

ANNUAL REPORT 2018

PREVENTION SCIENCE INSTITUTE



UNIVERSITY OF
OREGON

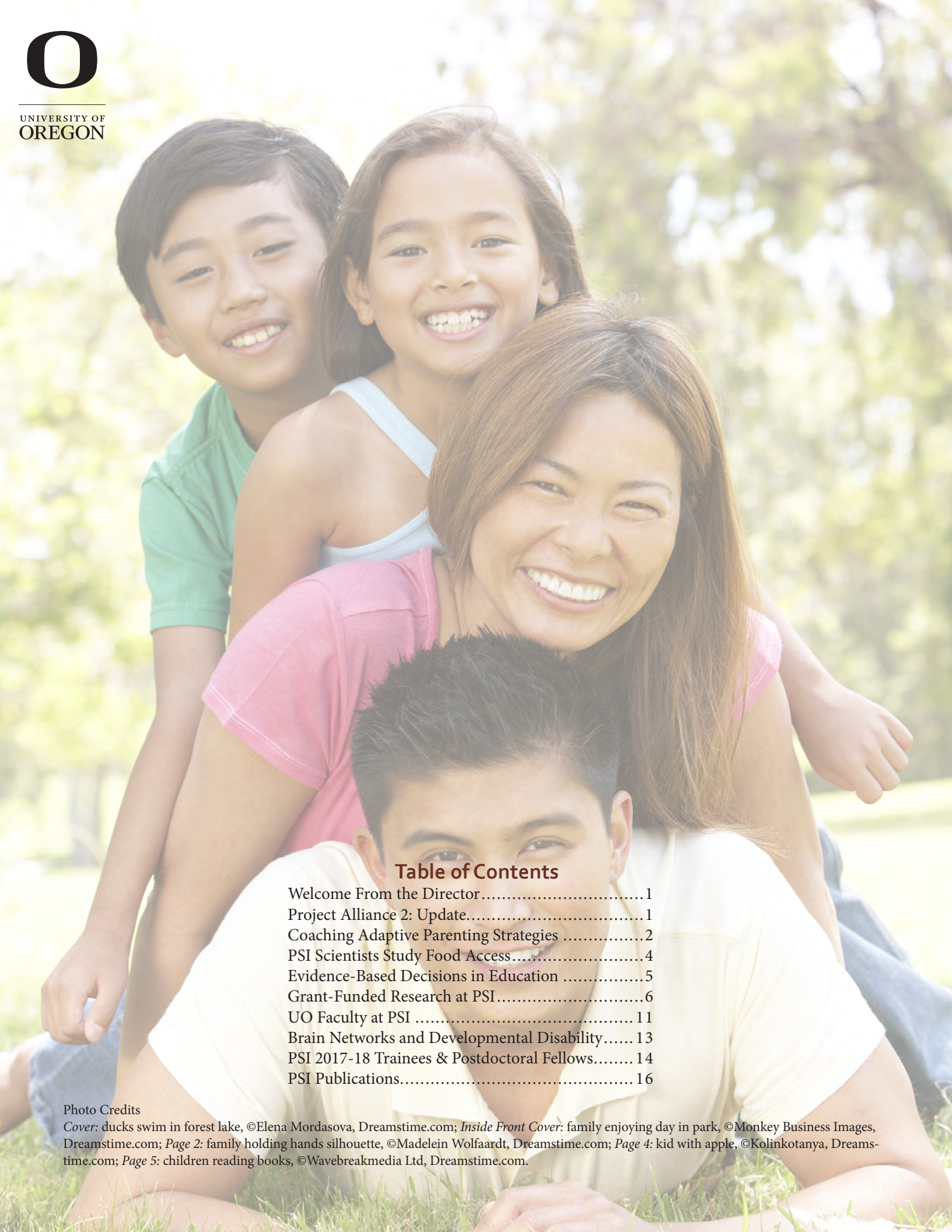


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Welcome to Our Annual Report for Fiscal Year 2018

The Prevention Science Institute is a multidisciplinary research institute focused on improving the lives of children, families, and adults through science and discovery. As a collective faculty, we conduct research to understand prevention from multiple perspectives, including basic research that identifies intervention targets, neuroscience research that identifies interactions between the brain and behavior, effective intervention programs, and efficacious ways to disseminate these programs into community and school settings.

This annual report highlights some of our ongoing research projects and training activities. Our commitment to graduate training, education, and science is integrated into our organizational structure and research model. New faculty hires during the past few years have expanded our research focus in health promotion, translational neuroscience, and online intervention development and dissemination.

The story featured below about longitudinal outcomes associated with Project Alliance 2 honors our history of collaborations with Dr. Tom Dishion, prevention scientist, research institute director, and long-time faculty member at the University of Oregon, who passed away in summer 2018. His contributions to the field of prevention are present in all our work, and his legacy will continue in our science and innovation in the field of prevention for many years to come.



Director, PSI

Project Alliance 2: Understanding Problem Behavior and Substance Use From Middle School Through the Young Adult Years

Project Alliance 2 began in 2005 as a randomized trial to evaluate the efficacy of the Family Check-Up (FCU) intervention in middle school youth. As a follow-up and replication to Project Alliance 1 (Dishion and colleagues), PAL 2 was intended to move the development of the FCU into a more sustainable, adapted intervention for schools that was sensitive to the needs of diverse families and that could be integrated into schools with few resources. Similar methods of data collection across the two projects resulted in a data set that could be compared between different cohorts of adolescents (more than 10 years apart).

Results from PAL 2 suggest that the FCU is associated with improvements in a range of outcomes, including problem behavior, substance use, and depression. Many of these effects were mediated by changes in self-regulation, that is, children's ability to manage and control their behavioral responses to the environment. Recent findings linked early delivery of the FCU to reductions in a range of risk behaviors during the young adult years, including high-risk sexual behavior and substance use, mediated by changes in self-regulation that occur as a function of the intervention. A version of the FCU delivered during the young adult years has been associated with further changes in risk behavior at posttest.

The project has recently ended after 12 years of data collection and intervention. We are grateful to our funders (NIDA and NICHD) and to Dr. Tom Dishion for his inspiration and motivation to study factors that improve the lives of children and families across the lifespan.

Study tests Parent–Child Interaction Therapy program Coaching Adaptive Parenting Strategies

Child abuse and neglect are serious public health problems in the United States, affecting nearly 1 million children each year. Defined in terms of harsh physical punishment, abuse, and neglect, child maltreatment results in substantial economic burdens for the public and serious negative developmental outcomes in children, including anxiety, trauma, and depressive disorders, early-onset behavioral problems, and antisocial behavior that is particularly resistant to intervention. Children who have been exposed to maltreatment are at greater risk in adulthood for serious mental health disorders and are more likely to be involved in domestic violence and to maltreat their own children.

