journals on topic areas such as neuroimaging of ADHD, neuroimaging of bipolar disorder, traumatic brain injury, and brain injury in battered women. I am also an ad hoc grant reviewer for the Israeli Science Foundation. Over the past 10 years, I have conducted clinical supervision with undergraduate students

working with troubled adolescents as well as research supervision with research assistants, at the undergraduate, post-graduate, and postdoctoral levels.

### **Clinical Contributions**

I have had extensive clinical training and experience in neuropsychological and psychodiagnostic assessment as well as cognitive-behavioral psychotherapy for both individuals and couples. I am a full time researcher and therefore my clinical activities are limited to assessments and interactions I have with subjects in my clinical research, many of whom have ADHD and other psychiatric comorbidities.

### **Research Funding Information**

<u>Years</u>	<u>Source</u>	<u>Role</u>	<u>Title</u>
1996	University of Illinois	PI	Minor Head Injury in Battered Women: Incidence and Relationship to Cognitive and Psychosocial Functioning (Graduate College Thesis Project Grant)
1996	University of Illinois	PI	Minor Head Injury in Battered Women: Incidence and Relationship to Cognitive and Psychosocial Functioning (Women's Studies Funding for Feminist Scholarship)
1996	University of Illinois	PI	Minor Head Injury in Battered Women (Graduate College On-Campus Dissertation Research Grant)
1998-1999	NIMH	PI	Minor Head Injury in Battered Women (Pre-doctoral Fellowship, NRSA, F31 MH11763)
2001	Livingston Foundation	PI	A Functional MRI Study of Working Memory in ADHD Adults (Peter B. Livingston Fellowship Fund Study, MGH/HMS)
2002-2003	NIMH	PI	A Functional MRI Study of Working Memory in ADHD Adults (Post-doctoral Fellowship, NRSA, F32 MH065040)
2003-2005	NIMH	Fellow	Neuroanatomy of Adult ADHD: An MRI Morphometric Study (PI: Larry Seidman, R01 MH62152)
2005- 2010	NIMH	PI	Cerebellar Structure and Function in Adult ADHD (Career Development Award, K23 MH071535)
2007-2009	HMS Center of Excellence In Women's Health	PI	Neuroimaging of Brain Injury in Battered Women (Harvard Medical School Fund for Women's Health)

## Report of Current Activities

### “Cerebellar Structure and Function in Adult ADHD”

PI

The goal of this project is to examine the structural and functional integrity of the cerebellum in adult ADHD to elucidate its role in the symptomatology of this highly understudied disorder. A state-of-the-art parcellation technique will be used to conduct a more detailed structural analysis of the cerebellum than has been previously possible.

### “Neuroimaging of Brain Injury in Battered Women”

PI

The goal of this project is to use diffusion tensor imaging and other advanced imaging scans to test for the presence of brain abnormalities (in particular in white matter fibers) in women who have been in a physically abusive relationship and have sustained at least one traumatic brain injury. The relationship between scores on a battery of neuropsychological tasks and measures of white matter integrity will also be conducted.

## Report of Teaching

### Undergraduate Courses/Seminars

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|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1993-1996 | Instructor, Child Abuse Prevention Program (20 students per semester for 6 semesters), University of Illinois, Champaign, IL                                                |
| 1996-1998 | Co-Developer of course and Instructor, Psychology 340 and Psychology 341, Adolescent Mentoring Program (15 students for 4 semesters), University of Illinois, Champaign, IL |
| 1996-1999 | Instructor, Independent Research Seminar (2 students for 6 semesters), University of Illinois, Champaign, IL                                                                |

### Guest Lectureships

- |           |                                                                                                                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2006-2007 | “Structural Imaging in ADHD” in the PI Lunch course for Research Assistants in the Clinical and Research Program in Pediatric Psychopharmacology, Massachusetts General Hospital, 1 hour lecture.  |
| 2008      | “Neuroimaging Abnormalities in ADHD” in the Advanced Neuropsychology Case Seminar for faculty and fellows at Cambridge Health Alliance, Harvard Medical School Teaching Affiliate, 1 hour lecture. |
| 2008      | “The Neurobiology of ADHD” in the Applied Physiological Development course for upper level and graduate students in Psychology/Child Development at Tufts University, 2 hour lecture.              |

