Welcome to Psychology Matters

Anne P. DePrince, Professor and Chair

Welcome to the inaugural issue of Psychology Matters, the quarterly newsletter of the Department of Psychology at the University of Denver.

This newsletter is designed to give you a window into the psychological matters on which we focus in our research and teaching, as well as illustrate the many ways our work matters for the advancement of psychological science and the public good.

We want to keep you informed as we continue to advance our ground-breaking research on a wide range of critically important issues and evolve with new faculty, programs, and students. For example, we are investing in cutting-edge research that addresses difficult societal problems, such as the developmental impact of early life stress. From classrooms to research, students are taking on exciting opportunities to learn while doing clinical work and research with local communities. Faculty and students are bringing psychological science to life for a new generation, doing outreach to school-aged children.

I invite you to engage with our psychology community through this quarterly newsletter and on Facebook. Please email us if you have stories to share future newsletters!

Alumni Matters

Jenna Lee Mathews, MSW
Psychology Major, Class of 2011
I graduated from DU in 2011 with a Bachelor’s of Science in Psychology and a concentration in Cognitive Neuroscience. Early in my time at DU, I encountered the issue of sexual assault, unfortunately through the experience of a close high school friend. From that point on, I became increasingly more passionate about sexual assault prevention and intervention. Working with the Psychology Department’s Traumatic Stress Studies Group in the Psychology Department, directed by Professor Anne DePrince, allowed me to explore the impact of interpersonal trauma on individuals and communities from an academic perspective. As a volunteer with DU’s sexual assault hotline and a member of the Rape Awareness & Gender Education student group, I connected personally with survivors in the DU community as we increased awareness among our peers.

When I moved to Boston, MA after graduation, I worked as an AmeriCorps VISTA at Massachusetts College of Art & Design, supporting collaborations focused on bringing art programming to community spaces. Despite the shift in my focus, I was still confronted with the issue of sexual assault both on campus and in the community. So I returned to graduate school two years later to earn my Masters of Social Work at Simmons College in Boston to develop clinical skills needed to further support survivors. In my clinical field experience in medical and college settings, and continued research with survivors of intimate partner violence, the pervasive nature of sexual assault remained apparent.

After completing my MSW in June, my husband and I returned to Denver, and we are thrilled to be back! In my current position as a therapist at The Blue Bench, Denver’s center for sexual assault prevention and care, I collaborate with survivors to move toward healing through individual and group therapy. Supporting survivors of sexual assault is crucial work that we can all be a part of through our roles as advocates, therapists, researchers, family members, and friends. If you’d like to learn more about sexual assault and how you can support survivors, feel free to visit www.thebluebench.org or rainn.org.

Research Matters: Affect Social Cognitive Science

Detre Godinez, Ph.D.
Postdoctoral Fellow

Our brain develops over an extended period of time through interactions between our genes and our environment. By utilizing twin research to explore how shared and unshared environmental experiences influence this development, we can better understand environmental conditions that lead to optimal development. In a recent study, both familial effects and effects specific to Attention Deficit Hyperactivity Disorder were found during performance of a classic measure of cognitive control – the Stroop Task. In this study young adult twins who met diagnostic criteria for ADHD in childhood were compared to their fraternal co-twins, who share a familial environment.
and on average 50% of their genes, as well as a group of unrelated controls with low levels of ADHD symptomatology. In terms of the familial effects, both the twins with ADHD as well as their control co-twins without ADHD showed deactivation of the orbital frontal cortex (OFC), insular cortex, and anterior cingulate cortex (ACC), compared to the unrelated controls. These regions are related to reactive control, which includes evaluative processing and conflict detection. In terms of ADHD-specific effects, the twins with ADHD showed less activation in superior frontoparietal regions related to proactive control, compared to both their control co-twins and the unrelated controls. The frontoparietal and cingulo-opercular brain networks are both commonly referred to as control networks. We think that similarity in brain activation found between the twins with ADHD and their control co-twins may reflect an underlying familial risk for decreased reactive control and related affective processing. Cognitive processing more specific to goal maintenance and motor control may determine whether these risk factors put an individual “over the threshold” for being diagnosed with ADHD.

