

CURRICULUM VITAE

Lawrence Amsel, M.D., M.P.H.

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Citizenship: U.S.

Academic Appointments:

7/2008-present	Research Psychiatrist, Global Psychiatric Epidemiology Group, Division of Child and Adolescent Psychiatry, New York State Psychiatric Institute and Columbia University
7/2003-6/2008	Research Psychiatrist, Division of Therapeutics, New York State Psychiatric Institute and Columbia University
7/1995-present	Assistant Professor of Clinical Psychiatry, Columbia University College of Physicians and Surgeons
7/1999-6/2003	Research Associate for Education in Bio-ethics. The Hastings Center, Garrison, NY
7/1999-6/2001	Research Psychiatrist, Division of Child and Adolescent Psychiatry, Columbia University
7/1998-6/2000	Research Psychiatrist, Department of Neuroscience NYSPI.

Education:

5/1998	M.P.H., Public Health/Biostatistics, Columbia University Mailman School of Public Health, New York, NY
5/1988	M.D., Yale University School of Medicine, New Haven, CT
5/1979	B.A., Mathematics, Columbia College, Columbia University, New York, NY
5/1997	Non-Degree Graduate Study, Columbia University School of Journalism

Training:

7/1999-6/2000	NIMH Research Fellow, Division of Child and Adolescent Psychiatry, Columbia University
7/1994-6/1995	Freedom Forum Center Fellow, Research Topics: Analysis of healthcare reform, and journalistic representations of the reform process.
7/1992-6/1994	Fellowship Training: National Institute of Mental Health Fellowship in Mental Health Statistics and Psychiatric Research Methods at Columbia University School of Public Health.
7/1991-6/1992	Cognitive/ Dialectic Behavioral Therapy Training. Completed training program with Marsha Linehan, Ph.D. and Charles Swenson, MD on the application of Cognitive-Behavioral Group Therapy for patients with Borderline Personality Disorder.
7/1989-6/1992	Resident, Psychiatry, New York Hospital-Cornell Medical Center, Westchester Division, White Plains, NY
7/1988-6/1989	Intern, Mt. Sinai Medical Center, New York, NY

Board Certification/ Licensure:

1993 Diplomate, American Board of Psychiatry and Neurology
1993 New York State Licensure

Professional Service for Professional Organizations:

2007-present Board of Directors, *Friends of Firefighters (FoF)*
2005-present Steering Committee on Primary Care Education, *The Reach Institute for Advancing Children's Health*
1999-2000 President, New York Chapter, *American Foundation for Suicide Prevention*
1996-2000 Contributing Medical Editor, *Tikkun Magazine*
1992-1993 Medical Editor/Producer, *This Week in The New England Journal of Medicine*
This was a weekly nationally broadcast summary of the contents of the New England Journal of Medicine. Produced by the NEJM. It was a highly innovative attempt to disseminate the research published in the NEJM to practicing physicians.

Research Supports:

Active Research Support

4/1/2020 - 3/31/2024

Childhood Mass Trauma Exposure, Inflammatory Programming, and Psychopathology in Young Adulthood

R01HL152385 (Hoven & Amsel) NHLBI \$495,437

Role: Multiple Principal Investigator

Using a cohort of individuals exposed as children to the 9/11 attack, this Inflammation and Childhood Adversities and Trauma (I-CATs) Study will examine the key role that the immune / inflammatory system plays in the pathway from exposures to lifelong, negative health sequelae. Detecting the relevant immune signatures associated with CATs will enable the vast research in immune/inflammatory processes to be applied to those affected by CATs, with the potential for identifying immune/inflammatory system targets that could mitigate or even prevent those negative health consequences.

08/02/19–07/31/24

Uncovering the Risk Architecture of Suicidal Behaviors: a Representative Sample at High Risk

R01 MH117360 Hoven & Musa (MPIs) NIMH: \$2,694,345

Role: Co-Investigator

01/01/17–12/31/21

Sleep and Well-Being in High Risk Youth

R01 HL134856 Hoven (PI) NHLBI: \$1,987,426

Role: Co-Investigator

09/01/16–08/31/21

9/11Trauma and Toxicity in Childhood: Longitudinal Health and Behavioral Outcomes

U01 OH011308 Hoven (PI) NIOSH: \$1,875,094
Role: Co-Investigator

09/01/16–08/31/21

RDoC Domains Underlying Emotional Health and Trajectories of Psychopathology in Families of WTC First Responders and Evacuees: A Genome-Wide GxE Study

U01 OH011327 Hoven & Geronazzo-Alman (MPIs) NIOSH: \$1,840,217

Role: Co-Investigator

05/01/15–04/30/20

Cognitive Control in Children of SUD Parents: A Longitudinal Multimodal MRI Study

R01 DA038154 Hoven (PI) NIDA: \$2,496,657

Role: Co-Investigator

Pending Research Support

12/01/20–11/30/23

A Practical Introduction to Mathematical Models in Psychiatry for Clinical Practice

This is a grant proposal to National Library of Medicine's Grants for Scholarly Works in Biomedicine and Health, to write a book on mathematical models in psychiatry. The book has already received a book contract from oxford University press.

1 G13 LM013285-01

Amsel (PI)

NLM: \$149,995

Role: Principal Investigator

7/1/2020 - 6/30/2025

Early Life Experiences and Metabolomic Aging in High-Risk Young Adults

R01HD102410 Hoven, Bresnahan, Cheslack-Postava (MPIs) NICHD: \$499,990

Role: Co-Investigator

7/1/2020 - 6/30/2025

The Social Epigenetics of Housing on a High Risk Minority Cohort

R01 MD015399 Hoven (PI) NIMHD: \$498,980

Role: Co-Investigator

Selected Completed Support

The Impact of 9/11 on Youth: Mental Health, Substance Use and Other Risk Behaviors

U01 OH010414 Hoven (PI) 09/01/12–08/31/16 NIOSH: \$3,893,830

Role: Co-Investigator

Psychotherapies for Chronic Posttraumatic Stress Disorder

R01 MH079078 Markowitz (PI) 04/01/08–03/31/13 NIMH: \$3,065,542

Role: Clinical interventionist, applying CBT-PE intervention model to subjects and acting in supervisor role for other therapists, analyzing data and developing research reports.