### Annual Guest Lectureships

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|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2004- | “The Neurobiology of ADHD – Neuroimaging” in the Developmental Neuroscience course for second year fellows in the Harvard Child Psychiatry Training Program which spans 3 Harvard programs: Cambridge, Children’s Hospital, and Massachusetts general Hospital, 1.5 hour lecture. |
| 2005- | “The Neurobiology of ADHD” in the Human Neuropsychology I course for the Behavioral Neuroscience Ph.D. Program at Boston University School of Medicine, 3 hour lecture.                                                                                                           |
| 2006- | “Neuroimaging in ADHD” in the Pediatric Psychopharmacology course for Psychiatry Fellows at Massachusetts General Hospital, 1 hour lecture.                                                                                                                                       |

- 2008- “Structural and Functional Neuroimaging Abnormalities in ADHD” in the Developmental Psychopathology Research Workshop, course in the Harvard Clinical Psychology program for Ph.D. graduate students in the Department of Psychology, 1.5 hour lecture.

#### Continuing Medical Education

- 2006 “Structural Neuroimaging Abnormalities in ADHD” for the Academic Leadership Council Meeting exploring adult ADHD. Held on behalf of Boston University School of Medicine, Office of Continuing Education, and Haymarket Medical, 20-minute presentation and panel participant.
- 2006 “Meta-analysis of Structural Imaging Findings in Attention-deficit/hyperactivity disorder” interview for Talking ADHD, an Audio CME program for Healthcare Professionals Managing Patients with ADHD, Remedica Medical Education and Publishing, 20-minute interview.
- 2007 “Neuroimaging Findings in ADHD” presented at the Massachusetts Mental Health Center Research Grand Rounds, Harvard Medical School, 1 hour lecture.
- 2007 “Neuroimaging of ADHD” presented at the Attention Deficit Hyperactivity Disorder Across the Lifespan course, a 3 day CME Course offered by Massachusetts General Hospital Department of Psychiatry, 1 hour lecture and 3 hours curbside consulting for course participants.
- 2008 “Neuroimaging of ADHD” served as Curbside Consultant for the Child & Adolescent Psychopharmacology course, a 3 day CME Course offered by Massachusetts General Hospital Department of Psychiatry, 5 hours curbside consulting for course participants.

#### Invited Talks

- 2007 “Structural and Functional Neuroimaging Abnormalities in Attention-Deficit/Hyperactivity Disorder” for the Department of Psychiatry at the University of Pittsburgh, 1 hour lecture.
- 2007 “The Cerebellum in ADHD: Testing a Theory of Timing and Temporal Processing Using fMRI” for PIs and members of the participating Neuroscience laboratories in the Neuroscience Center Research Seminar at the Nuclear Magnetic Resonance Center at Massachusetts General Hospital, 30 minute lecture.
- 2008 “The Neurobiology of ADHD” at the Janssen Pharmaceuticals CNS Forum, 1 hour lecture.
- 2008 “Neurobiology and Neuroimaging of ADHD: Current Evidence, Challenges and Future Directions” for the Department of Psychiatry at University of Tokyo, 1 hour lecture.

#### Advisory and Supervisory Responsibilities

##### *Independent Study Supervision of Undergraduate Student*

- 1996-1997 Susannah More (University of Illinois; now a Postdoctoral Fellow at University of Michigan, Ann Arbor, MI)

##### *Independent Study Supervision and Training of Undergraduate Student Interns*

- 2004 Matthew Widmer (Hampshire College)
- 2005-2006 Navine Nasser-Ghodsii (Massachusetts Institute of Technology)
- 2006-2007 Megha Patel (Brandeis University)

*Independent Study Supervision of Graduate Student*

2004 Ariel Brown (B.A., Boston University)

**Regional, National, and International Contributions**Symposium Presentations (primary author)

- 1997 “Incidence of head injury in battered women.” Annual meeting of the Midwestern Psychological Association, Chicago, IL.
- 1998 “Effects of child abuse and neglect on later cognitive functioning.” Annual meeting of the Midwestern Psychological Association, Chicago, IL.
- 2003 “An fMRI study of working memory in adults with ADHD: Gender differences.” Annual Meeting of the International Neuropsychological Society, Honolulu, Hawaii.
- 2003 “Working memory in adult ADHD: An fMRI investigation.” Annual Meeting of the American Academy of Child and Adolescent Psychiatry, Miami, FL.
- 2003 “Alexithymia in battered women: Increasing our understanding.” Annual Meeting of the International Society for Traumatic Stress Studies, Chicago, IL.
- 2004 “Functional neuroanatomy of working memory in adults with ADHD.” Society of Biological Psychiatry’s 59<sup>th</sup> Annual Scientific Convention and Program, NY, NY.
- 2005 “Meta-analysis of structural imaging findings in attention-deficit/hyperactivity disorder.” Annual Meeting of the American Academy of Child and Adolescent Psychiatry, Toronto, Canada.
- 2007 “Working memory in adult ADHD: Sex differences in neural activation.” Annual Meeting of the American Academy of Child and Adolescent Psychiatry, Boston, MA.
- 2008 “New fronto-cerebellar findings in ADHD.” Annual Meeting of the American Psychiatric Association, Washington, DC. Industry sponsored symposium for CME credit.

