ANDREW TUBBS

CURRENT POSITION Graduate Research Associate University of Arizona MD/PhD Program

SCIENTIFIC EXPERIENCE

GRADUATE RESEARCH ASSOCIATE, SLEEP AND HEALTH RESEARCH PROGRAM (SHRP), UNIVERSITY OF ARIZONA, DEPARTMENT OF PSYCHIATRY

July 2017 to present

- The Sleep and Health Research Program directed by Michael Grandner, PhD, is a behavioral sleep research lab that studies how sleep and sleep behaviors influence human health.
- As a Graduate Research Associate, I am training in study design, research methods, and statistical analysis of sleep data and human research, as well as behavioral and clinical aspects of sleep medicine.
- My doctoral work focuses on sleep and circadian rhythms in suicide and serious mental illness.

RESEARCH VOLUNTEER, GOTHARD LAB, UNIVERSITY OF ARIZONA

January 2016 to January 2017

- The Gothard Lab is a neurophysiology lab that studies the amygdala and its relation to emotion, perception, and general physiology in rhesus macaques.
- My experiences in the Gothard Lab involved the training and use of primates in research, as well as the ethical considerations in this field. I also analyzed neurophysiology data as part of a project studying amygdala stimulation and respiratory apnea.

RESEARCHER, INFANT SIBLING STUDY, UC DAVIS MIND INSTITUTE

February 2011 to November 2013

• The Infant Sibling Study is a longitudinal cohort study of probands that tracks children from six months to three years old to identify early warning signs of autism.

• I served as a volunteer and was then hired as a student worker and then a Junior Specialist following my graduation. My duties involved data collection and management, behavioral coding, and data analysis for several studies. I also developed and presented an independent research project at an undergraduate research conference. Additionally, I trained and managed undergraduate volunteers, as well as coordinated and collected blood specimens for a multi-site genetics study.

SOCIETY FOR BEHAVIORAL SLEEP MEDICINE SCIENTIFIC MEETING (2020)

• **Presentation:** "Insomnia while depressed increases likelihood for suicidal thoughts and behaviors in a nationally representative sample". Using data from the National Survey on Drug Use and health, I showed that individuals who were depressed and had insomnia were more likely to report suicidal ideation than those who were depressed without insomnia. Thus, insomnia is a suicide risk factor above and beyond the presence or severity of depression.

SLEEP (2020)

CONFERENCES AND

PRESENTATIONS

- **Poster:** "Morning wakefulness is associated with reduced suicidal ideation in a nationally-representative US sample." Using data from the National Health And Nutrition Examination Survey, I show that individuals who were awake during the night (11pm-5am) were more likely to report suicidal ideation, while those awake in the morning (5am-11am) were less likely to report suicidal ideation. This confirms prior work in a community sample and expands these findings to a nationally-representative sample.
- Poster: "Habitual Daytime Sleepiness and the Timing of Use of Alcohol, Tobacco, and Caffeine." Using data from a community sample, I show that individuals reported higher sleepiness scores when they used alcohol at night or in the morning, used tobacco in the afternoon or at night, or used caffeine in the midday or afternoon. These data provide preliminary evidence that the timing of substance use affects subjective daytime sleepiness.

SOCIETY FOR BEHAVIORAL SLEEP MEDICINE SCIENTIFIC MEETING (2019)

• **Poster:** "Nocturnal suicide risk across months and methods." Using data from the National Violent Death Reporting System, we showed that, across demographics and geographics, the nocturnal risk of

suicide was always higher than the risk at other times of day. This effect was consistent across months and methods of suicide. This was an expanded analysis of the data presented at SLEEP 2018.

SLEEP (2019)

• **Talk:** "Sleep Timing and the Prevalence of Suicidal Ideation in a Community Sample". Using data from a cross-sectional questionnaire of 1000 adults, we demonstrated that those who report suicidal ideation are a greater proportion of those who are awake in the early morning (2-4AM) than those who report no suicidal ideation. Additionally, more time spent awake at night was associated with increased suicidal ideation frequency, and more time spent awake in the morning was associated with decreased suicidal ideation frequency.