My current research focuses on how stress may impact the development of frontal and limbic brain regions. As one might suspect, stress may predispose an individual to use reactive control more often and therefore utilize brain resources related to affect and evaluation. To explore this further, I worked with a sample of monozygotic twins (i.e., identical twins, who share a familial environment and on average 100% of their genes). We selected twin pairs in which one twin had at least 2 severe life events before age 18 while their co-twin had no major events. This design allowed me to “narrow in” on effects that might be specific to stress while controlling for other genetic and shared environmental factors such as socioeconomic status, prenatal environment, nutrition and schooling. Despite sharing the same genes and familial environment, twins who had experienced 2 or more severe stressful life events during development showed greater activation in the medial regions of the brain including the anterior cingulate, basal ganglia, amygdala, and hippocampus during a word-emotional face Stroop Task. In comparison, their control co-twins with no major stressful events showed only activation of frontoparietal areas that are associated with proactive control. This research highlights how individuals who experience severe stress have increased involvement of brain regions involved with regulating reactive behavior, even in comparison to co-twins who share the same genes and environment. Future research will seek to understand how different types of physical and social stressors and an individual’s perception of control over the stressors influence the development of emotional and cognitive control.

*Detre Godinez is a Renew DU postdoctoral fellow working in the Automaticity, Affect, Control, and Thought (AACT) Lab with Assistant Professor Kateri McRae. She is a graduate of the Psychology Behavioral Genetics department and Developmental Psychobiology postdoctoral fellow program at the University of Colorado. Her research focuses on cognitive and emotional control with a particular interest in utilizing longitudinal, twin, family and community designs to study stress and the development of frontal and limbic brain regions.*

*To learn more about the Automaticity, Affect, Control, and Thought (AACT) Lab, visit [here](#).*

When women experience intimate partner violence (IPV), what is the impact of the police response on survivors’ psychological outcomes? When intimate abuse is reported to law enforcement, the police response is often part of the immediate aftermath of trauma and may contribute to survivors’ initial processing, potentially influencing the development of PTSD symptoms. Additionally, the unique role of police as institutional representatives specifically entrusted to protect vulnerable or victimized individuals may further implicate the police response as a salient factor contributing to PTSD symptoms. No research to date had ever considered the impact of the police response, or any other component of criminal justice system support, on IPV survivors’ psychological outcomes.

Funded by the National Institute of Justice, and facilitated by partnerships with a range of local criminal and community-based organizations, the Triage Project involved interviews with 236 female survivors of intimate partner violence (IPV) reported to law enforcement in Denver, CO. DePrince was the Principal Investigator, and members of the Traumatic Stress Studies (TSS) Group conducted the interviews, which included questions on a range of variables relevant to understanding the experiences of women who have survived IPV.

Using data from the Triage interviews, we explored whether the police response was indeed related to women’s PTSD symptom severity following the IPV incident. To measure the police response, they employed women’s ratings of treatment by the police, as well as variables extracted through listening to, transcribing, and coding the section of the interview during which women described their interactions with the police. These variables corresponded with women’s reported overall level of respect by the police, unmet expectations in relation to the police, and negative biases towards the police. Analyses showed that a more negative police response was significantly associated with higher PTSD symptom severity, over and above the contribution of known predictors including personal resources (e.g., income, education), social support, and severity of injury sustained during the IPV incident. In particular, one indicator of the police response—unmet expectations (i.e., actions or behaviors the police did not do that the participant wished the police had done)—significantly predicted PTSD symptom severity. In this sample, 49% of women reported at least one unmet expectation.

These findings are the first (or which we are aware) to show links between the police response and women’s psychological outcomes following IPV. In terms of research and policy implications, greater understanding of the psychological impact of the police response may be especially critical due to the effect negative psychological outcomes are known to have on other parts of IPV survivors’ lives (e.g., use of the criminal justice system, decisions to leave the abusive relationship), and to the immense associated public health costs. I hope the findings will encourage further research that evaluates the
psychological impact of various components of criminal justice system support, with the ultimate aim of making institutional responses more adaptive to IPV survivors’ psychological well-being.


Tejas is a 5th year graduate student in the Child Clinical PhD Program. Her research mentor is Professor Anne DePrince. Tejas received the Department’s 2015 Harry Gollob Award for her first-author publication, “Links Between the Police Response and Women’s Psychological Outcomes Following Intimate Partner Abuse”.

To learn more about the Traumatic Stress Studies Group, visit here.

Research Matters: Developmental Science

Stephanie Stout
4th year Graduate Student (Developmental, DCN Programs)

Childhood obesity is at an all-time high in the US, affecting 18% of children ages 6-11. Researchers have started to investigate factors earlier in life which might contribute to the risk of becoming obese in order to better identify and treat these children. Research has shown that factors such as a mother’s diet, stress, and physical and mental health during pregnancy can influence their child’s health throughout their entire life. For example, mothers who were pregnant during the Dutch famine had children with increased rates of cardiovascular disease as adults. One of the ways in which a mother’s experiences during pregnancy can influence their child’s development, and ultimately their health status, is by producing abnormal levels of stress hormones. While stress hormones help both the mother and fetus to adapt to the environment, there is growing evidence that abnormal levels of stress hormones during pregnancy can contribute to a child’s health.