CAPS study.

Research shows that parents are involved in more than 80% of cases involving child physical abuse and neglect, and rates of recidivism (i.e., re-abuse) are high. Yet, few parenting interventions have been shown to be effective in reducing child abuse and neglect after it has already begun to occur in families. One such effective program, Parent–Child Interaction Therapy (PCIT), is the focal point of an ongoing study, Coaching Adaptive Parenting Strategies (CAPS), led by PSI scientist Dr. Elizabeth Skowron. A professor in counseling psychology and human services in the University of Oregon’s College of Education, Skowron,

with her colleagues Drs. Dave DeGarmo and Beth Stormshak at PSI and Dr. Phil Fisher at the Center for Translational Neuroscience, are conducting a five-year, \$3.5 million National Institute on Drug Abuse–funded clinical trial to gain a better understanding of how and why PCIT works so well to prevent new episodes of child abuse and neglect, and to learn whether PCIT works so well because it improves biological and behavioral indicators of self-regulation in parents and children.

Originally designed to improve disruptive behavior problems in children, PCIT is an evidence-based parenting program that also helps

empower child welfare-involved parents make changes that lead to more nurturing, positive, and secure relationships with their children. In so doing it improves parents’ confidence, competence, and enjoyment in parenting, effectively reducing families’ vulnerability to coercive family processes.



It also has been shown to be effective with diverse populations. In PCIT sessions, parents wear a tiny earpiece while they play together with their 3- to 7-year-old children, and a PCIT therapist “coaches” the parent via a headset from the other side of a one-way mirror, providing positive feedback, support, and guidance while a parent practices new skills.

Skill building. Early PCIT sessions support

parents' use of positive parenting behaviors and offer tips to avoid minor misbehavior. In later PCIT sessions, therapists guide parents as they practice effective, nonviolent, and behavior-management skills with their child. Previous outcome research has shown that PCIT improves children's behavior while parents report feeling more confident and less distress at program completion, and program satisfaction is high. Cost-benefit analyses conducted by the Washington State Institute for Public Policy show an excellent return on investment for PCIT with child welfare-involved families: for every dollar invested, there is a \$5.93 return.

Dr. Skowron's earlier research has shown that abusive parents often experience high levels of physiological strain while parenting, causing increased stress and an overreliance on negative, aversive parenting strategies. She theorizes that PCIT's unique, live-coaching approach helps keep parents calm while building regulatory strength that supports better skill acquisition and reduces use of aversive strategies.

"In our experience working with child welfare-involved families, we find that the vast majority of parents struggling with child abuse care deeply about their children and want things to improve," Dr. Skowron said. "But they feel at a loss about what to/how to change. Many themselves have often experienced adversity as children and are trying to cope with countless other stressors. PCIT produces real and lasting changes in parents' warmth and effective discipline practices, leading to lower future risk for child abuse in families. Our work in the CAPS study will help us better understand whether and how PCIT supports change in underlying biomarkers of parent and child self-regulation on the way to achieving its positive outcomes."

Enrollment. The CAPS study has enrolled more than 150 Lane County, Oregon, families and will enroll another 50+ families in the coming (2018–2019) year. One child age 3 to

7 years is selected with one or both parents for study participation. During the course of a year, study families complete two assessment interviews during which research staff monitor heart rate (ECG), brain activity (EEG), and inflammation (blood spots) in both parents and their children, once at study entry and again six to nine months later. One-half of families are then randomly invited to participate in PCIT sessions, while all other families continue receiving services as usual in the community. PCIT sessions are provided at no cost to families, and transportation costs to and from sessions are reimbursed. More than 60 eligible Lane County families have received PCIT services through the CAPS study to date, and approximately 40 new families will be invited to participate in PCIT through June 2019. Dr. Skowron is certified to deliver PCIT through PCIT International, and she maintains a small caseload of clients on the study in addition to serving as the study's principal investigator.

Experiential training. The CAPS study also provides experiential training in clinical translational research to a variety of students at the University of Oregon. Graduate students and undergraduate students in psychology, family and human services, human physiology, and prevention science are gaining research experience conducting family assessments, helping deliver the intervention, and coding and processing data. Graduate students serve as PCIT therapists on the study, with clinical supervision by Dr. Skowron and live-remote supervision from collaborating master therapists at the University of Oklahoma's School of Medicine. Dr. Skowron and the CAPS team also provide mentorship to high school and undergraduate students from across the country for eight-week research internships on the CAPS study that are designed to provide traditionally underrepresented students with experiential research training to prepare for successful entry into graduate school.

Food-buying club in rural Oregon

PSI Scientists Study Food Access

The prevalence of obesity and obesity-related chronic health conditions, such as type 2 diabetes, hypertension, and heart disease, is greater among adults from rural populations than from urban populations. Yet, rural communities make up only 19.3% of the nationwide population. In Oregon, there are more than 400 rural communities and fewer than 100 that are considered to be urban.

These health inequities may be tied to particular challenges faced by rural communities, such as limited access to preventive care and to grocery stores within a 10-mile radius that sell affordable and quality, healthy food items. These limitations contribute to poorer diet quality, limited exposure to a variety of fruits and vegetables, and higher rates of chronic health conditions. Intervention efforts to increase access to healthy foods and reduce the prevalence of chronic health conditions have been scarce in rural areas.

In 2017, Dr. Tasia Smith (PI) and Drs. Nichole Kelly, Elizabeth Budd, and Jennifer Schwartz (Co-Is) were awarded the University of Oregon's Office of Research and Innovation's Incubating Interdisciplinary Initiatives Award (I-3) to evaluate the feasibility and social acceptability of a novel food access program implemented in

a rural community, the Oakridge Buying Club (OBC). OBC is a partnership between the community of Oakridge, Oregon; Whole Foods Market; and BushelBox, a Eugene, Oregon, startup company. Residents are able to purchase fresh fruits and vegetables at a near-wholesale rate from Whole Foods Market. After they place their orders online through BushelBox's purchasing software, one community member makes the 90-mile round trip to Whole Foods Market in Eugene to pick up all orders. Residents are then able to access their purchased items at a designated location in Oakridge.

The rural town of Oakridge, with approximately 3,000 residents, is an ideal location to examine the potential usefulness and effectiveness of an innovative food access program. After having experienced a major economic decline in the early 1990s, this former timber town has worked hard to revive, yet many individuals are still unemployed or underemployed, and many households are considered low income. Oakridge has one locally owned grocery store, several convenience stores, and a Dollar General, all of which offer a limited quantity of fresh and affordable fruits and vegetables.