SUD & Decision-Making: A Pilot Imaging Study of Parents & Children

R21 DA031975 Hoven (PI) 08/15/11–06/30/13 NIDA: \$354,612

Role: Co-Investigator

Combination Treatment for PTSD after the WTC Attack

R01 MH068173 Marshall (PI) 04/01/04–08/28/09 NIMH: \$2,288,092

Role: Clinical interventionist, applying CBT-PE intervention model to subjects and acting in supervisor role for other therapists, analyzing data and developing research reports.

R01MH067100 Jensen (PI) 07/01/03-5/30/07 NIMH: \$1,883,403

A Theory-Based Intervention to Change Physician Behavior

Role: Interventionist applying Implementation Intention Theory to change clinician behavior

Shear (PI) 04/01/03-04 Project Liberty: \$100,000

Syndrome of Traumatic Grief: A Case Based Educational Video for Project Liberty

Role: Clinical editor

Developing Mental Health Indicators for US Children and Adolescents Pro bono

Jensen (PI) 03/01/02-03 US Department of Health and Human Services

Role: Investigator

Recognizing and Treating Post-Traumatic Stress Disorder: An Educational Program for Mental Health Professionals

Marshall (PI) 01/01/02-04 New York Times Foundation: \$50,000

Role: Director of Educational Evaluation, New York Trauma Consortium

Genetic Dilemmas in Primary Care; Educating Clinicians for the Molecular Age

Section on Ethical Legal and Social Implications (ELSI) of NIH Human Genome Project

Callahan (MI) 06/01/96-12/31/00 NIH

Role: Investigator

Familial Pathways to Early-Onset Suicide Attempts

R01 MH056390 Mann (PI) 07/01/98-07/01/99 NIMH

Role: Investigator

Center for Applied Neuroscience of Bipolar Disorders

Mann (PI) 06/01/98 to 07/01/99 Stanley Foundation Research Award

Role: Investigator

Suicide Risk Detection and Prevention in Police Officers

Amsel (PI) 01/01/98-01/08/99 American Foundation for Suicide Prevention \$10,000

Role: PI and Course Director

Combination Treatment for PTSD After the WTC Attack

R01 MH068173 Marshall (PI) 04/01/04-09 NIH

Role: Investigator, Treating Clinician

Educational Contributions:

Direct Teaching

2012-present Training and Supervision of Psychiatric Epidemiology Interns and Research Assistants (RA) at the Global Psychiatric Epidemiology Group (GPEG), New York State Psychiatric Institute and Columbia University.

1995-present Bedside supervision of Residents and Medical Students on In-patient Service of New York Presbyterian Hospital, New York, NY

- 1996-present Course Director, *Introduction to Psychiatry for Epidemiology and Public Health*, Columbia University Mailman School of Public Health, New York, NY
- 2006-2010 Bedside supervision of Residents, Comprehensive Psychiatric Emergency Program, New York- Presbyterian Hospital, New York, NY
- 2001-2004 Co-ordinated and Conducted Training of Community Clinicians in Recognizing and Treating 9/11 Related PTSD in the Trauma Studies and Services Division, New York State Psychiatric Institute (NYSPI) and Columbia University Department of Psychiatry.
- 2001-2002 Distinguished Lecturer, *Theory and Practice of Science* Department of Biology, Columbia University, New York, NY
- 1996-1999 Director of Clinical Education, for the Eye-6 In-Patient Psychiatry Service, Presbyterian Hospital. Acute in-patient clinical training for psychiatry residents, psychology interns, and medical students.
- 1990-1991 Distinguished Adjunct Lecturer, *Models of the Mind*, The New School New York, NY
- 1981-1982 Adjunct Lecturer, Department of Nursing Education, Long Island University, Brooklyn, NY
- 1980-1982 Adjunct Lecturer, Remedial program in mathematical literacy for adults. Department of Mathematics, Baruch College, New York, NY

Educational Administration and Leadership

- 2006-present Course Director, *Primary Pediatric Psychopharmacology*, A Mini-Fellowship Program, Reach Institute, New York, NY
- 2001-2004 Director of Educational Research for Trauma Services and Research at New York State Psychiatric Institute. Coordinated community training of clinicians in recognition and treatment of post 9/11 PTSD. One of the largest educational outreach programs to date with over 2,000 clinicians involved. Also coordinated research on the training and published results.
- 1998-2000 Course Director for NYPD: Preventing Suicide in Police Officers, New York, NY
- 1981-1983 Assistant to the Dean for Science Education, Columbia College, New York, NY

Instructional/Educational Materials

- 2008-2009 Medical Editor in the Production of Training Video for VA Clinicians in the use of Prolonged Exposure and Emotional Processing of Traumatic Experiences
This training video was a central tool in the training for VA personnel on Evidence Based approaches to PTSD.
- 2002-2003 Medical Editor: A Case Based Educational Video: Syndrome of Traumatic Grief. This was a case-based video introduction for community clinicians on the recognition and treatment of Complicated Grief. Produced in conjunction with Kathy Shear, MD.
The video was highly distributed and is still used in training programs.
- 2001- 2003 Training Video for Clinicians: Genetic Dilemmas in Primary Care. Co-developed video training for primary care clinicians on aspect of genetics in the community practice.
This training program co-produced by the Hastings center. A video tape and educational booklet as well as web site with resources for clinicians to help them discuss genetics with their patients.

Educational Media: Selected Broadcast Medical Education – Role: Medical Producer/ Editor for the New England Journal of Medicine

1. Management of Fever in Neutropenic Cancer Patients, *This Week in The New England Journal of Medicine*, Lifetime Medical Television. May 10, 1993.
2. Drug Therapy for Hypertension, *This Week in The New England Journal of Medicine*, Lifetime Medical Television. April 5, 1993.
3. Electroconvulsive Therapy, *This Week in The New England Journal of Medicine*, Lifetime Medical Television March 29, 1993.
4. The Future of Primary Care, *This Week in The New England Journal of Medicine*, Lifetime Medical Television. March 8, 1993.
5. H. Pylori and Duodenal Ulcer Recurrence, *This Week in The New England Journal of Medicine* Lifetime Medical Television. February 8, 1993.
6. Lyme Disease Prophylaxis, *This Week in The New England Journal of Medicine*, Lifetime Medical Television. December 21, 1992.
7. Management of Head Injury, *This Week in The New England Journal of Medicine*, Lifetime Medical Television. November 23, 1992.