With my research collaborators, we tested whether stress hormone exposure during pregnancy contributed to infant growth patterns associated with the risk of becoming obese. There is a pattern of growth in infancy termed “catch-up growth,” which is characterized by a rapid, dramatic increase in body size (e.g. weight or height) during infancy. Those infants who are born smaller and exhibit this “catch-up growth” profile are more likely to develop obesity, cardiovascular disease, and metabolic problems (e.g. diabetes) later in life. To measure stress hormone levels, we collected blood samples from mothers during pregnancy. We then measured their infant’s body mass index (BMI; a measure of body size) at birth, 3, 6, 12, and 24 months. We found that those infants exposed to higher levels of the stress hormone placental corticotropin-releasing hormone (CRH) were born smaller and showed the catch-up growth pattern associated with the risk of becoming obese.

These findings have two important implications. First, they suggest that the stress hormone, CRH, is involved in fetal and infant growth and perhaps even in the development of obesity. Second, while the findings of this study do not tell us whether CRH exposure causes obesity, they do tell us there is something unique happening during pregnancy that contributes to early growth and health status. This
new information strengthens the argument that obesity researchers should consider the prenatal environment when looking for early risk factors.

Stephanie is a 4th year graduate student in the Developmental PhD Program. Her research mentor is Associate Professor Elysia Davis. Stephanie received the Department’s 2015 Harry Gollob Award for her first-author publication, “Fetal programming of children’s obesity risk” with co-authors Stout SA, Espel EV, Sandman CA, Glynn LM, Davis EP.

To learn more about the Neurodevelopment Research Program, visit here.

Diversity Matters

Eliana Hurwich-Reiss  
6th year Graduate Student  (Clinical Program)

Latino families in the United States have been shown to have less access to and receive fewer and poorer quality mental health services than do their European American counterparts. Well-documented barriers to mental health care including language barriers, a lack of services in Latino neighborhoods, mistrust based on discrimination and immigration status, as well as transportation and financial barriers are particularly concerning as unmet mental health needs contribute additional stress to already burdened low-income Latino families.

In order to begin to fill a large gap in research and service delivery to low-income Spanish-speaking families, in collaboration with graduate student Laura Rindlaub, Dr. Martha Wadsworth, Dr. Howard Markman, the FRAME team, and our outside community collaborators, we assessed the feasibility of implementing FUERTE, a culturally and linguistically adapted version of the Fatherhood, Relationship and Marriage Education psychoeducational intervention, in a community setting. FUERTE was specifically designed to target financial stress and how to cope with it, interparental relationships, and parenting for low-income Spanish-speaking families. As recommended by established cultural adaptation methods that guided the current project, three community focus groups were conducted to inform the adaptation of FUERTE’s intervention and assessment materials and Spanish translations, and to understand community needs. Cultural adaptations included implementing the intervention in a trusted community location rather than at the university, changing example scenarios, metaphors, activities and program goals to be culturally and linguistically appropriate, having bilingual and bicultural intervention group leaders, and providing childcare and meals to eliminate attendance barriers.

A pilot study was then conducted that included nine low-income Spanish-speaking couples with a child in Head Start. Out of the 17 adult participants, 100% were born in Mexico. Parents completed four weeks of biweekly three-hour workshops, which were composed of lecture, group discussion, partner activities, videos, and take-home assignments. Participants also completed a pre and post-intervention assessment that included quantitative, qualitative, and parent-child and couple observational assessment methods. In order to cater to a variety of literacy levels, questionnaires were conducted in interview format. Results demonstrated that implementing FUERTE in a community setting was both
feasible and acceptable to community participants. We found preliminary pre- to post-intervention
effects on measures of stress, relationship danger signs, the parent-child relationship, and parent and
child mental health. Future plans for FUERTE include further content development, coding of the
observational assessment tasks, and additional piloting with longer term follow-up assessments. The
current study’s cultural adaptation process and feasibility, acceptability and efficacy results were

adaptation of a family strengthening intervention for low-income Spanish-speaking families. Journal of
Latina/o Psychology, 2(1), 21.