Workshop

- 2003 Koenan K, Keane T, Street A, **Valera E**, Breiling J. “Grant Writing 101.” Annual Meeting of the International Society for Traumatic Stress Studies, Chicago, IL.

**BIBLIOGRAPHY****Original Articles**

1. Turrisi R, Jaccard J, Kelly SQ, **Valera EM**. Parent and teen perceptions regarding parental efforts at controlling teen drunk driving. *Journal of Applied Social Psychology* 1994; 24: 1387-1406.
2. **Valera EM**, Heller WH, Berenbaum H. A twin study of individual differences in perceptual asymmetry. *Laterality* 1999; 4: 299-312.
3. **Valera EM**, Berenbaum H. A twin study of alexithymia. *Psychotherapy and Psychosomatics* 2001; 70: 239-246.
4. **Valera EM**, Berenbaum H. Brain injury in battered women. *Journal of Consulting and Clinical Psychology* 2003; 71, 797-804.
5. Berenbaum H, **Valera EM**, Kerns JG. Psychological trauma and schizotypal symptoms. *Schizophrenia Bulletin* 2003; 29: 143-152.
6. Seidman LJ, Doyle A, Fried R, **Valera EM**, Crum K, Matthews L. Neuropsychological Function in Adults with Attention-Deficit Hyperactivity Disorder. *Psychiatric Clinics of North America* 2004; 27: 261-282.
7. Seidman LJ, Biederman J, Monuteaux MC, **Valera EM**, Doyle AE, Faraone SV. Impact of Gender

and Age on Executive Functioning: Do Girls and Boys with and without Attention-Deficit/Hyperactivity Disorder Differ Neuropsychologically in Pre-Teen and Teenage Years? *Developmental Neuropsychology* 2005; 27: 79-105.

8. **Valera EM**, Faraone SF, Biederman J, Poldrack RA, Seidman LJ. Functional neuroanatomy of working memory in Adult Attention-Deficit/Hyperactivity Disorder. *Biological Psychiatry* 2005; 57: 439-447
9. Seidman LJ, Biederman J, **Valera EM**, Monuteaux MC, Doyle AE, Faraone SV. Neuropsychological functioning in girls with attention-deficit/hyperactivity disorder with and without learning disabilities. *Neuropsychology* 2006; 20: 166-177.
10. Makris N, Kaiser JR, Haselgrove C, Seidman LJ, Biederman J, Boriel D, **Valera EM**, Papadimitriou GM, Fischl B, Caviness VS, Kennedy DN. Human Cerebral Cortex: A System for the Integration of Volume- and Surface-Based Representations. *Neuroimage*; 2006; 33; 139-153.
11. Seidman LJ, **Valera EM**, Makris N, Monuteaux MC, Boriel DL, Kelkar K, Kennedy DN, Caviness VS, Bush G, Aleari M, Faraone SV, Biederman J. Dorsolateral prefrontal and anterior cingulate cortex volumetric abnormalities in adults with attention-deficit/hyperactivity disorder identified by magnetic resonance imaging. *Biological Psychiatry*; 2006; 60; 1071-1080.
12. **Valera EM**, Faraone SV, Murray K, Seidman LJ. Meta-analysis of structural imaging findings in attention-deficit/hyperactivity disorder. *Biological Psychiatry*; 2007; 61; 1361-1369.
13. Makris N, Biederman J, **Valera EM**, Bush G, Kaiser J, Kennedy DN, Caviness VS, Faraone SV, Seidman LJ. Cortical thinning of the attention and executive function networks in adults with attention-deficit/hyperactivity disorder. *Cerebral Cortex*; 2007; 17; 1364-1375.
14. Makris NM, Buka SL, Biederman J, Papadimitriou GM, Hodge SM, **Valera EM**, Brown AB, Bush G, Monuteaux MC, Caviness VS, Kennedy DN, Seidman LJ. Attention and executive systems abnormalities in adults with childhood ADHD: A DT-MRI study of connections. *Cerebral Cortex*, 2008; 18(5): 1210-1220.
15. Bush G, Spencer T, Holmes J, Shin LM, Surman C, **Valera EM**, Seidman LJ, Makris N, Aleari M, Mick E, Biederman J. Functional Magnetic Resonance Imaging of Methylphenidate and Placebo in Adults with Attention-Deficit/Hyperactivity Disorder during the Multi-Source Interference Task; *Archives of General Psychiatry*; 2008; 65; 102-114.
16. Biederman J, Makris N, **Valera EM**, Monuteaux MC, Goldstein JM, Buka S, Boriel DL, Bandyopadhyay S, Kennedy DN, Caviness VS, Bush G, Aleari M, Hammerness P, Faraone SV, Seidman LJ. Towards further understanding of the comorbidity between attention-deficit/hyperactivity disorder and bipolar disorder: An MRI study of brain volumes. *Psychological Medicine*. (In Press.)
17. Monuteaux MC, Seidman LJ, Faraone SV, Makris N, Spencer T, **Valera EM**, Brown A, Bush G, Doyle AE, Hughes S, Helliesen M, Mick E, Biederman J. A preliminary study of dopamine D4 receptor genotype and structural brain alterations in adults with ADHD (In Press.)

