Faculty Associates Networking Dinner

Faculty Research with Children and Youth

Monday, September 8, 2014
Environmental barriers to behavior and language intervention

Research activities

• **Overall objective:** To identify barriers to early access to behavioral and language services for children with developmental and acquired neurogenic disorders
  - Projects conducted with Nancy Roizen (RB&C), Elizabeth Short (CWRU/A&S), Gerry Taylor (RB&C), & Jennifer Peterson Lundine (OSU/Nationwide Children’s)

• **Major issues addressed current projects:**
  - Patterns of referral for intervention in children with TBI during their acute hospitalization; Specific inclusion of direct family training in intervention for children with TBI
  - Use of telepractice for risk assessment and screening for developmental delay in high-risk, low income populations

Angela Hein Ciccia
Dept. of Psychological Sciences, Communication Science Program
Environmental barriers to behavior and language intervention

Implications

• Findings to date:
  – Data not yet analyzed

• Potential policy implications - examples
  – Health care reimbursement for direct intervention of behavior and language issues, in addition to education, for the family
  – More consistent reimbursement of telepractice-based service delivery models
  – Health care reimbursement for screening by allied health professional rather than pediatrician

Angela Hein Ciccia
Dept. of Psychological Sciences, Communication Science Program
Medical Legal Partnership

- Often, factors impacting health cannot be solved with medicine alone
  - Lawyers can provide missing expertise
  - Requires interdisciplinary collaboration
- Medical Legal Partnership (MLP) – National Model
  - Prior Experience in Boston and Pittsburgh
- Current Status
  - CaseCAN (Case Western Reserve University) Child’s Access Now Program, supported by Ohio Medicaid
  - Collaboration with Laura McNally-Levine in School of Law
  - Consultation with MetroHealth longstanding program and Dr. Needlman
- Next step:
  - Development of needs assessment for Rainbow population
MLP Policy Implications

• Results of Needs Assessment likely to inform child health policy recommendations.

• MetroHealth experience: Assistance provided included
  • Income supports,
  • Housing and utilities,
  • Employment,
  • Education,
  • Legal/immigration services,
  • Personal/family safety

• NY Times Op-Ed July 2014: “When Poverty Makes You Sick, a Lawyer Can Be the Cure”
For 50 years, our response to child abuse and neglect has relied on:

Mandatory Reporting

Foster Care

We need new strategies to respond to major changes in:

Childhood  Families  Communities
Evaluation of Team Decisionmaking 2006-present
• Funded by Annie E. Casey Foundation
• Established correlation between TDM practices and desirable child welfare outcomes
• Testing TDM fidelity measure
• Planning with Child Trends an RCT of TDM in a state TBD

Strengthening Homeless and Child Welfare-Involved Families through Pay for Success
• Funded by Social Impact Financing
• Identified a small, but expensive, group of children in foster care whose caregivers are homeless
• Combines Housing First and Trauma-informed services to promote timely exit from foster care

Neighborhood Factors & Child Maltreatment: A mixed-methods study (8/1/13 – 7/31/17)
• Funded by NICHD
• Investigates how maltreatment rates are influenced by neighborhood conditions, availability of social services, and reporting/substantiation process.
• Uses in-depth, qualitative data from neighborhood residents, agency workers, neighborhood experts; and 20 years of quantitative administrative data
• Partners: School of Medicine (Jim Spilsbury), College of Arts & Sciences / Dept. of Anthropology (Jill Korbin), Mandel School of Applied Social Sciences (Claudia Coulton & David Crampton)
Dorr Dearborn, PhD, MD
Mary Ann Swetland Professor Emeritus; Chair Emeritus, Environmental Health Sciences

Current Research Projects:
• Residential Air Quality and COPD

Current Community Activities:
• Exec Committee, Healthy Homes Advisory Council of Greater Cleveland
• Co-Chair, Invest in Children’s Committee for Goal 2, Safe and Healthy Children
• Advisory Committee, Prevention Research Center for Healthy Neighborhoods, CWRU SOM
Rob Fischer, Ph.D.
Co-Director, Center on Urban Poverty & Community Development

Major issues addressed

• Early childhood development and key influences
• Using integrated data systems to inform policy & practice
• GIS-based analysis to gauge need and guide targeting
• Assessing delivery & effectiveness of community-based programs
Rob Fischer, Ph.D.
Co-Director, Center on Urban Poverty & Community Development