The OBC I-3 study uses a multilevel, mixed-method design to assess community-level and individual-level factors related



to individuals' experience with the OBC and to their eating behaviors. Data are obtained through survey data collection, focus groups, an environmental audit, and a program assessment. By summer 2018, nearly 100 participants had completed the survey data collection, halfway to the study goal. Efforts are also underway to recruit participants for the focus groups. The community of Oakridge has welcomed the research team and embraced the study, and many community members have shared their strong desire to have increased access to healthy food and to make healthier choices.

The long-term goal of the Oakridge study is to use the data collected to inform the development of a pilot multilevel, community-partnered health promotion intervention in another rural Oregon community. Ultimately, the development of health-promotion programming is crucial to the prevention of chronic disease and early mortality among rural populations throughout the country.

Applied Research Methods and Statistics Lab

Advancing Evidence-Based Decisions in Education

Where can educators find results from high-quality research evidence to answer the question, “What works in education?” In 2002, the U.S. Department of Education’s Institute of Education Sciences established the What Works Clearinghouse (WWC) to serve that purpose. For more than a decade, the WWC has been a central and trusted source of information about what works in education, providing reviews of research on the effectiveness of educational programs, practices, policies, and products. The WWC offers an online repository where teachers, administrators, and policymakers can find the information they need to make evidence-based decisions. The WWC reviews evidence in a broad array of educational topic areas, including interventions targeting children and youth with disabilities, early childhood, English language learners, literacy, mathematics, science, student behavior, high school graduation, and postsecondary success. The WWC does not rank or endorse interventions, but instead reviews evidence of effectiveness based on systematic reviews. To date, more than 10,000 education research studies have been reviewed by the WWC.

The Applied Research Methods and Statistics Lab at the PSI, headed by Dr. Emily Tanner-Smith, will now support the WWC in collaboration with the American Institutes for Research. Dr. Tanner-Smith

is an internationally recognized expert in systematic reviewing and meta-analysis methods; in 2018, she received the Nan Tobler Award from the Society for Prevention Research in honor of her meta-analytic contributions to the field of

prevention science. She has served as a statistical and methodological editor for the Campbell and Cochrane Collaborations and currently serves as a features editor for *Research Synthesis Methods*.

Dr. Tanner-Smith’s work with the WWC will involve ensuring that the standards and procedures used for reviewing and appraising scientific evidence stay current with recent methodological and statistical advances. The WWC uses transparent standards and procedures to identify and synthesize evidence from only the highest quality research studies. It relies on hundreds of trained and certified PhD-level reviewers who rate studies according to the WWC standards and then summarize evidence from those studies in products that present findings on “what works.”

The WWC’s current standards for reviewing evidence from studies use between-group designs (i.e., randomized, controlled trials or quasi-experimental designs) and regression discontinuity designs, and pilot standards for reviewing evidence from single-case design studies. Dr. Tanner-Smith’s team will lead the development, refinement, and delivery of training and certification on these WWC standards, to ensure the



reliable identification of the highest quality scientific evidence to be synthesized in WWC products.

Systematic reviews advance evidence-based decision making by providing a rigorous method

for assembling and summarizing the best available research evidence. By providing a trusted evidence repository, the WWC aims to improve student outcomes by identifying educational programs that show the greatest promise of effectiveness.

Grant-Funded Research in FY 2018 at PSI

An Adoption Study of the Development of Early Substance Use: The Joint Roles of Genetic Influences, Prenatal Risk, Rearing Environment, and Pubertal Maturation

Funding period: 2018–2023

PI: Dr. Jenae Neiderhiser, Penn State;
UO Subaward PI: Leslie Leve

Funded by: National Institute on Drug Abuse

Grant number: R01 DA045108

This study examines how risk for substance use is affected by complex interactions between a person's genetics, prenatal experiences, rearing environment, and hormonal changes during adolescence.

Advancing Academic–Research Careers

Funding period: 2017–2019

PI: Dr. Samantha Shune

Funded by: American Speech-Language-Hearing Association

Grant number: 25026

The goal of this project is to investigate the reciprocal relationship between dysphagia (swallowing impairments) and family dynamics in stroke survivors and their spouses.

Behavioral Effects of Teen Exposure to Multiple Risk Behaviors in Media

Funding period: 2014–2017

PI: Dr. Atika Khurana

Funded by: National Institute of Child Health and Human Development

Grant number: R21 HD079615

This project is examining the influence of exposure to multiple risk portrayals in popular movies and TV shows on adolescent health risk behaviors.

Brief Alcohol Screening and Intervention for Community

College Students

Funding period: 2016–2018

PI: Dr. Jessica Cronce

Funded by: National Institute on Alcohol Abuse and Alcoholism

Grant number: R34 AA023047

The Brief Alcohol Screening and Intervention for College Students is being adapted through use of an iterative process of development, prototype models and instructions, focus groups, usability testing, and individual interviews.

Brief Substance Use Interventions in General Healthcare Settings: Understanding Variability in Effects

Funding period: 2017–2019

PI: Dr. Emily Tanner-Smith

Funded by: National Institute on Drug Abuse

Grant number: R01 DA043589

Aims are to conduct an individual participant data meta-analysis to examine variability in the effectiveness of brief substance use interventions delivered in general healthcare settings.

CEEDAR Technical Assistance

Funding period: 2016–2017

MPIs: Dr. Randy Kamphaus, Dr.

Dianna Carrizales-Engelmann

Funded by: Oregon Department of Education

Grant number: ODE2642341

To improve Oregon's professional learning systems, the focus is on equity, culturally responsive practices, and educational outcomes by revising the preparation of general and special education practitioners.

Children's Social and Academic Competence: Integrating Genetically Informed and Prevention Research

Funding period: 2018–2021

PI: Dr. Amanda Griffin

Funded by: National Institute of Child Health and Human Development

Grant number: F32 HD093347

A study of genetic influences on positive parent and peer relationships, social skills, and academic competence and the potential for using genetically informed designs in conjunction with prevention science.

Comparing Web, Group, and Telehealth Formats of a Military Parenting Program

Funding period: 2014–2019

PI: Dr. David DeGarmo

Funded by: US Department of Defense

Grant number: W81XWH-14-1-0143

This study is testing e-technology methods to increase access to a family-based substance use intervention for reintegrated military reserve personnel and their families.

Devaluing Energy-Dense Foods for Cancer Control: Translational Neuroscience

Funding period: 2017–2022

PI: Dr. Elliot Berkman

Funded by: National Cancer Institute

Grant number: R01 CA211224

A precision medicine trial of two scalable interventions to change the subjective and neural valuation of cancer-related foods and to help people at elevated cancer risk eat more healthfully.

