Notes from 2018 Developmental Science Initiative Celebration and Mini-Retreat

26 Oct 2018, Noon-4pm, Eric Carle Museum, Amherst MA

~45 participants attended all or part of the event

Presentations

Student presenters, including DSI student grant recipients:

Xingjie Chen (developmental science program)

Maggie Ugolini (neuroscience and behavior program)

Andrea Craft (clinical psychology program)

Abby Fontaine Helm (developmental science program)

Susanne Aschemann (visiting PhD student from VU Amsterdam, developmental cognitive neuroscience)

Faculty presenters:

Celebrations and introduction (Kirby Deater-Deckard): see “slides” on subsequent pages

Teaching/training (Erik Cheries): opportunities for summer high-school student trainees, and honors thesis seminars; maintaining the introductory developmental psychology undergraduate (UG) course

DSI next stage/phase (Buju Dasgupta): connecting DSI with new and existing centers and institutes at UMass, as we build future of the initiative; new Institute for Diversity Science presented to exemplify potential activities for building collaborative networks for research, teaching and outreach

Springfield HDI lab (not presented due to time constraints): see “slides’’ on subsequent pages

Brainstorm Session

We discussed new ideas/challenges in growing the initiative, and innovating our teaching/training, research, and outreach. A summary of the points discussed and/or written and submitted follows.

Teaching and Training: need to develop a new honors thesis seminar(s) to address honors college need (perhaps having PhD students serve as mentors, could contribute to their comp/dissertation preparation); developing new courses/teaching opportunities for graduate students to teach (going beyond CPE, traditional in-person courses; UG thesis courses; summer UG thesis courses?); summer intensive students (brings in funds that could be shared as a group); funding transportation for summer course students (including high schoolers) and/or scholarships to move beyond families that can afford summer experience opportunities; training grants not likely to succeed so focus instead on increasing student-led fellowship applications (NSF, NRSA; example from R Spencer student grant writing pgm)
**Research and Outreach:** better capitalize on new methods of data collection (social media, web, mobile devices, data analytics, genetic/physio methods); invite speakers and/or develop new courses on these newest methodologies; innovating how we situate/place data collection locations in Springfield and other communities in the area (neighborhoods, schools, etc.); identify and visit model urban research lab locations (e.g., “sister city” concept; Flint; Detroit) to see models for Springfield/Holyoke, and tie-in our efforts in communities with campus effort regarding respect and dignity for all people; innovate in our recruitment of participants (e.g., vitalize our advertising materials and processes, share/coordinate staffing, offer play groups/parents day out events); building developmental assessment library and training of assessors to be able to offer assessments throughout communities as part of research/outreach efforts

**Cross-cutting:**

Inclusion – there are groups on campus (UG and Grad) responding to hate crimes and racial profiling on campus (what could/should we be doing?); it often comes up that we need to do better job recruiting and retaining students of color

Creating opportunities for connecting: re: space – graduate diversity committee has noted desire for shared lounge space across programs in PBS in Tobin (add to renovation plan?); also, creating opportunities for more communication among post-docs, and between post-docs and PhD students
Welcome...
New UMass PBS fac/staff/students
UMass non-PBS fac/staff/students
5 College fac/students/staff
Bragging time! 😊

Partial listing of *new grants/fellowships/honors*

Adaeze Egwuatu: UMass Spaulding-Smith STEM Fellowship

Shereen El Mallah: Post-doc, U Virginia

Kirby D-Deckard: NIDA renewal; 2018 Leona Tyler Lecturer (U Oregon)

Chaia Flegenheimer: Post-doc, Penn State

Shayl Griffith: Post-doc, Florida Intl U

Youngbin Kwak: CRF Scholar; UMass Extension CAFE grant

Sarah McCormick: travel award, Occasional Temperament Conf 2018

Jen McDermott: *UMass Institute for Diversity Sciences Seed Grant*

Maureen Perry-Jenkins: 2018 Ernest W. Burgess Award (NCFR)

Charisse Pickron: Post-doc position, U Minn

Bekki Spencer: NIA renewal; new NSF longitudinal study; new R56 project

Ashley Woodman: Open Education Initiative grant
Bragging time! 😊

A sampling of student publications (lead or co-lead) since 9/1/17:

APA Handbook of Contemporary Family Psychology (M Li)

Behavioral Sleep Medicine (M Chary)

Child Development (C Pickron)

Developmental Science (S McCormick)

Frontiers in Psychology (M Li)

J Children & Media (S Griffith)

J Research Adolescence (S El Mallah)

JCCAP (S Griffith)
Bragging time! 😊

Grant review panel members:

NIAAA Neuroscience study section (NIAAA IRG)

Cognition & Perception study section

IES Social/Behavioral Contexts for Learning review panel

DHHS multi-agency Rehabilitation Research Training ctr review panel

...and many others serving ad hoc grant reviewers for national and international orgs