SLEEP (2018)

- **Poster:** "Seasonal Changes in Nocturnal Suicide Risk". Using data from the National Violent Death Reporting System and the American Time Use Survey, we analyzed whether the likelihood that completed suicides occurred at night changed across the calendar year. We concluded that the completed suicides occurred at higher than expected rates at night, and that this did not change across years.
- **Talk:** "Does Increased Risk for Suicide at Night Favor One Method of Suicide Over Another?" Using data from the National Violent Death Reporting System and the American Time Use Survey, we analyzed whether the method of completed suicide varied over a 24 hour period. We concluded that the likelihood of completed suicide was higher at night regardless of method, and that there was no difference in the use of methods at night.

SOCIETY FOR RESEARCH IN CHILD DEVELOPMENT (2013)

• **Poster:** "Families Raising Children with Autism: Parenting Behaviors during Play in High- and Low-Risk Samples". It is unknown if parents of infants with autism demonstrate play with their children in a quantitatively different manner than do parents of typical children. The goal of the study was to quantify any differences between parent-infant play behaviors in high and low risk cohorts. We concluded that there were no significant differences between parents of at-risk or typical children in play behaviors.

23RD ANNUAL UNDERGRADUATE RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITIES CONFERENCE (2012)

• **Poster:** "Parent-Infant Synchrony: A Quantitative Definition of Early Childhood Social Interactions". It is unknown if infants who later develop autism demonstrate different play behaviors with their mothers when compared to typical infants. The goal of this project was to quantify infant-parent play behaviors during a play task and identify sequences of behaviors that differed between at-risk and typical children. The method developed here formed the basis for subsequent studies of play behaviors in children diagnosed with autism.

CLINICALSLEEP EXTERN, EARLY PSYCHOSIS INTERVENTION CENTER AND BANNEREXPERIENCEWHOLE HEALTH CLINIC

July 2018 to Present

- The Early Psychosis Intervention Center (EPICenter) is a 5-year firstepisode psychosis treatment program in Tucson, AZ. The program consists of a multidisciplinary team providing psychiatric, psychological, social, and vocational interventions. The EPICenter program is part of the Whole Health Clinic, an integrated family medicine/psychiatry clinic.
- As the Sleep Extern, I provide group and individual cognitive behavioral therapy for insomnia (CBTI) for clinic members. I also design and implement research studies of sleep in serious mental illness.

CLINIC COORDINATOR, UNIVERSITY OF ARIZONA MIND CLINIC

September 2015 to April 2017

- The MIND Clinic is a free, student-run outpatient psychiatry clinic that offers psychiatric treatment to children and adults in English and Spanish.
- I worked with psychiatrists and fellow students to create the clinic, which officially launched in January 2016. I set up the electronic medical record, created recruitment/publicity materials, developed the clinic protocols, trained student volunteers, and recruited volunteer physicians. In addition, I operated the clinic one or more times a month (the clinic is open Monday nights only). I also

partnered with the Educational Psychology PhD program to provide therapy services to minors.

SURGERY ORDERLY, HELPS INTERNATIONAL GUATEMALA

May 2014, April 2015, April 2016, April 2017, April 2018, May 2019

- I travel with a team of doctors, nurses, dentists, and other health professionals to a makeshift hospital in rural Guatemala.
- My role as surgery orderly is to clean the operating room between surgeries, wash and sterilize surgical instruments, move patients about the hospital, and perform any other tasks necessary to support the surgical team.
- Through this experience I have observed hundreds of surgical procedures, as well as learned about the challenges of providing medical services in rural, developing countries. By interacting with patients, I've learned about both native and Spanish Guatemalan cultures and the cultural/societal barriers that exist to providing quality health care in rural areas.

EDUCATIONALSTUDENT MEMBER, MD/PHD EXECUTIVE COMMITTEE, UNIVERSITY OFEXPERIENCEARIZONA COLLEGE OF MEDICINE - TUCSON

July 2019 – June 2020

- The MD/PhD Executive Committee oversees all other committees within the UACOM-Tucson MD/PhD program organization, and consists of two student members, both program co-directors, and the program administrative assistant.
- As a student member, I oversee four subcommittees addressing monthly colloquia, student progress, wellness, and professional organizations and assist the program directors in administration of the MD/PhD program.