The Early Growth and Development Study Pediatric Cohort

Funding period: 2016–2018

PI: Dr. Leslie Leve

Funded by: National Institutes of Health Office of the Director

Grant number: UG3 OD023389

A dual-family adoption design is used to distinguish the role of

environmental exposures from that of heritable influences and identify how each affects children's health outcomes.

eGAS: A Tool to Support Patient-Centered Goal Attainment Scaling for Cognitive Rehabilitation

Funding period: 2017–2019
PI: Dr. McKay Moore Sohlberg
Funded by: National Institute of Child Health and Human Development
Grant number: R03 HD091453

The eGAS innovation is being used to measure cognitive treatment outcomes in those with traumatic brain injury through valid, reliable goal hierarchies linked to specific cognitive interventions.

eHealth Coping Skills Training and Coach Support for Women Whose Partner Has a Drinking Problem

Funding period: 2016–2021
MPIs: Dr. Brian Danaher; Dr. Robert Rychtarik, Univ. Buffalo–SUNY
Funded by: National Institute on Alcohol Abuse and Alcoholism
Grant number: R01 AA024118

This project is developing a web version of StopSpinningMyWheels, a coping skills program for women living with a partner who has an alcohol use disorder.

Estimating Comparative Effectiveness of Alcohol Interventions for Young Adults

Funding period: 2017–2022
PI: Dr. Emily Tanner-Smith
Funded by: National Institute on Alcohol Abuse and Alcoholism
Grant number: R01 AA019511

Aims are to conduct a multivariate meta-analysis to examine the comparative effectiveness of brief

alcohol interventions for adolescents and young adults.

Family-Centered Intervention in Schools to Reduce Social and Behavioral Problems From Early Elementary School to Adolescence

Funding period: 2018–2023
Principal Investigator: Dr. Elizabeth Stormshak
Funded by: Institute of Education Sciences
Grant number: R324A18007

This study is examining the long-term efficacy of the Family Check-Up at school entry to prevent development of social and behavioral problems and testing a booster session during the transition to middle school to adulthood.

Family Check-Up Online: Support for Middle School Families in Rural Oregon

Funding period: 2015–2017
PI: Dr. Elizabeth Stormshak
Funded by: Ford Family Foundation
Grant number: 20150294

The FCU Online for middle school youth and their families uses multimedia and technology, including a user-friendly web program, to support effective family management and behavioral change.

Family and Peer Processes and Gene–Environment Interplay in Early Adolescence: An Adoption Study

Funding period: 2014–2017
PI: Dr. Leslie Leve
Funded by: National Institute of Child Health and Human Development
Grant number: R56 HD042608

The aim is to disentangle

inherited influences from social–environmental influences on youth behavior and competencies during the transition to middle school.

Fathering Through Change: Online Parent Training for Divorced Fathers (FTC)

Funding period: 2014–2017
PI: Dr. David DeGarmo; IRIS Media
MPI: Dr. Neil Caraway
Funded by: National Institute of Child Health and Human Development
Grant number: R44 HD075499

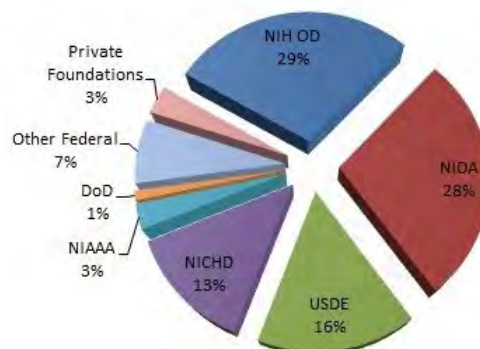
This project is testing effectiveness of the FTC on fathers' parenting skills, coparenting conflict reduction, and cooperation through group-based learning and interactive online instruction.

Functional Connectivity in Developmental Delay: Shared Etiology and Differential Outcomes

Funding period: 2018–2020
PIs: Drs. Laura Lee McIntyre, Fred Sabb
Funded by: National Institute of Mental Health
Grant number: R21 MH114075

This study seeks to identify common and unique brain patterns in children ages 6–10 years with developmental delay and autism spectrum

Total Awards Portfolio: \$56,858,064



disorder and address technical challenges of collecting MRI data from this population.

Girls-Specific Prevention Program for Substance Use and Delinquency

Funding period: 2015–2017

Subaward PI: Dr. Leslie Leve; Univ.

Wash. PI: Dr. Sarah Walker

Funded by: National Institute on Drug Abuse

Grant number: R21 DA037455

At-risk justice-involved girls receive support via cognitive-behavioral and moral reasoning principles, management of internalizing symptoms, relationship-based scenarios, and parent skill building.

Harvard Frontiers of Innovation

Funding period: 2014–2017

PI: Dr. Philip Fisher

Funded by: Subawards from Harvard University

This collaboration of researchers, practitioners, and policymakers is developing prevention and intervention programs to improve child outcomes and build caregiver capabilities.

Initiative to Develop and Test Guidelines for Juvenile Drug Courts

Funding period: 2017–2019

PI: Dr. Emily Tanner-Smith

Funded by: Office of Juvenile Justice and Delinquency Prevention

Grant number: 2014-DC-BX-K001

Aims are to develop, disseminate, and evaluate the effectiveness of new evidence-based guidelines to improve juvenile drug treatment court practices.

KEEP-P: Prevention Intervention for Foster Preschoolers

Funding period: 2013–2018

PI: Dr. Philip Fisher

Funded by: National Institute of Child Health and Human Development

Grant number: R01 HD075716

A group-based intervention for foster preschoolers and their caregivers aims to improve parenting, reduce disrupted placements, and improve child outcomes.

Nashville Longitudinal Study of Youth Safety and Well-Being

Funding period: 2017–2021

PI: Dr. Emily Tanner-Smith

Funded by: National Institute of Justice

Grant number: 2016-CK-BX-K002

Aims are to compile a multilevel longitudinal dataset to examine individual, school, and neighborhood factors that affect the well-being of students attending Metropolitan Nashville Public Schools.

Parenting to Prevent Substance Use in Late Adolescence

Funding period: 2012–2017

PI: Dr. Elizabeth Stormshak

Funded by: National Institute of Child Health and Human Development

Grant number: R01 HD075150

Researchers examined how parent–youth relationships in late adolescence may be protective or may contribute to youth's escalating substance use and abuse.

Postdoctoral Training Program in Prevention Science at the University of Oregon: Preparing Education Researchers to Prevent Social and Behavioral Problems in Schools

Funding period: 2018–2023

PIs: Drs. John Seeley, Beth Stormshak

Funded by: Institute of Education Sciences

Grant number: R324B180001

Trainees gain expertise in prevention science and one of three training

areas: interventions to reduce later risk and promote behavioral and academic success, evidence-based programs in real-world settings, and advanced research methods.

Prevention of Substance Use in At-Risk Students: A Family-Centered Web Program

Funding period: 2015–2020

PIs: Drs. John Seeley, Beth Stormshak

Funded by: National Institute on Drug Abuse

Grant number: R01 DA037628

This study is examining whether a brief, tailored, web-based family-centered intervention for families of middle school youth can reduce behavioral risk, enhance parenting skills, improve family climate, and improve child outcomes.