Clinical Activities

Practice

1995-present	Attending, Psychiatrist, New York Presbyterian Hospital, New York, NY
2001-2004	Attending, Comprehensive Psychiatric Emergency Program, New York- Presbyterian Hospital, New York, NY
2001-2003	Attending, Comprehensive Psychiatric Emergency Program, St. Luke's – Roosevelt Hospital
2001-2006	Trauma Psychiatrists Trauma Studies and Services, New York State Psychiatric Institute (NYSPI) and Columbia University Department of Psychiatry. Treated survivors of 9/11 in both clinical and research programs at New York State Psychiatric Institute.

Clinical Leadership

1997-1999	Assistant Unit Chief, New York Presbyterian Hospital In-Patient Psychiatry Service. New York, NY
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Publications:

Peer-Reviewed Original Research

1. Lin SX, Bresnahan M, Amsel L, McReynolds L, Cheslack-Postava K, Hoven CW. Adverse Childhood Experiences (aces) and Insufficient Sleep among U.S. Children and Adolescents. *Acad Pediatr*. 2022 Feb 12:S1876-2859(22)00067-5. doi: 10.1016/j.acap.2022.02.007. Epub ahead of print. PMID: 35167994.
2. He, X., Rodriguez-Moreno, D.V., Cycowicz, Y.M., Cheslack-Postava, K., Tang, H., Wang, Z., Amsel, L.V., Ryan, M., Geronazzo-Alman, L., Musa, G.J. and Bisaga, A., 2021. White matter integrity and functional connectivity in adolescents with a parental history of substance use disorder. *Neuroimage: Reports*, 1(3), p.100037.
3. Musa GJ, Geronazzo-Alman L, Fan B, Cheslack-Postava K, Bavley R, Wicks J, Bresnahan M, Amsel L, Fiano E, Saxe G, Kummerfeld E, Ma S, Hoven CW. Neighborhood characteristics and psychiatric disorders in the aftermath of mass trauma: A representative study of New York City public school 4th-12th graders after 9/11. *J Psychiatr Res*. 2021 Jun;138:584-590. doi: 10.1016/j.jpsychires.2021.05.002. Epub 2021 May 7. PMID: 33992981.
4. Rodriguez-Moreno, D.V., Cycowicz, Y.M., Figner, B., Wang, Z., He, X., Geronazzo-Alman, L., Sun, X., Cheslack-Postava, K., Bisaga, A., Hoven, C.W. and Amsel, L.V., 2021. Delay discounting and neurocognitive correlates among inner city adolescents with and without family history of substance use disorder. *Developmental cognitive neuroscience*, 48, p.100942.
5. Musa, G.J., Cheslack-Postava, K., Svob, C., Hernández, D., Tang, H., Duque-Villa, Y., Keating, W., Amsel, L., Bresnahan, M., Ryan, M. and Baccarelli, A.A., 2021. Mental health of high-risk urban youth: The housing subsidies paradox. *Race and social problems*, 13(1), pp.22-33.
6. Li, Y., Zhang, B., Zhou, Y., Wang, D., Liu, X., Li, L., Wang, T., Zhang, Y., Jiang, M., Tang, H., Amsel, L. V., Fan, F., & Hoven, C. W. (2020). Gut Microbiota Changes and Their Relationship with Inflammation in Patients with Acute and Chronic Insomnia. *Nature and science of sleep*, 12, 895–905.
7. Kishon, R., Geronazzo-Alman, L., Teichman, M., Teichman, Y., Cheslack-Postava, K., Fan, B., Duarte, C., Wicks, J., Musa, G., Djalovsky, A., Tadmor, B., Rodriguez Moreno, D., Cycowicz, Y., **Amsel, L.**, Bresnahan, M., Hoven, C., 2020. Parental Occupational Exposure is Associated with Their Children's Psychopathology: A Study of Families of Israeli First Responders. *Journal of Occupational and Environmental Medicine*.

This article examined epidemiological data collected in Israel regarding the intergenerational transmission of stress leading to psychopathology in the children of First Responders. Parental work-related variables were associated with their children's psychiatric outcomes, independently of parental psychopathology. The findings should encourage expansion of family-centered interventions to prevent or ameliorate negative effects in the second generation. Dr. Amsel made significant contributions to interpreting the analysis, and made significant contributions to writing the Results and Discussion sections and in editing and revising all sections of the manuscript.

8. Qiao, J., Wang, Z., Geronazzo-Alman, L., **Amsel, L.**, Duarte, C., Lee, S., Musa, G., Long, J., He, X., Doan, T. and Hirsch, J., 2015. Brain activity classifies adolescents with and without a familial history of substance use disorders. *Frontiers in human neuroscience*, 9, p.219.

This article demonstrated that there were significant differences in the neural substrates underlying cognitive behaviors of adolescents performing the Emotional Stroop Task that depended on whether

their parents had a history of substance use disorder. The paper shed new light onto potential neurobiological mechanisms contributing to the intergenerational transmission of SUD, and how cognitive behaviors and their associated neural structures could play a role in addiction and its transmission. This study involved interdisciplinary collaboration between neuroimaging expertise and behavioral task analysis. Dr. Amsel was instrumental in the design of the study, in the interpretation of the behavioral data and its relationship to the imaging findings, and in drafting writing and editing the behavioral aspects of the Results and Discussion sections.

9. **Amsel, L.**, Harbo, S. and Halberstam, A., 2015. There is nothing to fear but the amygdala: applying advances in the neuropsychiatry of fear to public policy. *Mind & Society*, 14(1), pp.141-152.

