

# Arshya Vahabzadeh M.D.



#### Overview

I am the CEO of Orbit Health, and a triple-board certified psychiatrist with over 18 years of postgraduate training/experience. I am particularly interested in the application of digital interventions to augment clinical care, and one of my passions is to build innovative integrated health care models that maximize quality and decrease cost. I have been fortunate to have been recognized by over 20 national and international awards.

#### **Board Certification**

Current

Child & Adolescent Psychiatry American Board of Psychiatry & Neurology American Board of Psychiatry & Neurology Addiction Medicine American Board of Preventative Medicine

Historic

Family Medicine Royal College of General Practitioners (United Kingdom)

#### **Licensed States**

California, Hawaii, Massachusetts, Pennsylvania, Utah.

#### **Notable Prior Roles**

Brain Leadership Team, Massachusetts Institute of Technology (MIT) SOLVE
Advisor, Harvard University Innovation Lab
Invitee, US State Department Initiatives Related to Global Security
Invitee, White House Meetings Related to Digital Accessibility & Cultural Issues
Editor-In-Chief, American Journal of Psychiatry Residents Journal
Editor at Innovations in Clinical Neuroscience Journal
Chairperson, Council on Communications, American Psychiatric Association
Joint Reference Committee, American Psychiatric Association
Researcher, experimental projects related to Department of Defense awards (W81XWH 17-1-0449 &

W81XWH-14-C-0007), with additional support from Google X, AWS, and Affectiva (Emotion AI).

#### Academic & Education

Faculty in Psychiatry, Harvard Medical School (2015-2017)
Child and Adolescent Psychiatry Fellowship, Harvard Medical School/Mass General (2013-2015)
Adult Psychiatry Residency, Emory University (2010-2013)
Core Psychiatric Training, Royal College of Psychiatrists (2008-2010)
Family Medicine Residency, Royal College of General Practitioners, England (2004-2008) Medical School, University of Birmingham, England (1999-2004)

#### Think Tank & Advocacy

Enterprise Club, American Enterprise Institute (AEI) Member, PAAIA NexGen Advisory board, Special Needs Network

### **Invited Speaking**

Various settings including Stanford University X, Harvard University, Google, ealth 2.0, Stanford Medicine X, Partners Healthcare Connected Health Symposium, The Digital Health Summit, Google, MedTech Boston, and Autism Speaks.

#### **Examination Outcomes**

MRCGP: all components passed first attempt United States Medical Licensing Examinations

Step 1: 99th centile Step 2: 99th centile Step 3: 99th centile

Board Exam in Psychiatry: Score 333 (passing score 239)

Board Exam in Addiction Medicine: Score 531 (passing score 448)

#### **Prizes and Awards**

2017 PAAIA Emerging Leaders Program

2016 Aspen Institute Spotlight Health Scholarship

2016 CNS Summit Innovation Scholar

2015 IVY Innovators Award in Tech Finalist, IVY Connect

2015 "40 under 40" Healthcare Innovator, MedTechBoston

2015 Highly Commended Paper Award for Excellence, Emerald Publishing

2014 Social Media Competition Winner, Exponential Medicine Conference & Singularity University

2014 MCAT Video Competition Winner, Khan Academy/RWJF/AAMC (10 winners selected globally)

2014 Minority Fellowship, Substance Abuse & Mental Health Services Administration (SAMHSA)

2014 Donald Cohen Fellowship, International Association for Child and Adolescent Psychiatry

2014 Partners in Excellence Award, Partners Healthcare (MGH/Brigham Womens)

2014 Healthcare Fellow, The American Resident Project (WellPoint)

2013 Excellence in Medicine Leadership Award, American Medical Association Foundation

2013 Laughlin Fellow, American College of Psychiatrists (10 psychiatrists selected annually)

2013 IMG Fellow, American Association of Directors of Psychiatric Residency Training

2013 BRAIN Scholar, National Institute of Mental Health (NIMH/AADPRT)

2013 Resident Recognition Award, American Psychiatric Association

2012 Leadership Fellow, American Psychiatric Association (5 psychiatrists selected annually)

2012 AACAP Educational Outreach Program for General Psychiatry Residents

2012 Autism Research Travel Award, The Childhood Autism Foundation

2011 Emory University Department of Psychiatry Medical Student Teaching Award

2011, 2012, 2013 Joe & Hope Skobba Memorial Resident Research Award (1st,2nd,3rd place)