Psychometric Investigation of Universal Screening for Social-Emotional Development in Preschool Using Parent and Teacher Informants

Funding period: 2015–2019

Subaward PI: Dr. Randy Kamphaus;

Univ. So. Carolina MPIs: Drs.

Christine DeStefano, Fred Greer

Funded by: Institute of Education Sciences

Grant number: R305A150152

This project is evaluating the psychometric properties of a screening tool used to examine associations between children's social-behavioral risk and child social and academic outcomes in kindergarten and first grade.

RULE Project: Read Understand Learn & Excel

Funding period: 2016–2018

PI: Dr. McKay Moore Sohlberg

Funded by: National Science Foundation

Grant number: 1640492

A computerized tool dynamically assesses and supports reading comprehension in postsecondary students with cognitive impairments.

Siblings Reared Apart: A Naturalistic Cross-Fostering

Study of Young Children

Funding period: 2013–2018

PI: Dr. Leslie Leve

Funded by: National Institute on Drug Abuse

Grant number: R01 DA035062

A naturalistic human cross-fostering design is used to examine childhood pathways to development by identifying nuances in the rearing environment associated with specific child risk behaviors and competencies.

SMART Optimization of a Parenting Program for Active-Duty Families

Funding period: 2016–2020

Subaward PI: Dr. David DeGarmo;

Univ. Minn. PI: Dr. Abigail Gewirtz

Funded by: US Department of Defense

Grant number: W81XWH-16-1-0407

This study seeks to provide ways to meet the needs of military families experiencing deployments by testing various programs to strengthen parenting and family resilience.

Social Norms and Skills Training: Motivating Campus Change

Funding period: 2016–2018

Subaward PI: Dr. Jessica Cronce; Univ.

Wash. PI: Dr. Mary Larimer

Funded by: National Institute on

Alcohol Abuse and Alcoholism

Grant number: R56 AA12547

The project is developing prototypes of a web-based personalized feedback intervention and text-message intervention boosters that target high-risk events and testing their usability and feasibility among college students.

Tailored Inhibitory Control Training to Reverse EA-Linked Deficits in Mid-Life

Funding period: 2014–2017

PI: Dr. Elliot Berkman

Funded by: National Institute on Aging

Grant number: R01 AG048840

A neurally informed model of inhibitory control is being used to test the efficacy of an intervention for mid-life individuals with early adversity.

Targeting Neurobiological and Behavioral Mechanisms of Self-Regulation in High-Risk Families

Funding period:

2015–2019

PIs: Drs. Elizabeth Skowron, Phil Fisher

Funded by: National

Institute on Drug Abuse

Grant number: R01

DA036533

This clinical trial is testing the effects of Parent–Child Interaction Therapy for maltreating families and identifying biobehavioral pathways to positive change in parenting practices and child outcomes.

Testing the Efficacy of an Ecological Approach to Family Intervention and Treatment During Early Elementary School to Prevent Problem Behavior and Improve Academic Outcomes

Funding period: 2013–2018

PI: Dr. Elizabeth Stormshak

Funded by: Institute of Education

Sciences

Grant number: R305A140189

Evaluation of the Family Check-Up during transition into elementary school targets family contextual risks

and management skills; self-regulation, academic, and social competence skills; and problem behavior.

Transition to Scalability (Motivational Boost at Scale, Phase I)

Funding period: 2017–2018

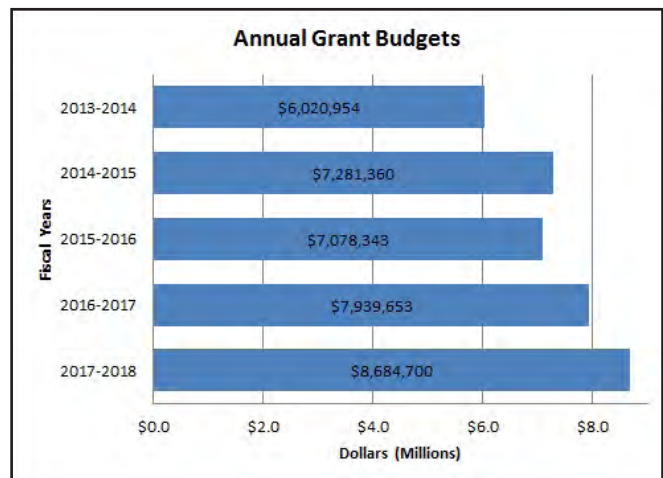
Subaward PI: Dr. Elliot Berkman; Har-

vard Univ. PI: Dr. Jack Shonkoff

Funded by: Bezos Family Foundation-

Grant number: 170410

A brief online and mobile program to increase parents' motivation to engage in parenting classes is being



expanded to additional sites, and technology is being developed to deliver the intervention.

Translational Drug Abuse Prevention Center (TDAP)

Funding period: 2013–2018

Subaward PIs: Drs. Phil Fisher, Leslie

Leve, David DeGarmo; OSLC MPI: Dr.

Patricia Chamberlain

Funded by: National Institute on Drug Abuse

Grant number: P50 DA035763

TDAP seeks to improve outcomes for child welfare system-involved children and families, including those with high early life adversity and risky decision making during

early adolescence and high rates of drug use and HIV-risk behaviors.

Unique Contributions of Parent and Child Self-Regulation, Parenting, and Environmental Stress to School Readiness in Preschoolers

Funding period: 2018–2019

PI: Dr. Nicole Giuliani

Funded by: Society for the Study of School Psychology

Cross-sectional assessment of hot and cold forms of self-regulation in mothers and preschoolers, observed parenting behavior, self-reported parental environmental stressors, and socioemotional and academic school readiness.

Using Online Learning and Coaching to Increase the Competency of Early Childhood Teach-

ers to Impact School Readiness for Children Exposed to Trauma

Funding period: 2015–2019

PIs: Drs. Phil Fisher, Melanie Berry; Ore. State Univ. MPIs: Drs. Shannon Lipscomb, Bridget Hatfield

Funded by: Institute of Education Sciences

Grant number: R305A150107

An online course and coaching program is being developed to help early childhood teachers implement practices to improve academic and social-behavioral outcomes for young children who have experienced trauma.

Utilizing Adoption-Based Research Designs to Examine the Interplay Between Family Relationship Processes and Child Developmental Outcomes

Funding period: 2015–2017

PI: Dr. Leslie Leve; Univ. of Sussex PI:

Dr. Gordon Harold

Grant number: 1640492

A longitudinal U.S. adoption-at-birth sample and a UK sample of children conceived through IVF are used to understand the interplay between family interaction patterns, parent mental health, and child psychopathology.