Editorships

Attention, Perception & Psychophysics (Assoc Ed)

APA Handbook of Contemporary Family Psychology (Assoc Ed)

Frontiers in Developmental Science (books; Taylor & Francis) (Co-Editor)
Bragging time! 😊 -- Editorial Board Memberships (partial listing)

Adoption and Fostering
Adoption Quarterly
Community, Work and Family
Developmental Psychology
Family Process
Frontiers: Decision Neuroscience; Behavioral and Psychiatric Genetics; Child and Neurodevelopmental Psychiatry
Identity: International Journal of Theory and Research
Infant & Child Development
International Journal of Behavioral Development
Journal of Abnormal Child Psychology
Journal of Child Psychology and Psychiatry
Journal of Clinical Child & Adolescent Psychology
Journal of Early Adolescence
Journal of Family Theory and Review
Journal of Family Psychology (x2)
Journal of Marriage and Family
Journal of the Measurement of Physical Behaviour
Journal of Motor Behavior
Parenting: Science & Practice
SAGE Open
...with many more ad hoc reviewers for wider array of journals
Developmental science addresses ‘what' develops, 'how' development occurs, and the contexts of development...

Goal of DSI: Become a premier center of scholarship, teaching, and outreach devoted to the understanding and fostering of human development.

Multidisciplinary research...

Integration of multiple domains (e.g., biological, cognitive, affective, social, physical, and health) and levels of analysis (neurological, behavioral, relational)

Diverse methods...wide array of outcomes...

Teaching, training, mentoring, outreach...
DSI brings together:

Five Colleges

UMass Psych and Brain Sciences (PBS)

UMass Devp Science Pgm in PBS

Developmental Science Initiative (DSI)

Sharing resources (recruitment; labs)

Training future professionals

Sponsoring joint seminars/events
Planting a seed for later discussion: Brainstorm topics --

What is our next phase/stage as an initiative? (center?)

Ideas for teaching and training (students and post-docs)

Ideas for strengthening our research and outreach
Major Activities

Seminar series and special lectures (thank you Joon)
- 3 to 4 joint-program/5 College talks per semester
- next Fri (2 Nov) DSI special lecture with Amherst College, next slide
- save date: Fri, 26 Apr 2019, Prof. Charles Nelson (Harvard), loc tba

Database (thank you Erik C., Charisse, and Erik A)
- continuing to grow; current focus on creating more stable staff support
- Alix Alto new coordinator (10hrs/wk)
- thanks to all who contribute; keep it coming!

Springfield Healthy Development Initiative
(thank you Brenda and Lizmarie, and PhD students)

- Kirby will give more detailed update later today
“Asking questions: Trusting what you’re told”

PAUL HARRIS, PhD
Victor S. Thomas Professor of Education
Harvard University

FRIDAY, 2 NOV 2018
4 - 5 PM, reception follows @ Lord Jeff Fayerweather Hall (Pruyne Hall)
Amherst College
Major Activities

Curriculum/training (thank you curr comm [David, Joon, Jen, Abby])
- Recent/current grad courses spanning developmental cognitive and social-emotional science and neuroscience

- New courses to be developed in coming year, undergraduate curriculum - cognitive dev., social-emot dev., diversity and dev.; disabilities and dev.; advanced lab in dev science

- NSF NRT training grant – no dice; keep trying or shift gears?

- Erik C. will be sharing some new ideas later today

Seed grants for faculty and students: RFA soon; 31 Dec deadline

See next slides for summary of current faculty seed grant projects
“Seeing is Believing”
A Developmentally Sensitive Intervention to Increase Resilience to Stereotype Threat and Enhance Executive Function (EF) Skills in Middle Childhood

Jennifer M. McDermott & Nilanjana Dasgupta

➢ Stereotype Threat (ST) Prime – ‘Boys like to play with blocks more’
  • This mild ST prime negatively impacts EF skills and emotion reactivity in females
  • A ‘Lift’ effect is being assessed in males, with the prime predicted to enhance their performance

➢ ST Inoculation
  • Peers present task instructions via video. We are exploring whether:
    ➢ a female peer presenter negates the effect of the ST prime for females
    ➢ a male peer presenter enhances ST effects for females
Piloting a Community-Based Digital Storytelling (DST) Intervention to Address Postpartum Depression in Adolescents (Gubrium & Powers)

Recruitment/Screening
- No more than 36 weeks gestation time of workshop
- African-American/Latinx
- Singleton pregnancy
- Ages 15-24
- ≥10 on EPDS
- Not substance user

Recruitment sites:
- Wesson Women’s Clinic (n=1)
- Square One Healthy Families Program
- WIC
- Facebook (n=9)

Baseline (T1)
Intervention
Baseline survey + hair/saliva sample + DST workshop (n=8)

Post-Intervention (T2)
2 weeks post-intervention survey + hair/saliva sample (3rd trimester) (n=8)
Qualitative interview (n=8)