2009 East Midlands School of Psychiatry Trainee Portfolio Prize 1st Place

2009 Royal College of Psychiatrists (Trent Division) Poster Presentation Prize Winner

2009 Royal College of Psychiatrists (Trent Division) Foundation Audit Prize Coauthor

#### **Academic Publications**

# **Published Papers**

- 1. Eyre HA, Vahabzadeh A, Abbott R, Cook IA, Berk M. The Future of Psychiatry Commission. The Lancet Psychiatry. 2018;5(1):13.
- 2. Kalali A, Richerson S, Vahabzadeh A. Digital Technologies in Alzheimers Disease Clinical Trials. Alzheimer's & Dementia: The Journal of the Alzheimer's Association. 2017;13(7):P932.
- 3. Keshav N, Vahabzadeh A, Abdus-Sabur R, Huey K, Salisbury J, Liu R, et al. Longitudinal Socio-Emotional Learning Intervention for Autism via Smartglasses: Qualitative School Teacher Descriptions of Practicality, Usability, and Efficacy in General and Special Education Classroom Settings. Education Sciences. 2018;8(3):107.
- 4. Keshav NU, Salisbury JP, Vahabzadeh A, Sahin NT. Social communication coaching smartglasses: well tolerated in a diverse sample of children and adults with autism. JMIR mHealth and uHealth. 2017;5(9).
- 5. Liu R, Salisbury JP, Vahabzadeh A, Sahin NT. Feasibility of an autism-focused augmented reality smartglasses system for social communication and behavioral coaching. Frontiers in pediatrics. 2017; 5:145.
- 6. Sahin N, Keshav N, Salisbury J, Vahabzadeh A. Safety and Lack of Negative Effects of Wearable Augmented-Reality Social Communication Aid for Children and Adults with Autism. Journal of clinical medicine. 2018;7(8):188.
- 7. Sahin NT, Abdus-Sabur R, Keshav NU, Liu R, Salisbury JP, Vahabzadeh A, editors. Case Study of a Digital Augmented Reality Intervention for Autism in School Classrooms: Associated with Improved Social Communication, Cognition, and Motivation as rated by Educators and Parents. Frontiers in Education; 2018: Frontiers.
- 8. Sahin NT, Keshav NU, Salisbury JP, Vahabzadeh A. Second Version of Google Glass as a Wearable Socio-Affective Aid: Positive School Desirability, High Usability, and Theoretical Framework in a Sample of Children with Autism. JMIR human factors. 2018;5(1).
- 9. Schwartz AC, McDonald WM, Vahabzadeh AB, Cotes RO. Keeping Up With Changing Times in Education: Fostering Lifelong Learning of Millennial Learners. Focus. 2018;16(1):74-9.
- 10. Vahabzadeh A, Keshav N, Abdus-Sabur R, Huey K, Liu R, Sahin N. Improved Socio-Emotional and Behavioral Functioning in Students with Autism Following School-Based Smartglasses Intervention: Multi-Stage Feasibility and Controlled Efficacy Study. Behavioral Sciences. 2018;8(10):85.
- 11. Vahabzadeh A, Keshav NU, Salisbury JP, Sahin NT. Improvement of Attention-Deficit/Hyperactivity Disorder Symptoms in School-Aged Children, Adolescents, and Young Adults With Autism via a Digital Smartglasses-Based Socioemotional Coaching Aid: Short-Term, Uncontrolled Pilot Study. JMIR mental health. 2018;5(2).
- 12. Vahabzadeh A, Sahin N, Kalali A. Digital suicide prevention: can technology become a game-changer? Innovations in clinical neuroscience. 2016;13(5-6):16.
- 13. McDougle, C.J., Landino, S.M., Vahabzadeh, A., O'Rourke, J., Zurcher, N.R., Finger, B.C., Palumbo, M.L., Helt, J., Mullett, J.E., Hooker, J.M. and Carlezon, W.A., 2015. Toward an immune-mediated subtype of autism spectrum disorder. Brain research, 1617, pp.72-92.
- 14. Freedman, R., Lewis, D. A., Michels, R., Pine, D. S., Schultz, S. K., Tamminga, C. A., Vahabzadeh, A. (2013). 2013 in Review. American Journal of Psychiatry, 170(12), 1388-1392.
- 15. Vahabzadeh, A, McDougle CJ. Maternal folic acid supplementation and risk of autism. JAMA. 2013 Jun 5;309(21):2208. doi: 10.1001/jama.2013.4876. PubMed PMID: 23736720.
- 16. Vahabzadeh A. With Change Comes Opportunity, American Journal of Psychiatry Residents Journal. Vol 8, Issue 12, December 2013
- 17. Vahabzadeh A. Buxton D. Stigler KA. McDougle CJ. The Current State and Future Prospects of Pharmacological Interventions for Autism. Neuropsychiatry April 2013, Vol. 3, No. 2, Pages 245-259, DOI 10.2217/npy.13.22 (doi:10.2217/npy.13.22)
- 18. Delafon, V., Kiani, R., Barrett, M., Vahabzadeh, A., Vaidya, H., Walker, G., & Bhaumik, S. (2013). Use

