

2015 Research Annual Report

Developmental and Behavioral Pediatrics

RESEARCH AND TRAINING DETAILS



Click to view members

Faculty	18
Joint Appointment Faculty	1
Support Personnel	73
Direct Annual Grant Support	\$1,906,436
Peer Reviewed Publications	14
CLINICAL ACTIVITIES AND TRAINING	45
Clinical Staff	45
Staff Physicians	2
Staff Psychiatrists	14
Clinical Fellows	5
Clinical Students	
	114

Research Highlights

Neurobehavioral Effects of Abrupt Methylphenidate Discontinuation

In a study funded by the National Institute of Mental Health (NIMH), Tanya Froehlich, MD, MS, and colleagues are evaluating changes in child behavior, academic performance and neuropsychological functioning when children with ADHD start and stop taking methylphenidate. Methylphenidate (MPH) is the most commonly prescribed psychoactive medication in children, and ADHD is the most prevalent neurobehavioral disorder. An abundance of studies attest to the efficacy of methylphenidate for attenuating inattentive, hyperactive, and impulsive symptoms in children with ADHD. Despite its efficacy, most children with ADHD who are prescribed methylphenidate have poor continuity of treatment for a variety of reasons, including forgetting to administer the medication and delays obtaining refills. In addition, it is an accepted clinical practice for physicians to omit methylphenidate for periods of time, such as during the summer or on weekends (i.e., drug holidays). However, data collected by Dr. Froehlich and colleagues suggest there may be adverse neurobehavioral consequences of abrupt methylphenidate discontinuation. To further study this issue, the study team are conducting a randomized, double–blind, placebo-controlled trial to delineate the neurobehavioral effects of methylphenidate treatment as well as sudden termination. Study findings have the potential to impact commonly-employed stimulant prescribing practices and to spur the development of evidence-based clinical protocols for MPH discontinuation.

Significant Publications

Woodman AC, Mailick MR, Anderson KA, **Esbensen AJ**. Residential transitions among adults with intellectual disability across 20 years. *Am J Intellect Dev Disabil*. 2014 Nov;119(6):496-515.

We examined the lives of 75 adults with Down syndrome over 20 years, to determine predictors and outcomes of residential transitions. After a 20-year period, half of the adults with Down syndrome in family settings lived with their adult siblings, highlighting the increasingly important role siblings play in caring for adults with intellectual disability later in life. Further, those who moved into independent settings did not show earlier advantages in self-care skills over adults who lived with relatives or in nursing home/hospital settings. These findings suggest that semi-independent or fully independent living settings may be feasible for adults with Down Syndrome with a broad range of self-care skills.

Davidovitch M, Levit-Binnun N, Golan D, **Manning-Courtney P**. Late Diagnosis of Autism Spectrum Disorder After Initial Negative Assessment by a Multidisciplinary Team. *J Dev Behav Pediatr*. 2015 May;36(4):227-34.

As prevalence of Autism Spectrum Disorders continues to rise, an improved understanding of how children are arriving at a diagnosis of ASD is critical. This paper addresses an all too common occurrence, that of older children being diagnosed with ASD, after an initial, comprehensive evaluation did not identify ASD. The authors also review potential reasons for a later diagnosis of ASD in children previously not diagnosed with ASD.

Wagner-Schuman M, Richardson JR, Auinger P, Braun JM, Lanphear BP, Epstein JN, Yolton K, **Froehlich TE**. Association of Pyrethroid Pesticide Exposure with Attention-Deficit/Hyperactivity Disorder in a Nationally Representative Sample of U.S. Children. *Environ Health*. 2015 May 28;14:44.

This nationally representative study found an association between pyrethroid pesticide exposure and ADHD, particularly in terms of hyperactivity and impulsivity rather than inattentiveness, and in boys rather than in girls. Boys with detectable urinary 3-PBA, a biomarker of exposure to pyrethroids, were three times as likely to have ADHD compared with those without detectable 3-PBA. Hyperactivity and impulsivity symptoms increased by 50 percent for every 10-fold increase in 3-PBA levels in boys. Biomarkers of pyrethroid exposure were not associated with increased odds of ADHD diagnosis or symptoms in girls.