### Reviews and Chapters

1. Mukherjee D, Kerns J, **Valera EM**, Heller W. Schizophrenia: Past, present, and future [invited review of the book, *Psychopathology: The evolving science of mental disorder*]. *Contemporary Psychology* 1998; 43: 858-859.
2. Seidman LJ, **Valera EM**. The ADHD Brain. In: Biederman J, ed. *ADHD: Current understanding of etiology, diagnosis, and neurobiology*. Hasbrouck Heights, NJ: Veritas Institute 2003, pp. 25-34.
3. Seidman LJ, **Valera EM**, Bush G. Brain Function and Structure in Adults with Attention-Deficit Hyperactivity Disorder. *Psychiatric Clinics of North America* 2004; 27: 323-347.

4. Seidman LJ, **Valera EM**, Makris, N. Structural brain imaging of Attention-Deficit/Hyperactivity Disorder. *Biological Psychiatry* 2005; 57: 1263-1272.
5. Bush G, **Valera EM**, Seidman LJ. Functional neuroimaging of Attention-Deficit/Hyperactivity Disorder: A review and suggested future directions. *Biological Psychiatry* 2005; 57: 1273-1284.
6. **Valera EM**, Seidman LJ. Neurobiology of ADHD in preschoolers. *Infants and Young Children* 2006; 19: 94-108.
7. **Valera EM**, Brown AB, Seidman LJ. Neuropsychology of ADHD and other disorders of childhood. *Neuropsychology of Mental Disorders*. (In Press).

### **Theses**

Valera EM. Genetic influence on perceptual asymmetries [Masters thesis]. Urbana, IL: University of Illinois at Urbana-Champaign; 1996.

Valera EM. Brain injury in battered women: Prevalence and relationship to cognitive functioning and psychopathology [Dissertation thesis]. Urbana, IL: University of Illinois at Urbana-Champaign; 1999.

### **Abstracts (first author unpublished data only)**

1. **Valera EM**, Schmidt L, Fox N, Heller W. Perceptual asymmetry and temperament in children. *Journal of the International Neuropsychological Society* 1999; 5: 106.
2. **Valera EM**, Seidman LJ, Biederman J, Faraone SV. An fMRI study of working memory in adults with ADHD: Age Differences. *Biological Psychiatry* 2003; 53: 120S.
3. **Valera EM**, Biederman J, Faraone SV, Seidman LJ. Alexithymia in adults with attention-deficit/hyperactivity disorder (ADHD): Relationship between TAS-20 subscale scores, ADHD and its symptomatology. *Biological Psychiatry* 2006; 59: 70S.
4. **Valera EM**, Brown A, Biederman J, Faraone SV, Makris N, Monuteaux M, Vitulano M, Schiller M, & Seidman LJ. Sex differences in the functional neuroanatomy of working memory in adults with attention-deficit/hyperactivity disorder. *Cognitive Neuroscience Society Abstracts*. 2008; 123.
5. **Valera EM**, Biederman J, Zeffiro T, Rogel A, Patel M, Spencer R, Makris N, Spencer T, Faraone SV, Rosen B, & Seidman LJ. Functional abnormalities during motor control in adults with ADHD. *Biological Psychiatry*, 2008; 63: 300S.