- of PRN medication in people with ID. Advances in Mental Health and Intellectual Disabilities, 7(6), 4-4.
- 19. Vahabzadeh A. McDonald WM. Physicians' warnings for unfit drivers and risk of road crashes. New England Journal of Medicine. 2013 Jan 3;368(1):86-7. doi: 10.1056/NEJMc1212928#SA1. PubMed PMID: 23281993.
- 20. Delaffon, V., Naik, S., Mann, R., Vahabzadeh, A., Millward, T., Majeed, A., & Pant, A. (2013). Diagnosis and treatment of Wernicke's encephalopathy in an in-patient alcohol detoxification unit: a completed audit cycle. The Psychiatrist, 37(12), 384-388.
- 21. Minhas HM, Vahabzadeh A, Autism Spectrum Disorder in DSM-5. American Journal of Psychiatry Residents Journal Vol 8 Issue 5, May 2013
- 22. Carr ER, Woods AM, Vahabzadeh A, Sutton C, Wittenauer J, Kaslow NJ. PTSD, Depressive Symptoms, and Suicidal Ideation in African American Women: A Mediated Model. J Clin Psychol Med Settings. 2012 Jul 17. PubMed PMID: 22802144
- 23. Mitchell AJ, Vahabzadeh A, Magruder K. Screening for distress and depression in cancer settings:10 lessons from 40 years of primary-care research. Psychooncology. 2011 Jun;20(6):572-84. doi: 10.1002/pon.1943. Epub 2011 Mar 27. PubMed PMID: 21442689
- 24. Vahabzadeh A. Buxton D. Don't Let Borders Limit Your Perspective, Psychiatric News. Jan 2013, Vol 48, No 1, pg29
- 25. Vahabzadeh A. Wittenauer J, McDonald WM. Web-based involuntary-commitment educational project for emergency medicine residents: an interdepartmental quality initiative. Acad Psychiatry. 2013 Jan 1;37(1):64-5. doi: 10.1176/appi.ap.12050097. PubMed PMID: 23338880.
- 26. Vahabzadeh A. Adolescents with Autism Spectrum Disorders, A time of challenge and opportunities. AACAP News, Jan 2013 44(1)
- 27. Goldsmith, D, Vahabzadeh A. Minimizing metabolic risk. Current Psychiatry 2013, 12. 4
- 28. Vahabzadeh A, Schwartz AC. Disease characteristics should be taken into account when comparing attitudes and levels of stigma toward psychiatric and medical conditions. Acad Psychiatry. 2012 Nov 1;36(6):499-500. doi: 10.1176/appi.ap.12070135. PubMed PMID: 23154708.