This paper reviewed the literature on the neuropsychiatry of fear as it relates to public policy, and points to ways that policy can be improved by including this body of knowledge in public discourse and planning. The idea for the paper came from Dr. Amsel's extensive involvement with the aftermath of 9/11. Dr. Amsel took the lead on the literature review, its interpretation and in writing the paper. Mr. Harbo and Mr. Halberstam assisted in the literature review in understanding of its significance for policy and participated in writing and editing the paper

10. **Amsel, L.V.**, Hunter, N., Kim, S., Fodor, K.E. and Markowitz, J.C., 2012. Does a study focused on trauma encourage patients with psychotic symptoms to seek treatment? *Psychiatric services*, 63(4), pp.386-389.

In a randomized trial of psychotherapies for posttraumatic stress disorder (PTSD), this paper explored why a surprisingly high percentage of study applicants presented with a history of psychotic symptoms but believed that they had been misdiagnosed and actually had PTSD. The paper discusses how stigma may drive this phenomenon and how clinicians can sensitively manage such patients. As a Co-Investigator in the parent psychotherapy study, Dr. Amsel first noted this phenomenon and organized and supervised the record review that constituted the empirical validation of this observation. Working closely with Hunter, Kim, Fodor and Markowitz, Dr. Amsel took the lead on interpreting the findings and writing initial drafts of the paper, and editing the final copy.

11. Schneier, F.R., Neria, Y., Pavlicova, M., Hembree, E., Suh, E.J., **Amsel, L.** and Marshall, R.D., 2012. Combined prolonged exposure therapy and paroxetine for PTSD related to the World Trade Center attack: a randomized controlled trial. *American Journal of Psychiatry*, 169(1), pp.80-88.

After 9/11 there were few studies of either SSRIs or CBT in treating PTSD related to terrorism. This study found that prolonged exposure therapy (a CBT) plus paroxetine (an SSRI) was more efficacious than prolonged exposure with a placebo, in the treatment of terrorism-related PTSD. It suggested that combined treatment with medication and prolonged exposure therapy should be further studied to potentially improve treatment for all forms of PTSD. Dr. Amsel collaborated with Drs. Schneier, Neria, and Marshall in conceiving and designing the study hypotheses and design, was involved in data collection, made significant contributions to the interpretation of findings and in writing the Introduction, Results, and Discussion section of the paper and in final revisions of the paper.

12. Jensen, P.S., Goldman, E., Offord, D., Costello, E.J., Friedman, R., Huff, B., Crowe, M., **Amsel, L.**, Bennett, K., Bird, H. and Conger, R., 2011. Overlooked and underserved: "action signs" for identifying children with unmet mental health needs. *Pediatrics*, 128(5), p.970.

This study sought to develop brief, easily understood, scientifically derived "warning signs" to help

parents, teachers, and the lay public to more easily recognize children with unmet mental health needs. It analyzed existing epidemiologic data sets which included symptoms on 6000 children and extracted scientifically robust symptom profiles that reflect severe, but largely untreated mental health problems in children. It is hoped that these symptom profiles, communicated as “action signs,” might help increase public awareness about children’s mental health needs and facilitate their evaluation and treatment. Dr. Amsel participated in the early conceptualizing of the paper’s hypotheses and public health goals based on his experience in health communication and dissemination. He contributed significantly to the interpretation of the data and formulation of the “warning signs”, and to the writing of the Discussion section, and participated in editing and revision of the paper.

13. Pilpel, A. and **Amsel, L.**, 2011. What is wrong with rational suicide. *Philosophia*, 39(1), pp.111-123.

This paper is a decision theory based philosophical discussion of Suicide Ethics. In particular it discusses the use and dangers of the category of rationality as a basis for understanding the ethics of suicide. The approach in this paper required the collaboration of a psychiatric and philosophical perspective. The paper therefore involved a nearly coequal contribution with the philosophical aspects taking the lead. Dr. Amsel partnered in all aspects of the paper from conceptualization through research and intense discourse through the writing and editing.

14. Schneier, F.R., Belzer, K.D., Kishon, R., **Amsel, L.** and Simpson, H.B., 2010. Escitalopram for persistent symptoms of generalized anxiety disorder after CBT: a pilot study. *The Journal of nervous and mental disease*, 198(6), pp.458-461.

This study explored acceptability and efficacy of escitalopram for persons with persistent GAD symptoms after a course of CBT. During escitalopram treatment, patients showed trends toward further improvement in GAD, depression, and quality of life. While further study is needed, the findings suggest that Escitalopram may benefit GAD patients with clinically significant symptoms after CBT.

15. Marshall, R.D., **Amsel, L.** and Suh, E.J., 2008. Response to McNally and Breslau. *American Psychologist* 2008, 63(4):283-285.

This was a response letter to comments made on the paper below. Dr. Amsel co-wrote the response with Drs. Marshall and Suh.

16. Marshall, R.D., Bryant, R.A., **Amsel, L.**, Suh, E.J., Cook, J.M. and Neria, Y., 2007. The psychology of ongoing threat: relative risk appraisal, the September 11 attacks, and terrorism-related fears. *American Psychologist*, 62(4), p.304.

In the aftermath of 9/11, there were a number of phenomena that did not fit existing clinical models. Based on those empirical findings, this paper developed an alternative model of the psychology of traumatic experience and response to explain those phenomena. The paper synthesized research and concepts from the decision theory, traumatic stress and cognitive science literatures, and proposed the term “relative risk appraisal” to capture the cognitive function that is the missing link between an event and the subjective response to it, in the 9/11 and other terrorism-related studies to date. The driving idea for this paper was to bring together concepts from the PTSD research, in which Drs. Marshall, Bryant, Neria, Sue and Cook had expertise and decision science research, in which Dr. Amsel had expertise. Dr. Amsel played a significant role in the literature searches, in conceptual

framing of the article, in bridging the interdisciplinary divide of these literatures, and in drafting and editing the final text.

17. Mann, J.J., Currier, D., Stanley, B., Oquendo, M.A., **Amsel, L.V.** and Ellis, S.P., 2006. Can biological tests assist prediction of suicide in mood disorders? *International Journal of Neuropsychopharmacology*, 9(4), pp.465-474.