Division Publications

- Becker SP, Ciesielski HA, Rood JE, Froehlich TE, Garner AA, Tamm L, Epstein JN. Uncovering a clinical portrait of sluggish cognitive tempo within an evaluation for attention-deficit/hyperactivity disorder: A case study. Clin Child Psychol Psychiatry. 2014;
- Bowker JC, Adams RE, Fredstrom BK, Gilman R. Experiences of Being Ignored by Peers During Late
 Adolescence: Linkages to Psychological Maladjustment. Merrill-Palmer Quarterly-Journal of Developmental
 Psychology. 2014; 60:328-354.
- 3. Braun JM, Froehlich T, Kalkbrenner A, Pfeiffer CM, Fazili Z, Yolton K, Lanphear BP. Brief report: are autistic-behaviors in children related to prenatal vitamin use and maternal whole blood folate concentrations?. *J Autism Dev Disord*. 2014; 44:2602-7.
- 4. Brinkman WB, Epstein JN, Auinger P, Tamm L, Froehlich TE. Association of attention-deficit/hyperactivity disorder and conduct disorder with early tobacco and alcohol use. *Drug Alcohol Depend*. 2015; 147:183-9.
- 5. Davidovitch M, Levit-Binnun N, Golan D, Manning-Courtney P. Late diagnosis of autism spectrum disorder after initial negative assessment by a multidisciplinary team. *J Dev Behav Pediatr*. 2015; 36:227-34.
- 6. Duncan AW, Bishop SL. Understanding the gap between cognitive abilities and daily living skills in adolescents with autism spectrum disorders with average intelligence. *Autism*. 2015; 19:64-72.
- 7. Sutter C, Nishina A, Adams RE. How you look versus how you feel: Associations between BMI z-score, body dissatisfaction, peer victimization, and self-worth for African American and white adolescents. *J Adolesc*. 2015; 43:20-28.
- 8. Szarkowski A, Mood D, Shield A, Wiley S, Yoshinaga-Itano C. A summary of current understanding regarding children with autism spectrum disorder who are deaf or hard of hearing. Semin Speech Lang. 2014; 35:241-59.
- 9. Trairatbvorakul P, Wiley S. **Medical Assessment**. In: TS Bradham, KT Houston, eds. *Assessing Listening and Spoken Language in Children with Hearing Loss*. San Diego, CA: Plural Publishing; 2014:45-60.
- 10. Wagner-Schuman M, Richardson JR, Auinger P, Braun JM, Lanphear BP, Epstein JN, Yolton K, Froehlich TE. Association of pyrethroid pesticide exposure with attention-deficit/hyperactivity disorder in a nationally representative sample of U.S. children. *Environ Health*. 2015; 14:44.
- 11. Wiley S, Innis H. Supporting families of children who are deaf or hard of hearing with an autism spectrum disorder. Semin Speech Lang. 2014; 35:260-5.
- 12. Wiley S, St. John R, Lindow-Davies C. **Children Who are Deaf/Hard of Hearing PLUS**. In: L Schmeltz, ed. *The NCHAM eBook: A Resource for Early Hearing and Detection Intervention (EHDI)*. Logan, UT: National Center for Hearing Assessment and Management; 2015:9.1-9.6.
- 13. Wink LK, O'Melia AM, Shaffer RC, Pedapati E, Friedmann K, Schaefer T, Erickson CA. Intranasal ketamine treatment in an adult with autism spectrum disorder. *J Clin Psychiatry*. 2014; 75:835-6.
- 14. Woodman AC, Mailick MR, Anderson KA, Esbensen AJ. Residential transitions among adults with intellectual disability across 20 years. *Am J Intellect Dev Disabil*. 2014; 119:496-515.

Faculty, Staff, and Trainees

Faculty Members

Patricia Manning-Courtney, MD, Professor

Leadership Co-Division Director; Medical Director, The Kelly O' Leary Center for Autism Spectrum Disorders; Thelma and Jack Rubinstein Chair

Research Interests Autism and quality improvement access services.

Susan Wiley, MD, Professor

Leadership Co-Division Director; Sonya Oppenheimer Chair

Research Interests Children with dual sensory impairments; children who are deaf/hard of hearing with an additional disability; functional communication in young children who are deaf/hard of hearing.

Sonya Oppenheimer, MD, Professor Emerita

Research Interests Spina bifida; high-risk infants; early intervention; Down syndrome.

Ryan Adams, PhD, Assistant Professor

Research Interests Adolescent relationships (i.e. friendships; mother-child, romantic relationships); peer groups; peer victimization; peer experiences of obese adolescents and adolescents w/autism spectrum disorder.

Julia Anixt, MD, Assistant Professor

Research Interests ADHD; the diagnosis and management of behavioral and mental health issues in primary care settings; access to care for underserved populations; shared decision-making for medication decisions.