- 29. Vahabzadeh A. Duncan E. Caution with Prazosin. Current Psychiatry, August 2012 Vol 11 No.8 E1-2
- 30. Vahabzadeh A, Wittenauer J, Carr E. Stigma, schizophrenia and the media: exploring changes in the reporting of schizophrenia in major U.S. Newspapers. J Psychiatr Pract. 2011 Nov;17(6):439-46. PubMed PMID: 22108403.
- 31. Vahabzadeh A. ADHD, Research Challenges and the Dopamine Hypothesis. Am J Psychiatry Res J. 2012 July Vol7lss7 pg3-5.
- 32. Vahabzadeh A. Wittenauer J. Reaping the Rewards of Collaboration. Psychiatric News Volume 47 Number 9 page 16b-16b.
- 33. Vahabzadeh A, Long T. Overview of the Genetics of Autism. Am J Psychiatry Res J. Vol6 Iss11 pg3-5
- 34. Vahabzadeh A, Goldberg R, Wittenauer J, Posse PR, Juul S. Residents benefit from insights into the role and challenges of psychiatry departments. Academic Psychiatry. 2011 Jul-Aug;35(4):273. PubMed PMID: 21913372
- 35. Vahabzadeh A. What is interventional psychiatry? Am J Psychiatry Res J. October 2011 Volume 6 Issue 10 pg 9
- 36. Vahabzadeh A. Book Review of Autism Spectrum Disorders in Infants and Toddlers: Diagnosis, Assessment, and Treatment, Katarzyna Chawarska, Ami Klin, Fred R Volkmar. Am J Psychiatry Res J Vol6 lss11 pg14
- 37. Vahabzadeh A, Juul S. New Duty-Hour Rules Present Opportunities for Residents. Psychiatric News June 3, 2011 Volume 46 Number 11 Page 23
- 38. Wittenauer J, Vahabzadeh A, Reducing and Preventing Cannabis Use in High-Risk Patients. Am J Psychiatry Res  $J_{SEP}^{-1}$ 2011, 6:13-15
- 39. Vahabzadeh A, Delaffon V, Abbas M. Acetylcholinesterase inhibitors in Alzheimer's dementia An Update. GM2[ste]Neurology and Mental Health 2010
- 40. Delaffon V, Vahabzadeh A, Naik S, Kinnair D, Bruce J. Cappras Syndrome in a Patient with Severe Hyponatraemia. German J Psychiatry 2010;13 (4): 175-177
- 41. Vahabzadeh A, Wittenauer J, Recession Imposes New Challenges on Psychiatric Care.