Eliana is a 6th year graduate student in the Child Clinical PhD Program. Her research mentor is Professor
Sarah Watamura. Eliana received the Department’s 2015 Inclusive Excellence in Research Award for her
first-author publication, “Cultural Adaptation of a Family Strengthening Intervention for Low-income
Spanish-Speaking Families” with her co-authors Laura A. Rindlaub, Martha E. Wadsworth, and Howard J.
Markman.

Major Matters

Amanda Pennington
Psychology Major, Class of 2016

Lying on the floor of a lab, tossing a marker at a pockmarked, stained by who-knows-
what ceiling as you slowly realize that there is a glaring error in your study methodology
is certainly one of the most terrifying stress dreams of the psychology world. Another is
that the universe has quite suddenly run out of coffee. I think we can all agree that the latter scenario is
far more frightening.

For me personally, research has been both the bane of my existence and the unquestionable highlight of
my short time in the psychology department. It has also been the most important aspect of my
education. Participating in research as an undergraduate provides learning opportunities that are
impossible to get anywhere else, such as how to make pleasant conversation two inches from a
participant’s face while cleaning it for an EMG study, or how to improvise an intelligent-sounding
answer to a hardball question asked by an important looking person at a poster presentation without
passing out.

Research is a struggle, my friends.

But these dizzying days and stressful evenings are worth the hard work when the key t-test comes back
significant, the manuscript gets submitted for publication, or the meeting with your advisor ends with
something sappy and encouraging, like “This project never would have happened without you” or “I’ve
totally made this same mistake before – we’ll figure this out.”

Getting involved with this department and its community has truly changed my life. The outstanding
people I’ve met here have taught me how to think, how to write, how to have confidence in my ideas, and how to ask for help when I need it. They have injected humor and positivity into the darkest and most stressful of days, and they have become my friends, mentors, and role models. Someday when I become a mentor myself, I will pass on these teachings and stories and fondly remember the long nights in the lab and the coffee-fueled brainstorming sessions. And, when I inevitably reach a point where I don’t know what to do, I know exactly whom I’ll be calling for support and encouragement.

Knowing that I am contributing to a constantly evolving body of knowledge with some of the best people and minds of my time is incredible. We as psychologists have a unique way of seeing the world, and we have the important job of making that world better as a result. By conducting and supporting research, we can continue to succeed, innovate, and thrive as an institution and community.

So, volunteer for a study, take a survey for an honors student, or go to a poster presentation. Support undergraduate research and the opportunities it provides our Pioneers in whatever way you can.

Oh, and next time you pour a cup of coffee or chug a Red Bull, think of the senior honors students and wish us luck on our theses. We are going to need it.

**Teaching Matters**

Omar Gudiño, PhD
Professor

To help graduate students prepare to work in diverse communities, our department offers a Multicultural Issues in Mental Health course. This course provides an overview of theory, research, and practice issues related to the mental health of diverse groups and promotes competence in working with diversity issues across the various professional roles of a psychologist.

Moving beyond traditional classroom walls, I have partnered with the Colorado Department of Human Services, Office of Behavioral Health (CDHS OBH) to teach this course. Students participating in the course have produced a series of community-engaged projects designed to deepen their understanding of multicultural issues while developing products that can be used for the benefit of the community. For example, students previously developed a resource handbook on the scientific evidence supporting various clinical practices with diverse populations. The handbook was distributed to local mental health agencies and was disseminated electronically through the official state website of CDHS. Students have also served as cultural competence consultants to CDHS, by reviewing state policies governing the delivery of mental health services and providing consultation on how these practices align with national Culturally and Linguistically Appropriate Services (CLAS) Standards developed by the Office of Minority Health, U.S. Department of Health and Human Services. This quarter, students are again serving as consultants to CDHS by developing a series of written products and presentations on strategies that can enhance the ability of mental health service agencies to engage and retain diverse clients in services and improve community-agency partnerships.
By engaging with community partners, students broaden and deepen their understanding of diversity issues while generating knowledge to be applied in the service of underserved populations. Although these projects require much effort on the part of students, the potential for directly impacting the wellbeing of diverse communities was a source of motivation and satisfaction for students. Likewise, our partners at CDHS appreciate the thoughtful work of students and value “working together to achieve similar goals” of addressing the mental health needs of diverse communities. We are grateful that this partnership was beneficial for student learning, supporting CDHS in achieving its mission, and for contributing to the public good.

A version of this article also appeared in CCESL’s Public Good Impact, Winter 2015. This work was supported by the DU Center for Community Engagement & Service Learning (CCESL).

An Assistant Professor, Dr. Gudino directs the SAYF Lab.