Post Delivery (T3)
Survey on delivery outcomes (n=5; 3 are still pregnant)

3 mos. postpartum (T4)
Survey + hair/saliva sample (TBD)
Survey on mother-infant outcomes (TBD)

6 mos. postpartum (T5)
Survey + hair/saliva sample (TBD)
Survey on mother-infant outcomes (TBD)

Research Challenges
Baystate IRB – took 1 year
Clinical recruitment
Square One staff turnover
Research staffing

Research Team
Aline Gubrium, UMASS
Sally Powers, UMASS
Sarah Goff, Baystate-UMMS
Nancy Byatt, UMMS
Joni Beck Brewer, Square One

Preliminary Findings
- Significant housing insecurity/homelessness in community
- Need for multilevel interventions (psycho-social/social service/legal)
- Facebook recruitment affords participant autonomy
- DST as mechanism for centering pregnancy (including by maintaining connection through Facebook afterward)
- DST as mechanism for establishing trust/connecting participants to supports and resources
- Measuring stress – participants want to know their stress levels (ethical issue)
- Texting for participant retention – researcher/participant boundaries (ethical issue)

Feasibility and acceptability assessments
Step 1: Two focus groups conducted with Square One staff (n=5 for each): Perspectives, suggestions/best practices
Step 2: Recruitment rates/barriers to participation; enrollment rates, engagement, acceptability, satisfaction, fidelity assessment
The Impact of Physical Activity on Well-Being for Adolescents with Autism Spectrum Disorder and their Parents

Ashley Woodman (UMass), Rebecca Spencer (UMass), Miriam Evans (EdTogether)

Sample
- N=20 adolescents (age 13-22) with autism spectrum disorder and their parents

Method
- Parent & teacher questionnaires
- Parent & adolescent daily diary (7 days)
- Parent & adolescent actigraphy (7 days)

Key Measures
- Parent & adolescent activity, sleep, & well-being
- Adolescent behavior problems, daily living skills, social skills
- Parent coping strategies, social support

Research questions:
1) Does adolescent activity predict adolescent well-being (behavior problems, positive/negative affect) and sleep quality?
2) Does sleep quality mediate the impact of physical activity on next day well-being for adolescents?
3) Does adolescent well-being and sleep quality predict parent well-being and sleep quality?
4) Is the impact of adolescent factors on parent outcomes moderated by coping and social support?
Preliminary Finding: Children’s ability to process *possessive recursion* correlates with their ability to *count numbers* (which is a recursive system)

Tom Roeper & Joon Park

Currently working on submitting a grant proposal for a larger-scale study
• **Who We Are:** We are an urban research and outreach “collaboratory” between community partners, and researchers and staff at UMass Amherst and UMass Center at Springfield.

• **What We Do:** We conduct research, education, and outreach projects regarding human development.

• **Our Mission:** We strive to understand and promote the psychological and physical health and well-being of children, adolescents, adults, and seniors in our communities.

• **Thanks** to generous support from UMass Amherst, College of Natural Sciences, and Dept of Psychological and Brain Sciences
HDI Personnel: A partial list...and growing!

Graduate student investigators: Krystal Cashen, Mamatha Chary, Shannon Gair, Abby Fontaine Helm, Rachel Herman, Sungha Kang, Sanna Lokhandwala, Mengjiao Li, Sarah McCormick, Adrian Rivera-Rodriguez, Zach Salander, & others!

Many undergraduate research assistants from UMass Amherst, Bay Path, & Westfield State

Community liaison and coordinator: Brenda Evans (joint position with UMass Center for Community Health Equity Research)

Enrollment/scheduling/data collection support: Lizmarie Lopez-Ortiz

Laboratory technician/programmer: Erik Arnold
Current and recently completed grants/contracts:

Local school research methodology contract via CRF (El Mallah)

NIDA R01 DA036017 (sub-contract via Virginia Tech) (KDD)

Overdeck Family Foundation (D Arnold)

UMass Extension Ctr for Agriculture, Food, & Env (Y Kwak)

MA Dept Elem/Secondary Ed grant (health and wellness with SPS) (KDD)

Ongoing and new initiatives:
Research+outreach, growing partnerships!

- Data collection (behavioral, physio)
- Project ACCCESS team building (Sara Goff, Kathleen Szegda)
- In the field (e.g., schools)
  - Chestnut Street middle schools 4-H/CAFE (Lizmarie)
  - Chestnut Street Collaboratory (Sarah)
  - CM4U: in-house field trips (piloting this year)
  - SPS Pre/K-5 on-site data collection collaboration (multiple principals)
  - SPS PACE center collaboration (J Welch)
  - SPS health and wellness collaboration (M Heim)
Significant challenges lie ahead...

- Future directions of UMass Ctr @ Springfield
- Funding personnel, rent, parking, and seed funds beyond July 2020