What Works Clearinghouse Statistics, Website, and Training

Funding period: 2018–2023

PI: Dr. Emily Tanner-Smith

Funded by: Institute of Education Sciences

Grant number: 91990018C0019

Aims are to support the training, certification, and statistical and methodological guidance efforts of the U.S. Department of Education's What Works Clearinghouse.

Understanding Brain Networks in Children With Developmental Disability

PSI scientists Drs. Laura Lee McIntyre and Fred Sabb, recent recipients of an exploratory research grant from the National Institute of Mental Health, will be using functional magnetic resonance imagining (fMRI) to examine functional connectivity in the brains of children with autism and developmental delay. They hope to identify and understand brain differences among children who are typically developing and those with developmental delay. Their team will be looking at brain activity when children are at rest and examine how these resting state networks are associated with clinical and educational outcomes, including performance on a battery of neuropsychological assessments, school services, and education outcomes.



The study sample will be drawn from two cohorts of children previously identified with a developmental delay or autism spectrum disorder (ASD) in early childhood that McIntyre and her team have been following longitudinally for several years. “Leveraging fMRI along with clinical and educational assessments gives us a unique opportunity to better understand the developmental patterns of these children and investigate brain mechanisms associated with differential outcomes in children with autism and other developmental delays,” says McIntyre. Understanding brain networks associated with communication, social skills, and emotion and behavior regulation differences may help tailor early interventions for children with developmental disabilities.

As many as 120 children with autism spectrum disorders and other developmental delays, along with 24 typically developing children, will undergo scanning in UO's Robert and Beverly Lewis Center for Neuroimaging and receive neuropsychological assessments. The team hopes to receive additional funding to expand the collaborations with Oregon Health & Science University scientists studying autism and the genetics of ASD and developmental delays.

UO Faculty at the Prevention Science Institute



Nicholas Allen, PhD, uses a developmental psychopathology approach to understand how family interactions and other aspects of a child's environment influence the child's emotional functioning and affect the development of associated biological systems.



Elliot Berkman, PhD, studies the motivational and cognitive factors underlying health goals. His work's translational neuroscience approach uses neuroscience knowledge to design and improve interventions for health behavior and well-being.



Elizabeth Budd, PhD, MPH, studies early chronic disease prevention among youth. She examines social and physical environments and their influence on physical activity and healthy eating in communities with heightened risk for chronic diseases.



Allison Caruthers, PhD, is interested in adolescent gender and sexual socialization and their relationship to sexual behavior,

sexual risk taking, and emotional well-being in adolescence and adulthood, and possible mechanisms by which intervention services reduce risky sexual behavior.



Krista Chronister, PhD, researches partner violence prevention and community-based intervention, including women survivors' economic and vocational development, community mental health interventions with ethnic minority and immigrant families, and young adults at risk for partner violence and substance use.



Jessica Cronce, PhD, researches how alcohol use and other health-related behaviors overlap and interact to predict risk among young adults and how to prevent or lessen those harms, including use of individual-focused motivational enhancement approaches.



Lauren Cycyk, PhD, studies sociocultural and environmental influences on early bilingual language development and caregiver-centered language interventions that promote com-

munication outcomes of bilingual children from an early age. She focuses on children and families from Spanish-speaking homes.



Brian Danaher, PhD, develops and evaluates self-management programs to encourage health behavior change, especially eHealth interventions delivered using technology. In addition to outcomes, his research has examined information architecture, participant engagement, abandonment, imputing missing data, and implementation/dissemination.



Todd Darlington, PhD, uses meta-analytic methods to study brief interventions targeting drug and alcohol abuse. He also researches genetic and environmental factors that affect risk for mental health disorders, with a focus on suicide behaviors.



Stephanie De Anda, PhD, investigates language acquisition in typically and atypically developing English- and Spanish-speaking infants, toddlers, and preschoolers. As a Latina scholar and speech-language pathologist, she aims

to understand language development in young Latinx children.



Dave DeGarmo, PhD, is a prevention methodologist interested in evaluation of family stress models and

evaluation of interventions and treatments for families at risk for compromised parenting. His active research involves intervention for divorced fathers and for military families.



Philip Fisher, PhD, studies the effects of early adversity on children's neurobiological and psychological development and the brain's plasticity relevant to therapeutic interventions, with an emphasis on impact at scale. He designs scalable programs for improving children's social-emotional development and peer relationships.



Nicole Giuliani, PhD, studies emotion, self-regulation, health behaviors, and family dynamics. She uses methods

such as neuroimaging, ecological momentary assessment, and behavioral coding to understand basic processes and improve interventions using a translational

neuroscience approach.



Randy Kamphaus, PhD, focuses his research on developing measures for assessing and diagnosing child

and adolescent mental health disorders and measures to improve early detection of mental health risk or subsyndromal psychopathology.



Nichole Kelly, PhD, studies eating behaviors and health. She uses experimental paradigms to identify cognitive and

emotional mechanisms for poor eating decisions, develops novel strategies for promoting healthier dietary habits, and considers the role of sociocultural influences.



Atika Khurana, PhD, uses a developmental-ecological approach to understand and prevent unhealthy risk

behaviors in adolescents (e.g., substance abuse, sexual risk-taking), with an emphasis on neuropsychological (e.g., cognitive control, reward sensitivity) and contextual predictors of adolescent risk taking.

Leslie Leve, PhD, focuses her research on interventions to



improve well-being for youth in juvenile justice or foster care, and on adoption studies that examine the interplay between

biological (genetic, hormonal), family, and contextual influences on child development.



Laura Lee McIntyre, PhD, focuses on early identification and treatment of childhood developmental

and behavioral problems and particularly, the systems of care that support children at risk for negative social, emotional, and behavioral outcomes.



Kevin Moore, PhD, focuses on developing and implementing evidence-based and evidence-informed behavioral health treatments for youth

and families. His experience spans educational, community mental health, social welfare, residential, and juvenile justice settings.



Jennifer Pfeifer, PhD, is interested in how social, affective, motivational, and regulatory processes interact

and influence adolescent behavior.

She studies the development of these phenomena at behavioral and neural levels, including their relationships with puberty, mental health, and health-risking behavior.



Fred Sabb, PhD, focuses on elucidating the neurobiology of cognitive control processes and their maturational trajectory and interaction throughout development to identify novel intervention targets using fMRI and behavioral assessment methods.



John Seeley, PhD, focuses his research on emotional and behavioral disorders, behavioral health intervention, research design and program evaluation, and health-related technology. He is especially interested in school-based screening, prevention, and treatment for internalizing psychopathology.



Stephanie Shire, PhD, focuses on partnering with community stakeholders to develop and test intervention practices for young children with autism and other neurodevelop-

mental disorders to help build community capacity to optimize children's development.