Predicting suicide is difficult due to its low base-rate and the limited specificity of clinical predictors. This paper conducted a meta-analysis of prospective biological studies of suicide. The paper concludes that combinatory or sequential screening method using largely orthogonal variables that addresses both long-term traits and short-term state-dependent risk, is optimal for predicting risk. Cerebrospinal fluid 5-hydroxyindoleacetic acid (CSF 5-HIAA) and the dexamethasone suppression test (DST) are key neurobiological systems involved in suicide, and if further refined may have a role in detecting risk. Dr. Amsel contributed significantly to the initial conceptualization of the paper and to the interpretation of the metanalytic findings and to the Discussion section, which drew on Drs. Amsel and Mann's 2001 chapter on suicide process (See below).

Chapters, and Reviews

1. **Amsel, L.**, Brutzman, B. & Ananthasayan, M. Mass Disasters and Children's Mental Health: How General Systems Theory and Behavioral Economics Can Help. (2019) In C.W. Hoven, L. Amsel, & S. Tyano (Eds.), *An International Perspective on Disasters and Children's Mental Health*. New York: Springer Nature.
2. Greene, T., Gross, R., **Amsel, L.** and Hoven, C.W., 2018. The Mental Health of Children and Adolescents Exposed to 9/11: Lessons Learned and Still to be Learned. In *World Trade Center Pulmonary Diseases and Multi-Organ System Manifestations* (pp. 121-136). Springer, Cham.
3. Hoven CW, Musa GJ, Seaman F, Harbo S, Doan T, Wicks J, **Amsel L**, Carli V, Wasserman D, Mandell D. Study of Prevalence and Dynamics of Suicide Among Children and Young People (12-24 Years of Age) in Sughd Region, Tajikistan, Published by UNICEF in Russian, July 2013.UNICEF:
4. Marshall, R.D., Neria, Y., Suh, E.J., **Amsel, L.V.**, Kastan, J., Eth, S., Davis, L., Cloitre, M., Schwarzbaum, G., Yehuda, R. and Rosenthal, J., 2006. The New York consortium for effective trauma treatment. In *9/11: Mental Health in the Wake of Terrorist Attacks* (pp. 311-332). Cambridge University Press.
This chapter and the following three chapters described the training effort co-led by Dr. Amsel, in the wake of 9/11 that trained thousands of clinicians in the recognition and treatment of PTSD. At the time it was one of the largest outreach training programs of its kind.
5. Marshall, R., **Amsel, L.**, Neria, Y., Suh, E.J., "Strategies for Dissemination of Evidence-Based Treatments: Training Clinicians after Large-Scale Disasters." (2006).
6. **Amsel, L.**, Suh, E.J., Marshall, R., and Neria, Y. Enhancing Community Response in the Wake of 9/11. Training Therapists to Practice Evidence-Based Psychotherapy. In Health Impacts of 9/11: Treatment, Research, and Public Health, eds. Neria, Y., Gross, R., Marshall, R., and Susser, E., Cambridge University Press, 2005.
7. **Amsel, L.V.**, Suh, E.J., Marshall, R., and Neria, Y. Training Therapists to Treat the Psychological Consequences of Terrorism. In: The Trauma of Terrorism: Sharing Knowledge and Shared Care, An International Handbook, eds. Daneili, Y., Brom, D., and Sills, J., Haworth Press, 2005.

8. **Amsel, L.**, and Marshall, R. The Clinical Management of Sub-Syndromal Psychological Sequelae of the 9/11 Terror Attacks. In September 11: Trauma and Human Bonds, eds. Coates, S.W., Rosenthal, J., and Schecter, D.S, The Analytic Press, Hillsdale, NJ, 2003.
9. **Amsel, L.** Placidi, G.P.A., Hendin, H., O'Neill, M., and Mann J.J. An Evidence Based Educational Intervention to Improve Evaluation and Preventive services for Officers at Risk for Suicidal Behaviors. In Suicide and Law Enforcement, eds. Sheehan, D., and Warren J.I., U.S. Department of Justice, Federal Bureau of Investigation, Washington, DC, 2001, pp 17-30.

This was the first research collaboration between Columbia University Department of Psychiatry and the New York Police Department. It demonstrated the efficacy of a training for New York City Police counselors to improve detection of suicidal officers. Dr. Amsel took the lead on designing and delivering the course with significant assistance by co-authors. He took the lead in interpreting the data, as well as writing initial drafts of the paper and revising final copy.

10. **Amsel, L.**, and Mann, JJ. Suicide Risk Assessment and the Suicide Process Approach. In Understanding Suicide Behavior: The Suicide Process Approach to Research and Treatment, ed. van Heeringen, K., John Wiley & Sons, Ltd., West Sussex, England, 2001.

This chapter discussed the challenges in predicting suicide and introduced an innovative mathematical approach involving a dynamic hazard function model of time varying risk. Under Dr. Mann's mentorship, Dr. Amsel took the lead on conceptualizing the paper and in the writing and editing. Dr. Mann closely supervised the process and made significant contributions to the project.

11. **Amsel, L.**, and Mann, JJ. The Neurobiology of Suicide. In The New Oxford Textbook of Psychiatry, eds. Gelder, M.G., Lopez-Ibor Jr., J.J. and Andreasen, N.C. Oxford University Press, 2000. pp. 1045-1050.

Peer-Reviewed Posters & Abstracts

1. Rodriguez Moreno, D., Bista, K., Ryan, M., **Amsel, L.**, Hoven, C.W., Cycowicz, Y.M. (2020). Brain Activation During Immediate Reward Options in At-Risk Adolescents with Average-High and Low IQ. E-poster at the Society of Biological Psychiatry (SOBP).
2. **Amsel, L.**, Cheslack-Postava, K., Musa, G., Bresnahan, M., McReynolds, L., Gross, R., Hoven, C. (2019) The Broad Impact of Childhood Trauma: Physical-Psychiatric Comorbidity in a Cohort of Individuals Exposed to 9/11 in Childhood. APA Abstract. P8 124, 2019, p214

This poster was selected by the APA as one of four posters from a field of hundreds of posters to be presented at an APA Press Conference on May 19th, 2019. It reported on health and mental health findings of individuals (n=1,000) fourteen years after they were exposed to 9/11 as children, compared to matched unexposed controls (n=500). It reported significant increases in mental health and in comorbid mental and physical health problems. Dr. Amsel took the lead on conceptualizing and writing the poster based on field work conducted by Dr. Hoven's team. Dr. Cheslack-Postava did the statistical analysis and the other authors contributed significantly to the research, writing and editing of the poster.