TEACHING ASSISTANT, NERVOUS SYSTEM BLOCK, UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE – TUCSON

Fall 2017, Fall 2018

• The Nervous System Block is an 8-week intensive course in neuroscience, neurology, and psychiatry provided to 1st year medical students.

• I held bi-weekly office hours, created learning guides and video reviews, and led anatomy review sessions to support student learning and assist faculty in delivering content.

PEER-TUTOR, OFFICE OF STUDENT DEVELOPMENT, UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE – TUCSON

October 2017 to May 2020

- Peer-tutors in the College of Medicine provide academic support to near-level colleagues on content taught in the medical curriculum.
- I help peers understand difficult content, improve study and learning methods, and provide encouragement and support. Recently, I have focused on supporting students in the Pathways to Medical Admissions Program (PMAP), an admissions program for underrepresented minorities into the College of Medicine.

CURRICULUM RENEWAL, PRE-CLINICAL SUBCOMMITTEE MEMBER, UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE – TUCSON

July 2016 to October 2016

- Curriculum Renewal was a program to evaluate and redesign the undergraduate medical education at the University of Arizona College of Medicine Tucson. The Pre-Clinical Subcommittee was tasked with converting the 2-year preclinical curriculum into an 18-month curriculum
- As a student member of the Pre-Clinical Subcommittee, I worked with faculty and students to propose changes to the curriculum, evaluate proposed changes to educational methods and tools, and vote on the final schedule for 2017-2018 academic year.

POST-BLOCK ADVISORY COMMITTEE MEMBER, UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE – TUCSON

August 2015 to June 2017

• The Post-Block Advisory Committee consists of faculty, staff, and elected medical student representatives. The Committee meets before, during, and after each educational block to review student feedback, make changes, and discuss issues with block content and delivery.

• As an elected medical student representative, I was responsible for reviewing student survey feedback and serving as a liaison between students and the faculty.

EMPLOYMENT GRADUATE INTERDISCIPLINARY PROGRAM IN NEUROSCIENCE, UNIVERSITY OF ARIZONA

July 2017 to Present

Title: Graduate Research Associate

OFFICE OF STUDENT DEVELOPMENT, COLLEGE OF MEDICINE – TUCSON

October 2017 to May 2020

Title: Peer Tutor

PATRIOT ELEMENTARY, BAKERSFIELD, CALIFORNIA

August 2014 to May 2015

Title: Special Education Aide

INFANT SIBLING STUDY, UC DAVIS MIND INSTITUTE

August 2011 to November 2013

Title: Student Assistant; Junior Specialist

EDUCATION MD/PHD PROGRAM, UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE – TUCSON

July 2015 to May 2023 (anticipated)

- In progress
- Commitment to Underserved Peoples (CUP) Alumnae Scholarship Award (2017)
- 2019 University of Arizona Galileo Circle Scholar
- 2019 Sleep Research Society Trainee Merit Award
- GPSC ReaP Award Recipient (Feb 2019)
- University of Arizona ARCS Foundation Scholar (2020-2021)
- Society for Behavioral Sleep Medicine Student Dissertation and Thesis Award (2020)

BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES AT THE UNIVERSITY OF CALIFORNIA, DAVIS