Samantha Shune, PhD, researches the effects of aging on swallowing and mealtimes. She is interested in better understanding the shared mealtime and food-related activities as opportunities to therapeutically target improved mortality and quality of life for older adults.



Elizabeth Skowron, PhD, studies the effects of adversity on the development of self-regulation skills in early childhood, how biology and behavior shape parenting, and how interventions reduce risk of child abuse and neglect and produce positive outcomes.



Tasia Smith, PhD, is interested in obesity-related health disparities among marginalized communities. Her specific research examines determinants of health and the interplay of physical and mental health. She also designs, implements, and evaluates community-based health promotion programs.



McKay Moore Sohlberg, PhD, CCC-SLP, conducts research in cognitive rehabilitation following acquired brain injury. She is particularly interested in patient-centered outcome measures and evaluating interventions that mitigate cognitive effects for individuals with brain injury in the postacute phase.



Beth Stormshak, PhD, has expertise in the area of prevention and mental health problems in children and youth. Her research focuses on development of family-centered interventions to reduce problem behavior and promote health and well-being.



Emily Tanner-Smith, PhD, studies the effectiveness of prevention and treatment programs for substance use, delinquency, and other mental health problems. Her research uses meta-analytic methods to advance evidence-informed prevention programming, with emphasis on understanding variability across diverse populations and contexts.

2017–18 Doctoral Students & Postdoctoral Fellows



Anna Cahn, MS, RDN, is a registered dietitian whose goal is to teach future dietitians about nutrition education and prevention science.



Brendan Cullen, BA, is interested in precision medicine approaches to behavioral health and focuses on moderators and mechanisms of behavioral interventions.



Lauren Kahn, PhD, is a recently graduated doctoral student interested in how identity plays a role in behavior change.



Lucia Cardenas, MS, is a student investigator on the Family Check-Up Online: Support for Middle School Families in Rural Oregon, a project targeting at-risk youth.



John Flournoy, MS, studies the impact of social motivations on decision making in adolescence.



Rachel Kovensky, MS, counseling psychology, is interested in trauma, health-risking behaviors, and resilience promotion among adolescent girls and young women.



Camille Cioffi, MS, who is in the prevention science doctoral program, studies the development of healthy regulatory development throughout early childhood.



Sarah Horn, MS, is a doctoral student who is studying the impact of early adversity on immunological mechanisms.



Anna McWhirter, MEd, is a school psychology doctoral student and coding supervisor for PSI who is interested in parenting, religion, and social justice.



Danielle Cosme, MS, is interested in the development of self-regulation and its relationship to health and well-being during adolescence and adulthood.



Kadie Johnson, MA, MS, is an assessor/interventionist for the CAPS project who is interested in therapy with families and researching parenting quality and change.



Jonathan A. Pedroza, MA, is a prevention science doctoral student with interests in acculturation, smartphones,

and sedentary behaviors in Latinx populations.



Carrie Scholtes, M.Ed., works on the Coaching Alternative Parenting Strategies (CAPS) project and is interested

in parenting and self-regulation in child welfare-involved families.



Sylvia Shaykis, MS, a counseling psychology doctoral student, is completing her dissertation: an online adaptation of the "Filming Interactions to Nurture Development" parenting intervention.

peer relationships, and school readiness to translate evidence from genetically informed designs to inform prevention programs.

Not pictured

Ellie Harrington, BA, School Psychology

April Lightcap, Clinical Psychology

Jordan Livingston, School Psychology

Rita Ludwig, MA, MS, School Psychology

Emily Reich, MS – Counseling Psychology



Kyndl Woodlee, BA, is a counseling psychology doctoral student working on the CAPS project who is interested in intimate partner violence prevention and supporting survivors.



Amanda Griffin, PhD, is a postdoctoral fellow investigating heritable influences on parent-child interactions,

peer relationships, and school readiness to translate evidence from genetically informed designs to inform prevention programs.



Hannah Tavalire, PhD, is a postdoctoral scholar in the Leve research group and is working on the Early

Growth and Development research team at PSI (see sidebar).

Cross-Disciplinary Research at PSI

Most of Dr. Hannah Tavalire's past research has been in nonhuman systems, such as the genetics of disease in plants and animals. Now on the Early Growth and Development Study team, Hannah is developing novel analytical approaches for human studies, informed by her experience in advanced genomic, bioinformatic, statistical, and quantitative genetics. Using data from siblings reared apart (because of adoption), Hannah is researching the genetic and environmental basis for mental and physical health traits in children. This work could identify environmental targets for interventions that could affect overall child health. In collaboration with PSI scientists Leve, Budd, and Smith, Hannah is working to determine the roles of genetics and shared environment in child body mass index.

In an interdisciplinary collaboration between PSI and the Institute of Ecology and Evolution, Hannah is working to identify the genetic and environmental drivers of gut microbiome diversity in children. Variation in the gut microbiome has been associated with variation in mental health, obesity, and overall health. Hannah is also using a parallel approach across humans and a fish model organism to characterize the role of physiological stress in shaping gut microbiome diversity and overall child health.

PSI 2017–18 Postdoctoral Fellows

2017–2018 PSI Scientists' Publications (selected from 115)