3. He X, Huang S, Liu Z, Moreno DR, **Amsel L**, Musa G, Hoven C (2018), Real-time Brain States Classification using 3D Convolutional Neural Networks, Presented at The 24th Annual Meeting of the Organization for Human Brain Mapping (OHBM), Jun 17-21, Singapore. Abstract

4. Cycowicz, Y.M., Rodriguez Moreno, D., **Amsel, L.V.**, Hill, C.A., Wang, Z., He X., Hoven, C. (2018). Family History of Substance Abuse Affects Adolescents' Choices. Presented at the 25th Meeting of the Cognitive Neuroscience Society (CNS), March 24-27, Boston, MA.

This poster presented evidence that adolescent children of parents with substance use disorders (SUD) had anomalous behavior on a delay discounting task, possibly contributing to an understanding of trans generation transmission of SUD. Dr. Amsel was instrumental in designing the study and its inclusion of decision making tasks. He contributed significantly to the interpretation of the data and the writing of the poster. A paper on the same findings is in preparation with Dr. Amsel as senior author.

5. Rodriguez Moreno, D., Cycowicz, Y.M., **Amsel, L.V.**, Hoven, C. (2018). When the Emotional Stroop Task Does Not Produce a Stroop Effect. Presented at the 25th Meeting of the Cognitive Neuroscience Society (CNS), March 24-27, Boston, MA.
6. **Amsel, A.**, Hale, L., Musa, G., St-Onge, M-P, Eisenberg, R., Rodriguez Moreno, D., Hoven, C. Poor Sleep Quality and Functional Impairment Among Inner City, High-Risk Youth APA Abstract. Poster 31, Poster Proceedings p. 479 (2017)
7. **Amsel L**, Griffith E (2017) Toward a Psychiatric Game Theory: The Mathematics of Attachment, Grief and Complicated Grief. APA Rapid-Fire Talks: Focus on Neuroscience and Genetics. Syllabus and Proceedings p.110.

To our knowledge, this talk presented the first mathematical model of Complicated Grief based on Reward Learning and Game Theory. Dr. Amsel took the lead in conceiving and formulating the model in collaboration with Ms. Griffith, and took the lead on writing and presenting the talk.

8. Jensen, P.S, Man, E., Stein, R., Wolraich, M., Lynch, R., **Amsel, L.**, Bloomfield, D., Wallis, E., Zuckerbrot, R., Galanter, C., Greenhill, L., Laraque, D., Kratochvil, C., Gephart, H., Wegner, L., Kowatch, R., Riddle, M., Jaccard, J., Gollwitzer, P., Oettingen, G., Domino, M. Transforming Children's Mental Health Services by Training Pediatricians as "First-Responders, Poster Session The National Academies of Sciences, Engineering and Medicine . Forum on Promoting Children's Cognitive Affective and Behavioral Health November 2016 Washington DC.
9. **Amsel L**, Griffith E. Cross-Temporal Continuity of Identity: An OCD Informed Model. Paper presented at: 2015 Society for Philosophy and Psychology at Duke University, 2015; Durham, NC

This talk presented the clinical and philosophical implications of an innovative self-signaling, Game Theory model of OCD. Dr. Amsel took the lead in conceiving and formulating the model in collaboration with Ms. Griffith, and took the lead on writing and presenting the talk. This talk reported on further implications of the mathematical models of OCD first developed by Dr. Amsel in 2006 (see below) and elaborated in a number of subsequent presentations as listed below. To our knowledge, the 2006 presentation was the first time that mathematical models based on Bayesian Updating of Expected Utility, Markov Chains, and Game Theory were applied to OCD.

10. **Amsel L**. Symposium Director: The Evolution of Mathematical Psychiatry: Implications for Bridging DSM-5 and Research Domain Criteria (RDoCs) Using Behavioral Game Theory. Paper presented at: American Psychiatric Association Annual Meeting Symposium, 2015; Toronto, Canada.

This was a symposium in which the APA invited Dr. Amsel to organize a follow up symposium, a decade after he organized the first APA symposium on Mathematical Psychiatry. Dr. Amsel took the lead in organizing the symposium and in presenting one of its component talks.

11. He X, Geronazzo-Alman L, Lee S, **Amsel L**, Wang Z, Musa G, Duarte CS, Doan T, Hirsch J, Hoven C. White matter abnormalities in Adolescents with a Familial History of Substance Use Disorders. Paper presented at: The 21st Annual Meeting of the Organization for Human Brain Mapping; Jun. 14-18, 2015; Hawaii, USA
12. He X, Liu F, **Amsel L**, Geronazzo-Alman L, Wang Z, Musa GJ, Duarte CS, Kangarlu A, Gerber A, Duan Y, Doan T, Hirsh J, Hoven CW. Quality criteria for DTI data by assessing color-encoded fractional Anisotropy Images. *The 21st Annual Meeting of the Organization for Human Brain Mapping*. Hawaii, USA; 14-18 June 2015.
13. **Amsel L**. Towards a Psychiatric Game Theory: Self Signaling Models of Functional Psychopathologies. The 25th international Conference on Game Theory. Stony Brook, NY; 2014.