Amie Duncan, PhD, Assistant Professor

Research Interests Identifying factors that may promote or impede an optimal outcome in adulthood for individuals with ASD; interventions to increase daily living skills and overall independence in adolescents with ASD.

Jennifer Ehrhardt, MD, Assistant Professor

Research Interests Children in foster care who are at risk for developmental delay; timely access to intervention for young children with delays.

Anna Esbensen, PhD, Assistant Professor

Research Interests Lifespan development and health care of individuals with Down syndrome, with a specific focus on behavioral outcomes; mental health of individuals with intellectual disability; Down syndrome research registry collaborating across Ohio.

Tanya Froehlich, MD, Associate Professor

Leadership Associate Director, Fellowship

Research Interests ADHD; health care disparities; genetic and phenotypic predictors of ADHD medication response; contributions of environmental exposures to etiology of ADHD.

Kimberly Kroeger-Goeppinger, PsyD, Assistant Professor

Research Interests Autism interventions; including early intensive behavioral intervention; group interventions; social skills training.

Lisa Kuan, MD, Assistant Professor

Research Interests Academic readiness in young children with cochlear implants; stability of autism spectrum disorder from very early childhood.

Karen Mason, MD, Assistant Professor

Leadership Director, Fellowship; Director, Residency

Research Interests Training residents in developmental and behavioral conditions.

Donna Murray, PhD, Adjunct

Research Interests Face/name recognition in children with ASD; joint attention and language in children with ASD.

Ilka Riddle, PhD, Assistant Professor

Leadership Director, University Center for Excellence in Developmental Disabilities (UCEDD)

Research Interests Health disparities and health equity for individuals with disabilities; accessibility and inclusiveness of medical; health care and physical activity environments; health care transition of youth with special health care needs.

Rebecca Shaffer, PsyD, Assistant Professor

Research Interests Eye tracking; autism spectrum disorders; fragile X; Angelman syndrome; parent training; social skills training; applied behavioral analysis.

Jennifer Smith, PsyD, BCBA-D, Assistant Professor

Leadership Director, Leadership Education in Neurodevelopmental and related Disabilities (LEND)

Research Interests Siblings of children with autism spectrum disorders; social play skills; organizational behavior management (staff training and performance feedback).

Pam Williams-Arya, MD, Assistant Professor

Research Interests The impact of sleep on behavior in teens.

Stephanie Weber, PsyD, Assistant Professor

Leadership Training Director, Leadership Education in Neurodevelopmental and related Disabilities (LEND)

Research Interests Applied behavioral analysis and behavior treatment.

Joint Appointment Faculty Members

Jason Woodward, MD, MS, Assistant Professor (Adolescent Medicine)

Research Interests Transition from pediatric to adult health care for youth with special health care needs.

Clinical Staff Members

- Robin Adams, PhD
- Jennifer Bekins, MA,CCC-SLP
- Nicole Bing, PsyD, DDBP Lead Psychologist
- Deborah Boyd, MD
- Lindsey Bucher, MA,CCC-SLP
- Jennifer Budde, CCC-SLP
- Meredith Burt, MA, CCC-SLP
- Jenny Burton, MA, CCC-SLP
- Kristn Currans, PsyD, TKOC Clinical and Psychologist Lead
- Patricia Eiler-Sims, PsyD
- Betty Fink, MEd
- Melissa Foti-Hoff, PsyD
- Colleen Furey, PsyD
- Carol Grasha, MA, CCC-SLP
- Sarah Greenwell, PsyD

- · Sandra Grether, PhD, CCC-SLP, Coordinator, Speech Pathology
- Andrea Hansen, MA, CCC-SLP
- Amy Hersh, MA, CCC-SLP
- Julie Hibner, MA, CCC-SLP
- Heather Johnson, PsyD
- Bridget Kent, MA, CCC-SLP
- Rebecca Kemer, MA, CCC-SLP
- Rose McAuley, MA,CCC-SLP
- Teri Messerschmidt, MA, CCC-SLP
- Stacey Morrison, PsyD
- Rebekah Ridgeway, PsyD, Psychology Training Lead
- Kimberly Rotundo, MEd
- Karen Sheridan, PhD
- Kristen Smith, MA, CCC-SLP
- Rena Sorensen, PhD
- Laura Srivorakiat, PsyD
- Meghan Stahlhut, MA, CCC-SLP
- Christina Stover, MA, CCC-SLP
- Jennifer Weiner, MA,CCC-SLP
- Meredith Will, PhD