September 2008 to June 2012

	 Graduated Summa Cum Laude Major: Biological Sciences with Emphasis in Neurobiology, Physiology and Behavior Regent Scholars Award Recipient (2008-2012) Byrd Honors Scholarship (2008-2011) Chevron REACH Scholarship (2008-2012) Integrated Studies Honors Program (2008-2009) Phi Kappa Phi Honors Society Emerging Scholar (2009) Member of Phi Beta Kappa and Phi Kappa Phi Honors Societies
PUBLICATIONS	Khader WS, Tubbs AS , Haghighi A, Athey AB, Killgore WDS, Hale L, Perlis ML, Gehrels JA, Alfonso-Miller P, Fernandez FX, Grandner MA. Onset insomnia and insufficient sleep duration are associated with suicide ideation in university students and athletes. J Affect Disord. 2020 Sep 1;274:1161-1164. doi: 10.1016/j.jad.2020.05.102. Epub 2020 May 24. PMID: 32663946; PMCID: PMC7384749.
	Tubbs AS , Harrison-Monroe P, Fernandez FX, Perlis ML, Grandner MA. When reason sleeps: attempted suicide during the circadian night. J Clin Sleep Med. 2020 Oct 15;16(10):1809-1810. doi: 10.5664/jcsm.8662. PMID: 32621577.
	Tubbs AS , Fernandez FX, Perlis ML, Hale L, Branas CC, Barrett M, Chakravorty S, Khader W, Grandner MA. Suicidal ideation is associated with nighttime wakefulness in a community sample. Sleep. 2020 Jul 2:zsaa128. doi: 10.1093/sleep/zsaa128. Epub ahead of print. PMID: 32614967.
	Tubbs AS , Perlis ML, Basner M, Chakravorty S, Khader W, Fernandez F, Grandner MA. Relationship of Nocturnal Wakefulness to Suicide Risk Across Months and Methods of Suicide. J Clin Psychiatry. 2020 Feb 25;81(2):19m12964. doi: 10.4088/JCP.19m12964. PMID: 32097547.
	Tubbs AS , Gallagher R, Perlis ML, Hale L, Branas C, Barrett M, Gehrels JA, Alfonso-Miller P, Grandner, MA. Relationship between insomnia and depression in a community sample depends on habitual sleep duration. Sleep Biol. Rhythms. 2020 Feb 06;18(2):143-153. doi: 10.1007/s41105-020- 00255-z
	Tubbs AS , Khader W, Fernandez F, Grandner MA. The common denominators of sleep, obesity, and psychopathology. Curr Opin Psychol.

	2020 Aug;34:84-88. doi: 10.1016/j.copsyc.2019.11.003. Epub 2019 Dec 2. PMID: 31835070.
	Tubbs AS , Grandner MA, Combs D. Refractory Insomnia in an Adolescent with Total Blindness. Yale J Biol Med. 2019 Jun 27;92(2):201-204. PMID: 31249480; PMCID: PMC6585511.
	Tubbs AS , Combs D, Grandner MA, Parthasarathy S. Obstructive sleep apnea in Jacobsen Syndrome. Sleep Vigilance. 2019 Apr 21;3(1):77-79. doi: 10.1007/S41782-019-00060-W
	Tubbs AS , Perlis ML, Grandner MA. Surviving the long night: The potential of sleep health for suicide prevention. Sleep Med Rev. 2019 Apr;44:83-84. doi: 10.1016/j.smrv.2019.01.001. PMID: 30797539; PMCID: PMC6530547.
	Murzl CA, Durns TA, Mowrey LT, Tubbs AS , Boeve SA. A Medical Student-Run Child and Adolescent Psychiatry Clinic: One Institution's Experience. Acad Psychiatry. 2017 Oct;41(5):582-586. doi: 10.1007/s40596-017-0753-x. Epub 2017 Jul 13. PMID: 28707231.
BOOK CHAPTERS	TUBBS, A.S. , DOLLISH, H.K., FERNANDEZ, F., GRANDNER, M.A. <i>THE BASICS OF SLEEP PHYSIOLOGY AND BEHAVIOR</i> . SLEEP AND HEALTH, 1ST ED., ELSEVIER ACADEMIC PRESS, 2019, PP. 28–35.
	TUBBS, A.S., GRANDNER, M.A. <i>SLEEP AND HEALTH</i> . INTEGRATIVE SLEEP MEDICINE, 1ST ED., OXFORD UNIVERSITY PRESS (IN PRESS).
	TUBBS, A.S. <i>CBT-I FOR PATIENTS WITH SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS</i> . COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA, 1ST ED., ELSEVIER ACADEMIC PRESS (IN PRESS).