- Berkman, E. T.** (2018). The neuroscience of goals and behavior change. *Consulting Psychology Journal: Practice and Research*, 70(1), 28–44.
- Budd, E. L., McQueen, A., Eyer, A. A., Haire-Joshu, D., Auslander, W. F., & Brownson, R. C.** (2018). The role of physical activity enjoyment in the pathways from the social and physical environments to physical activity of early adolescent girls. *Preventive Medicine*, 111, 6–13.
- Calderón-Carillo, M., Ricardo-Garcell, J., **Cy-cyk, L. M.**, Jackson-Maldonado, D., Avecilla-Ramírez, G., & Harmony, T. (2018). Los padres como promotores del desarrollo de lenguaje de bebés prematuros: propuesta de intervención temprana. [Parents as promoters of language development in premature babies: A proposal for early intervention]. *Actualidades en Psicología*, 32(124), 51–63.
- Dahl, R. E., **Allen, N. B.**, Wilbrecht, L., & Suleiman, A. B. (2018). Importance of investing in adolescence from a developmental science perspective. *Nature*, 554(7693), 441–450.
- DeGarmo, D. S.**, Jones, J., & Rains, L. A. (2018). A pilot study evaluation of Marte Meo for divorced fathers. *Journal of Family Therapy*. Advance online.
- Elliot, D. L., **Leve, L. D.**, & Racer, K. H. (2018). Incorporating positive youth development into the therapeutic model for incarcerated young women. *Frontiers in Women's Health*, 3, 1–7.
- Giuliani, N. R.**, Merchant, J. S., Cosme, D., & **Berkman, E. T.** (2018). Neural predictors of eating behavior and dietary change. *Annals of the New York Academy of Science*. Advance online.
- Giuliano, R. J., Roos, L. E., Farrar, J. D., & **Skowron, E. A.** (2018). Cumulative risk exposure moderates the association between parasympathetic reactivity and inhibitory control in preschool-age children. *Developmental Psychobiology*, 60(3), 324–332.
- Kelly, N. R.**, **Smith, T. M.**, Hall, G. C. N., Guidinger, C., Williamson, G., **Budd, E. L.**, & **Giuliani, N. R.** (2017). Perceptions of general and postpresidential election discrimination are associated with loss of control eating among racially/ethnically diverse young men. *International Journal of Eating Disorders*, 51(1), 28–38.
- Kelly, N. R.**, Cotter, E., & Guidinger, C. (2018). Men who engage in both subjective and objective binge eating have the highest psychological and medical comorbidities. *Eating Behavior*, 30, 115–119.
- Khurana, A.**, Romer, D., Betancourt, L. M., & Hurt, H. (2018). Modeling trajectories of sensation seeking and impulsivity dimensions from early to late adolescence: Universal trends or distinct sub-groups? *Journal of Youth and Adolescence*, 47(9), 1992–2005.
- Kucheria, P., **Sohlberg, M. M.**, Yoon, H., Fickas, S., Prideaux, J. (in press). Read, Understand, Learn & Excel (RULE): Development and feasibility of a reading comprehension measure for postsecondary learners. *American Journal of Speech Language Pathology*.
- Leve, L. D.**, Neiderhiser, J. M., Harold, G. T., Natsuaki, M. N., Bohannon, B. J. M., & Cresko, W. A. (2018). Naturalistic experimental designs as tools for understanding the role of genes and the environment in prevention research. *Prevention Science*, 19(1), 68–78.
- Lewis, M. A., Cadigan, J. M., **Cronce, J. M.**, Kilmer, J. R., Suffoletto, B., Walter, T., & Lee, C. M. (2018). Developing text messages to reduce community college student alcohol use. *American Journal of Health Behavior*, 42(4), 70–79.
- Lunkenheimer, E., Ram, N., **Skowron, E. A.**, & Yin, P. (2017). Harsh parenting, child behavior problems, and the dynamic coupling of parents' and children's positive behaviors. *Journal of Family Psychology*, 31(6), 689–698.
- McIntyre, L. L.**, & Zemantic, P. K. (2017). Examining services for young children with autism spectrum disorder: Parent satisfaction and predictors of service utilization. *Early Childhood Education Journal*, 45(6), 727–734.
- Namasivayam-MacDonald, A., & **Shune, S.** (2018). Dysphagia-related burden in caregivers of the elderly: A systematic review. *Geriatrics*, 3, 30.
- Noll, L. K., **Giuliani, N. R.**, Beauchamp, K. G., & **Fisher, P. A.** (2018). Behavioral and neural correlates of parenting self-evaluation in mothers of young children. *Social Cognitive and Affective Neuroscience*, 13(5), 535–545.
- Perez Grabow, A., **Khurana, A.**, Natsuaki, M. N., Neiderhiser, J. M., Harold, G. T., Shaw, D. S., . . . **Leve, L. D.** (2017). Using an adoption-biological family design to examine associations between maternal trauma, maternal depressive symptoms, and child internalizing and externalizing behaviors. *Development and Psychopathology*, 29, 1707–1720.
- Pfeifer, J. H.**, & **Berkman, E. T.** (2018). The development of self and identity in adolescence: Neural evidence and implications for a value-based choice perspective on motivated behavior. *Child Development Perspectives*. Advance online.
- Sabb, F. W.**, Hellemann, G., **Allen, N. B.**, & Bearden, C. E. (2018). Enhanced switching and familial susceptibility for psychosis. *Brain and Behavior* 8(6).
- Schindler, H. S., **Fisher, P. A.**, & Shonkoff, J. P. (2017). From innovation to impact at scale: Lessons learned from a cluster of research-community partnerships. *Child Development*, 88(5), 1435–1446.
- Seeley, J. R.**, Manitsas, T., & Gau, J. M. (2017). Feasibility study of a peer-facilitated low intensity cognitive-behavioral intervention for mild to moderate depression and anxiety in older adults. *Aging & Mental Health*, 21(9), 968–974.
- Shire, S. Y.**, Shih, W., Chang, Y. C., & Kasari, C. (2018). Short play and communication evaluation: Teachers' assessment of core social communication and play skills with young children with autism. *Autism*, 22(3), 299–310.
- Shune, S.** (2018). An altered eating experience: Attitudes toward feeding assistance among younger and older adults. *Rehabilitation Nursing Journal*. Advance online.
- Stormshak, E.**, **Caruthers, A.**, **Chronister, K.**, **DeGarmo, D.**, . . . Nash, W. (2018). Reducing risk behavior with family-centered prevention during the young adult years. *Prevention Science*. Advance online.
- Stormshak, E.**, **DeGarmo, D.**, **Chronister, K.**, & **Caruthers, A.** (2017). The impact of family-centered prevention on self-regulation and subsequent long-term risk in emerging adults. *Prevention Science*, 19(4), 549–558.
- Tanner-Smith, E. E.**, & Grant, S. (2018). Meta-analysis of complex interventions. *Annual Review of Public Health*, 39, 135–151.
- Tanner-Smith, E. E.**, Finch, A. J., Hennessy, E. A., & Moberg, D. P. (2018). Who attends recovery high schools after substance use treatment? A descriptive analysis of school aged youth. *Journal of Substance Abuse Treatment*, 89, 20–27.
- Tucker, C. M., **Smith, T. M.**, Hogan, M. L., Banzhaf, M., Molina, N., & Rodríguez, B. (2018). Current demographics and roles of Florida community health workers: Implications for future recruitment and training. *Journal of Community Health*, 43(3), 552–559.
- Waller, R. G., **Darlington, T. M.**, Wei, X., Madsen, M. J., Thomas, A., Curtin, K., . . . Camp, N. J. (2018). Novel pedigree analysis implicates DNA repair and chromatin remodeling in multiple myeloma risk. *PLOS Genetics*, 14(2), e1007111.
- Zheutlin, A. B., Chekroud, A. M., Polimanti, R., Gelernter, J., **Sabb, F. W.**, . . . Cannon, T. D. (2018). Multivariate pattern analysis of genotype-phenotype relationships in schizophrenia. *Schizophrenia Bulletin*, 44(5), 1045–1052.
- Zhou, X., Reynolds, C. R., Zhu, J., **Kamphaus, R. W.**, & Zhang, O. (2018). Evidence-based assessment of ADHD diagnosis in children and adolescents. *Applied Neuropsychology: Child*, 7(2), 150–156.

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