PsychiatricNews December 3, 2010 Volume 45 Number 23 Page 36

- 42. Vahabzadeh A, Wittenauer J: Treatment of Neuroleptic Malignant Syndrome with Electroconvulsive Therapy. Am J Psychiatry Res J 2010; 5 11:12–13
- 43. Vahabzadeh ABN, Delaffon V, Abbas M, Biswas AB. Severe Learning Disability. InnovAiT, February 1, 2011; 4(2):91
- 44. Biswas AB, Vahabzadeh A, Hobbs T, Healy JM. Obesity in people with learning disabilities: possible causes and reduction interventions. Nurs Times. 2010 Aug 10-16;106(31):16-8. PubMed PMID:20806643
- 45. Vahabzadeh ABN, Delaffon V, Biswas A, (June 2010) Meeting the Healthcare needs of People with Learning Disability. InnovAiT, June 1, 2010; 3(6): 328 332.
- 46. Vahabzadeh A, Abbas M, Boyle A. National Dementia Strategy. Br J Gen Pract. 2010 May;60(574):372-3. PubMed PMID: 20423588; PubMed Central.

# **Published Book Chapters**

- 1. Vahabzadeh A., Landino, S.M., Finger, B.C., Carlezon Jr, W.A. and McDougle, C.J., 2015. Neural Targets in the Study and Treatment of Social Cognition in Autism Spectrum Disorder. In Cognitive Enhancement (pp. 309-334). Springer International Publishing.
- 2. Vahabzadeh A, Gillespie C, Ressler K. Anxiety Disorders and PTSD in Zigmond MJ, Coyle JT, Rowland LP Neurobiology of Brain Disorders: Biological Basis of Neurological and Psychiatric Disorders Elsevier Science, Nov 2014.
- 3. Vahabzadeh A, McDougle CJ. Obsessive Compulsive Disorder in McManus LM, Mitchell R Pathobiology of Human Disease: A Dynamic Encyclopedia of Disease Mechanisms. Elsevier Science, 2014.
- 4. McDonald W, Vahabzadeh A. Chapter 23 ECT and Neuromodulation in the Treatment of Late- Life Mood Disorders in Lavretsky H, Sajatovic M, Reynolds C, Late-Life Mood Disorders, Oxford University Press 2013
- 5. Vahabzadeh A, Beresin G, McDougle CJ. Temper Tantrums in Barnhill, J. DSM-5 Clinical Cases, American Psychiatric Publishing 2013.

## **Poster Presentations**

- 1. Teed KB, Vahabzadeh A, Cubells JC. Clinical experience implementing chromosomal microarray analysis (CMA) in a clinical psychiatric practice for adults with autism spectrum disorders (ASD) and related neurodevelopmental disorders. American Society of Human Genetics, Boston, October 2013
- 2. Vahabzadeh A, Wittenauer J, Goldsmith D, Schwartz A. Social Media Engagement and Portrayal of Antidepressant Medication. APA annual meeting, San Francisco, May 2013
- 3. Vahabzadeh A, Wittenauer J, Lloyd RB, D'Orio B. Medicolegal Documentation For Involuntary Commitment: An Interdepartmental Educational Initiative for Residents. Georgia Psychiatric Physicians Association meeting, Atlanta, USA Feb 2012.
- 4. Vahabzadeh A, Martin C.L, Moreno-De-Luca D, Cubells J. Identification of potentially etiologic copy number variations in adults with intellectual disability and autistic spectrum disorders using array Comparative Genomic Hybridization. Presented at the Cell Symposia: Autism Spectrum Disorders: From Mechanisms to Therapies November 2011, Arlington, VA
- 5. Vahabzadeh A, Carr E, Wittenauer J. Improving Prosocial Behavior in Autism Spectrum Disorders: An Overview of Intranasal Oxytocin. Atlanta Autism Consortium, Atlanta, May 2011.
- 6. Lloyd RB, Garrido PJ, Lakia A, Bennasar M, Wittenauer J, Carr E, Vahabzadeh A. A content analysis of newspaper articles describing Posttraumatic Stress disorder in the United States and United Kingdom. American Psychiatric Association Meeting, Hawaii, May 2011.
- 7. Carr E, Wood A, Vahabzadeh A, Wittenauer J, Kaslow N. Illuminating the Comorbidity of PTSD, Depressive Symptomatology, and Suicidal Ideation in African American Women: A Mediated Model. American Psychological Association Meeting, Washington D.C, 2011
- 8. Carr E, Vahabzadeh A, Wittenauer J. A Content Analysis of Bipolar Disorder related video media on Youtube.com. American Psychological Association Meeting, Washington D.C, August 2011