To our knowledge, this was the first presentation at major Game Theory conference of a self-signaling, Game Theory model of OCD. Dr. Amsel took the lead in conceiving and formulating the model, and took the lead on writing and presenting the talk.
14. Wang Z, Qiao J, **Amsel L**, Geronazzo-Alman L, Duarte C, Musa GJ, He X, Zhao G, Long J, Doan T, Hirsch J, Hoven CW. Subcortical atrophy in adolescents with familial history of substance use disorder. *Organization for Human Brain Mapping Annual Meeting*. Hamburg, Germany; June 8-12, 2014.
15. Qiao J, Wang Z, Hirsch J, Geronazzo-Alman L, **Amsel L**, Duarte C, Musa GJ, Long J, He X, Doan T, Hoven CW. Brain activity under emotional conflicts in adolescents that classifies familial history of SUD. *Organization for Human Brain Mapping Annual Meeting*. Hamburg, Germany; June 8-12, 2014.
16. Wang Z, Qiao J, **Amsel L**, Geronazzo-Alman L, Duarte C, Musa GJ, Doan T, He X, Hirsch J, Hoven CW. Functional and structural brain abnormalities in adolescents with familial history of substance use disorder. *Organization for Human Brain Mapping Annual Meeting*. Hamburg, Germany; June 8-12, 2014.
17. **Amsel L**. Towards a Mathematical Psychiatry – Comparing Three Computational Models of OCD: Bayesian, Markovian, and Game Theoretic. Paper presented at: Computational psychiatry conference, 2013; Miami, FL.
18. **Alman, L**. Geronazzo, S. Shen, C. S. Duarte, P. Wu, E. Lord, L. Amsel, G. J. Musa et al. "2215– Cumulative exposure to work-related incidents and current posttraumatic stress disorder in New York city's first responders." *European Psychiatry* 28 (2013):
19. **Amsel L** “Toward a Mathematical Psychiatry: The Starvation Equation. “Society for Neuroeconomics, 9th Annual Meeting, Evanston, IL: 2011

To our knowledge, this was the first mathematical model of Anorexia based on decision-theory and delay discounting. Dr. Amsel is the sole author and formulated the model, and wrote and presented the poster. The model predicted a delay discounting anomaly in Anorexia that later research independently confirmed (Steinglass, 2012).
20. **Amsel L** “Towards a Mathematical Psychiatry: Rational Modeling of Obsessive-Compulsive Repetition (OCR) with Decision and Game theory.” Society for Neuroeconomics, 8th Annual Meeting, Evanston, IL: 2010
21. **Amsel, L**. Towards a Mathematical Psychiatry: Neuroeconomics and Game Theory Models of OCD. Anxiety Disorders Association of America, 30th Annual Conference, Baltimore, MD, 2010.

22. **Amsel, L.**, and Pipel, A. Towards a Mathematical Psychiatry – Game Theory Modeling of OCD. Society for Judgment and Decision Making, Annual Meeting, Chicago, IL, 2008.

23. **Amsel, L.**, Pipel, A., and Marshall, R. A Game Theory Model of Suicide Behavior. 12th International Conference on the Foundations and Applications of Utility, Risk, and Decision Theory, Rome, Italy, 2006.

24. **Amsel, L.**, Pipel, A., and Marshall, R. Towards a Mathematical Psychiatry: Modeling Repetition Compulsion with Game Theory. Affect, Motivation, and Decision Making International Conference, hosted by the Decision Making and Economic Psychology Center, Ben Gurion University of the Negev, Israel, 2006.

To our knowledge, this was the first time that mathematical models based on Bayesian Updating of Expected Utility, Markov Chains, and Game Theory were applied to OCD. Dr. Amsel took the lead in the creation and development of these models, Dr. Pipel supplied significant input into refining these models.

25. Galanter, C.A., **Amsel, L.**, Pappadopulus, E., Gollwitzer, P., Oettingen, G., and Jensen, P. A Pilot Intervention to Change Physician Behavior. *APA Abstract*. NR120, 2004, p. 45.

26. **Amsel, L.**, Suh, E.J., Marshall, R., Neria, Y, and Carcamo, J. Evaluation of Training Workshops for Effective Trauma Treatment. International Society for Traumatic Stress Studies (ISTSS) 18th Annual Meeting, Baltimore, MD, 2002.

27. **Amsel L.** Symposium Director: Symposium on Application of Decision Theory and Game Theory to Psychiatry. Paper presented at: APA Annual Meeting 2003.

This was the first APA Symposium on mathematical models derived from Decision Theory to be applied to Psychiatry, and proposing that decisional anomalies are central to Psychiatric Disorders. As such it was a very early forerunner of the field now called Computational Psychiatry. Dr. Amsel took the lead in organizing the symposium and gave one of the component talks.

28. **Amsel, L.**, and Pipel, A. A Game Theory Model of Suicide Behavior. *APA Abstract*, 2002.

29. **Amsel, L.**, and Pipel, A. Using Decision Theory and Game Theory to Model Suicidal Behavior. Society for Medical Decision Making, 23rd Annual Meeting, 2001.

To our knowledge, this was the first time that mathematical models based on Expected Utility Theory and Game Theory were applied to suicide. Dr. Amsel took the lead in the creation and of these models, Dr. Pipel supplied significant input into refining these models.

30. **Amsel, L.** Are meta-analyses reliable? The evidence from three contradictory meta-analyses of treatments in panic disorder. *APA Abstract*. NR433, 1995, p. 174.

31. Stern, R.G., **Amsel, L.V.**, Davidson, M., and Davis, J.D. Meta-analysis of studies on carbamazepine augmentation of neuroleptic treatment in schizophrenia. *APA Abstract*. NR456, 1995, p. 178.

32. **Amsel, L.**, Shear, K.M., Devereux, R., and Kramer-Fox, R. Psychological symptoms in mitral valve prolapse: A control study. *APA Abstract*. NR153, 1992, p. 84.

33. **Amsel, L.**, Russ, M.J., and Hahn, R. Distribution of alexithymia in depressive subtypes. *APA Abstract*. NR61, 1991, p. 63.

Editorials and Commentaries

1. **Amsel, L.** Bad medicine. Tikkun Magazine 11(1): 25-28, 1996.
2. **Amsel, L.** Responding to the AMA. Tikkun Magazine 11(3): 4-5, 1996.
3. **Amsel, L.** Corporate healthcare. Tikkun Magazine 12(3): 19-26, 1997.

Books

1. **Amsel, L.** Unpredictably Rational: A Gentle Introduction to Mathematical Psychiatry, New York Oxford University Press, Expected Spring 2023
2. C.W. Hoven, **L. Amsel**, & S. Tyano (Eds.), New York: Springer. An International Perspective on Disasters and Children's Mental Health, Summer 2019.