Grants, Contracts, and Industry Agreements

Grant and Contract Awards

Annual Direct

Adams, R

Peer Victimization of Adolescents with ASD: Filling the Knowledge Gaps to Create Anti-Bulllying Interventions

Health Resources and Services Administration (University of California, San Francisco)

11/01/2014-08/31/2015

\$21,532

Froehlich, T

Partnerships that Promote Integrated, Multidisciplinary Training Models and Increase Healthcare Access for the Ohio Medicaid Population

	5/9/2014-6/30/2015	\$48,545
Neurobehavioral Effects of Abru	ot Methylphenidate Discontinuation	
National Institutes of Health		
R01 MH105425	12/1/2014-11/30/2019	\$453,959
Manning, P		
Autism Treatment Network		
Autism Speaks Grant Administration	n	
	9/1/2014-8/31/2017	\$127,272
Autism Intervention Research Ne	etwork on Physical Health	
Health Resources & Services Adm	inistration (Massachusetts General Hospital)	
UA3 MC11054	9/1/2011-8/31/2015	\$30,585
Riddle, I		
University of Cincinnati Universit	y Center for Excellence in Developmental Disabilities	
Administration on Development Di	sabilities (University of Cincinnati)	
	7/1/2012-6/30/2017	\$486,545
Improving the Health of People w	ith Disabilities through State Based Public Health Progra	ms
Centers for Disease Control and P	revention (Ohio State University)	
U59 DD0000931	7/1/2012-6/30/2015	\$37,301
Ohio Family to Family Health Info	rmation Centers	
Health Resources & Services Adm	inistration	
H84 MC28443	6/1/2015-5/31/2018	\$88,611
University Center for Excellence	in Developmental Disabilities	
Ohio Department of Disabilities Co	uncil	
	7/1/2014-12/31/2014	\$5,639
Smith, J		

Leadership Education in Neurodevelopmental and Other Related Disabilities (LEND) Training Program

Health Resources & Services Administration (University of Cincinnati)

\$1,906,436

Act Early Ambassadors: State, Ter	ritory and Organization	
Association of University Centers on	Disabilities	
	6/1/2014-5/31/2016	\$4,000
Building Community Capacity in Da	aycare/Preschool Settings for Young Children with Au	tism
Autism Speaks Grant Administration		
	12/1/2014-11/30/2015	\$12,727
	Current Year Direct	\$1,906,430

Total

More Autistic Teens Need Early Intervention to Learn the Life Skills Needed for Adulthood



Amie Duncan, PhD

RESEARCH AND TRAINING DETAILS

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Duncan AW, Bishop SL. Understanding the gap between cognitive abilities and daily living skills in adolescents with autism spectrum disorders with average intelligence. *Autism.* 2015;19(1):64-72.

PUBLISHED DEC. 15, 2014 *Autism*

As more children with autism spectrum disorder (ASD) make the transition to adulthood, researchers in the Division of Developmental and Behavior Pediatrics are finding that many need early intervention strategies to facilitate a successful transition.

Researchers Amie Duncan, PhD, and Somer Bishop, PhD, studied the daily living skills (DLS) of 417 autistic teens ages 10-17 with average intelligence (IQ of 85 or higher). Daily living skills include activities such as taking a shower, getting dressed, cooking, doing laundry, managing finances, and navigating the community. The researchers were surprised to find that more than half of these high-functioning autistic teens exhibited DLS abilities that were "significantly below" expectations based on their intellectual abilities.

"There is clearly a need to address the substantial gap between cognitive ability and actual performance in activities of daily living," says Duncan, whose study was published Dec. 15, 2014, in *Autism*. "Addressing these skills prior to the transition to adulthood is crucial if we expect young adults to have the necessary skills to live independently."

Interestingly, being older and having more social-communication impairments accounted for only 10 percent of the DLS deficit — a finding that raises hope that adolescents with high functioning ASD have the potential to acquire age-appropriate life skills regardless of the severity of their autism symptoms.

Duncan and Bishop theorize that other factors are involved in autistic teens' abilities to acquire daily living skills; factors that include executive functioning or language capabilities, the number of siblings in the family, the emotional well-being of caregivers, socioeconomic status, race, availability of community and school support services, and involvement in extracurricular activities.

Interventions that support the development of critical daily living skills may increase the likelihood that individuals with ASD can achieve positive outcomes in postsecondary education, employment, and independent living.

"There is clearly a need to address the substantial gap between cognitive ability and actual performance in activities of daily living."

DAILY LIVING SKILLS