- 9. Vahabzadeh A, Wittenauer J, Carr E. Schizophrenia, Murder and Newspapers Investigating the reporting of Schizophrenia in Georgia's Newspapers. Georgia Psychiatric Physicians Association meeting, Atlanta, USA Feb 2011.
- 10. Vahabzadeh A, Wittenauer J, Carr E. Searching for Schizophrenia: Exploring the depiction of Schizophrenia on Youtube.com. Georgia Psychiatric Physicians Association meeting, Atlanta, USA Feb 2011
- 11. Abbas M, Vahabzadeh A, Reid C, Boyle A. Experience of dementia care: Survey of general practice trainees in the East Midlands. RCGP Annual Primary Care Conference 2010; Harrogate, United Kingdom. October 2010
- 12. Delaffon V, Vahabzadeh A, Milward T, Naik S, Taylor A, Pant A Diagnosis and Management of Wernicke's Encephalopathy by Trainees in Psychiatry. The Faculty of Addictions Royal College of Psychiatrists; Bristol, United Kingdom. April 2010
- 13. Dhanji T, Meghji S, Thomas D, Vahabzadeh A, Benaris M, Delaffon V, Khoosal D.. Re-audit of lithium monitoring in City East adult patients on the lithium register. Royal College of Psychiatrists; Rotherham, United Kingdom. October 2009
- 14. Vahabzadeh A, Delaffon V, Khoosal D. Survey of psychiatrist's attitudes to pharmaceutical industry sponsorship and hospitality. Royal College of Psychiatrists; Rotherham, United Kingdom. October

#### **Past Media Related Publications**

- 1. Can Machine Learning Decode Depression? Huffington Post Feburary 23rd 2016
- 2. Autism, It's a HOT focus for Tech, Huffington Post, March 4th 2015
- 3. Children of Color and Autism: Too Little, Too Late, Huffington Post, October 11th
- 4. 2014 Asperger's Is Accused but Still Not Guilty, Huffington Post, June 6, 2014
- How Will Google Glass Affect Medicine? Boston Magazine, April 14, 2014
- 6. What Is Autism Spectrum Disorder? The Clay Center for Young Healthy Minds, December 2, 2013
- 7. How Autism Highlights Health Care Challenges. Huffington Post, November 27, 2013
- 8. Autism: A Whole Body Disorder? Huffington Post, September 23, 2013
- 9. What Causes Autism Spectrum Disorder? Huffington Post, August 5, 2013
- 10. Minority children with autism lack access to specialists, CNN Health, June 17th 2013
- 11. New Insights into Pregnancy and Autism, Boston Magazine, September 3, 2013
- 12. E-Cigarettes: A Doctor's Perspective, Boston Magazine, October 21, 2013
- 13. Diagnosing ADHD by brain waves? PsychologyToday, July 21, 2013
- 14. Brainwave Neurofeedback for Autism: Can It Help? PsychologyToday, June 12, 2013
- 15. Four Tips to Keep a Child With Autism Safe From Wandering, PsychologyToday, June 11, 2013
- 16. The Trust Hormone: How Oxytocin Can Help Treat Autism, PsychologyToday, June 11, 2013
- 17. What is Diagnostic Overshadowing? And 5 Strategies We Can Use to Minimize it. CurbsideConsults July 23 2013
- 18. Cyberbullying: an Update on Intimidation in the Digital Playground APA HealthyMinds, 2013
- 19. Depression in People with Parkinson's Disease APA HealthyMinds, April 23, 2013
- 20. What to expect for your first visit with your psychiatrist APA HealthyMinds, March 21, 2013
- 21. Sleep Hygiene: 5 practical tips for more refreshing sleep APA HealthyMinds, November 14, 2012
- 22. Safety Tips for Children with Autism Who Wander APA HealthyMinds, October 18, 2012