Books/Textbooks for Medical Community

1. Contributor DSM-5 Self-Exam Questions: Test Questions for the Diagnostic Criteria Edited by Muskin PR. American Psychiatric Publishing 2014
2. Contributor: Study Guide to the American Psychiatric Publishing Textbook of Personality Disorders - 2nd edition Edited by Muskin PR. American Psychiatric Publishing 2015
3. Contributor Study Guide to Substance Abuse Treatment A Companion to The American Psychiatric Publishing Textbook of Substance Abuse Treatment, Fifth Edition Edited by Muskin PR American Psychiatric Publishing 2016

M.D. Thesis

Amsel, L. Abortion and Religious Law, 1988. Yale University Libraries.

This study examined the relationship between the evolution of Jewish religious law regarding abortion over the and the modern abortion controversy to shed light on the role religion plays in that controversy.

Selected Invited Speaking Engagements, Presentations, Symposia & Workshops:

- 2019: Lawrence Amsel, The Role of Religion / Spirituality in the Mental Health of Children Exposed to Disasters. Talk presented at World Psychiatric Association's 4th Global Meeting in Spirituality and Mental Health, Jerusalem, Israel, December 3, 2019
- Lawrence Amsel, Clinical Implications for Adolescent and Adult Psychopathology Resulting from Childhood Abuse and Neglect. Talk presented at the 2019 NHRI Forum: Toward a Bright Future--Resilience and Growth from Childhood Abuse, Taipei, Taiwan, ROC Sept. 17, 2019
- American Psychiatric Association, Annual Meeting Press Conference. Poster chosen as one of four from several hundred to be presented to the press. Title: The Broad Impact of Childhood Trauma: Physical-Psychiatric Comorbidity in a Cohort of Individuals Exposed to 9/11 in Childhood
- 2017: How Current Science of Complicated Grief Relates to The Jewish Tradition of Mourning, Chabad Symposium, Oxford University.

- 2017: American Psychiatric Association, Annual Meeting: Toward a Psychiatric Game Theory: The Mathematics of Attachment, Grief and Complicated Grief APA Annual Meeting Talk
- 2016: American Psychiatric Association, Annual Meeting, Symposium, “Ten Years Later Applying Decision Science and Game Theory to Clinical Psychiatry.”
- 2015: The Mathematics of Psychiatry: Using Game Theory to Explain Psychopathology. TedX Talk Hunter College (<https://www.youtube.com/watch?v=bAyObyDb9CU>)
- 2014: Decision-Making Models of Functional Psychopathology. Adult Psychiatry Grand Rounds, Columbia University Department of Psychiatry, July 2014
After giving grand rounds on this topic to child psychiatry, I was asked to give similar talk to the adult grand rounds within the same year.
- 2014: Towards a Mathematical Psychiatry Bridging DSM-5 and RDoC with Behavioral Game Theory. Child Psychiatry Grand Rounds, Columbia University Department of Psychiatry, February, 2014
- 2013: Columbia University, Psychiatric Epidemiology Training Program Seminar, Mailman School of Public Health, New York, NY: “Using Behavioral Economics and Game Theory to Model Psychiatric Disorders.”
- 2011: Society for Neuroeconomics, 9th Annual Meeting, Evanston, IL: “Toward a Mathematical Psychiatry: The Starvation Equation.”
- 2010: Society for Neuroeconomics, 8th Annual Meeting, Evanston, IL: “Towards a Mathematical Psychiatry: Rational Modeling of Obsessive Compulsive Repetition (OCR) with Decision and Game theory.”
- 2010: NYU Center for Neuroeconomics, New York, NY: “Game Theory, Risky Choice and Obsessive Compulsive Disorder, Common Threads in Modeling Strategic Choices.”
- 2010: New York State Psychiatric Institute, The Brain Stimulation and Therapeutic Modulation (BSTM) Division, New York, NY: “Modeling Suicidal Behaviors with Game Theory, Testing the Models with TMS.”
- 2010: New York State Psychiatric Institute, Eating Disorders Group Science Meeting, New York, NY: “Towards a Mathematical Psychiatry: Decision and Game Theory Modeling in Anorexia Nervosa.”
- 2009: Neurological Institute, Columbia University, Program for Imaging and Cognitive Sciences (PICS), New York, NY: “Modeling Repetition Compulsion with Game Theory.”
- 2007: Columbia University Department of Psychiatry, Annual Update on Psychiatry Practice, New York, NY: “Improving Treatment of Anxiety Disorders by Combining Cognitive Behavioral Therapy and Psychopharmacology.”
- 2007: City University of New York, Applied Mathematics Colloquium, New York, NY: “A Game Theory Model of OCD.”
- 2006: Columbia University, Division of Bioethics, Conference on Ethics of Genetics in Research, New York, NY: “Genetic Privacy.”
- 2003: American Psychiatric Association, 156th Annual Meeting, Symposium, San Francisco, CA: “Applying Decision Science and Game Theory to Clinical Psychiatry.”

- 2002: New York State Psychiatric Institute, Anxiety Disorders Clinic, New York, NY: "Applying Behavioral Decision Making to Clinical Psychiatry and Mental Health."
- 2000: Columbia University, Interdisciplinary Seminar in Human Decision-Making, New York, NY: "Understanding and Preventing Suicide. A Possible Role for Decision Theory and Game Theory."
- 2000: New York State Psychiatric Institute, Seminar on Complexity, Neurobiology and Behavior, New York, NY: "Complex Adaptive Systems Theory and its Potential Applications in Psychiatry."
- 1999: FBI Academy, Conference on Suicide and Law Enforcement, FBI Behavioral Science Unit, Quantico, VA: "An Educational Program to Reduce Suicide in the New York City Police Department."
- 1997: Columbia University, Faculty Seminar, New York, NY: "Management of Split Treatment: Special Considerations when Psychopharmacology and Psychotherapy are administered separately."
- 1996: Columbia University, Faculty Seminar on Computers, Man and Society, New York, NY: "The Effect of Digital Multimedia on the Doctor Patient Relationship."
- 1995: Columbia University, Department of Sociomedical Sciences, New York, NY: "The Role of Mass Media in the Health Care Reform Debate."