Findings/policy implications

- Early childhood influences on kindergarten readiness and 3rd grade proficiency passage
- Monitoring efforts to expand high quality child care in the City of Cleveland
- Integration of child lead exposure data to assess lifetime exposure of children pre-kindergarten
- Positive effects of selected programs such as newborn home visiting, early childhood mental health services
The Begun Center for Violence Prevention Research and Education

Daniel J. Flannery, Director
Patrick Kanary, Director CIP
Jeff Kretschmar, Research Asst. Professor
Current/New Projects

• Defending Childhood Initiative (DOJ)
• Juvenile Drug Courts (SAMHSA)
• Partnership for Evaluation, Research, and Implementation (PERI)
• Suicide Prevention
Center for Innovative Practices

• Wraparound-ENGAGE
• Functional Family Therapy
• Integrated Co-Occurring Treatment-ICT
• Multisystemic Therapy-(MST)
• Intensive Home Based Treatment-IHBT
• Resilience and Trauma
Policy and Advocacy

- Juvenile justice reform in collaboration with the Schubert Center and supported by the MacArthur Foundation
- MHAS Clinical Roundtable Member
- MHAS Trauma Informed Care Advisory Board
- COD Brief sponsored by the National Mental Health and Juvenile Justice Center and the National Council of Juvenile and Family Court Judges
- Member of the SAMHSA Technical Assistance Network
Delivery and Cost Studies of Public Health Services

- Immunization, Epidemiologic Surveillance, Food Safety, Tobacco Enforcement, Nuisance Inspection and Abatement

Local Health Departments as Partners in School Health (Kristina Knight, Junior Investigator Award)

- Addressing Educationally Relevant Health Disparities: The Partnership of Local Health Departments and Public Schools
- Implementation of Priority Actions for School Health: A State Level Profile of the Role of Local Health Departments
- Local Health Departments as Partners in School Health: A State-Wide Assessment of Collaboration for Coordinated School Health

Scott Frank MD, MS
Director, CWRU MPH Program
Director, Shaker Heights Health Department
Principal Investigator, Ohio Research Association for Public Health Improvement
## Unofficial Rules of Adolescence

### UROA Survey Item (n=1037)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Freq %</th>
<th>Factor Loading</th>
<th>Alpha w/ Item Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fitting In</strong></td>
<td>15.1%</td>
<td>.558</td>
<td>.753</td>
</tr>
<tr>
<td>When it comes to anything that really matters, my friends' opinions matter more than my parents' opinions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trying Out</strong></td>
<td>21.4%</td>
<td>.529</td>
<td>.755</td>
</tr>
<tr>
<td>Sometimes I get into trouble because of things my friends talk me into doing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trying On</strong></td>
<td>28.3%</td>
<td>.605</td>
<td>.747</td>
</tr>
<tr>
<td>When it comes to the clothes I wear, my hair, tattoos or piercings, my friends' opinions matter more than my parents' opinions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Looking Good</strong></td>
<td>24.1%</td>
<td>.535</td>
<td>.754</td>
</tr>
<tr>
<td>If someone disrespects or insults me, it's very important to do something to get them back</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Getting Over</strong></td>
<td>29.3%</td>
<td>.651</td>
<td>.740</td>
</tr>
<tr>
<td>If I think and rule is unfair, it's OK to break it</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Getting Over</strong></td>
<td>45.1%</td>
<td>.723</td>
<td>.727</td>
</tr>
<tr>
<td>Lying to parents or other adults is just part of being a teenager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Getting Mine</strong></td>
<td>22.1%</td>
<td>.397</td>
<td>.770</td>
</tr>
<tr>
<td>It's really important to me to have the newest and best clothes, games, and gadgets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Getting Some</strong></td>
<td>30.5%</td>
<td>.604</td>
<td>.742</td>
</tr>
<tr>
<td>Having sex is just part of being a teenager and should not be viewed as a problem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Getting Out</strong></td>
<td>52.5%</td>
<td>.673</td>
<td>.736</td>
</tr>
<tr>
<td>Whenever possible, I would rather get together with my friends when there are no parents or adults around</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cronbach’s Alpha = 0.77  
Eigen value = 3.21; 35.7% of variance explained

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Ever</td>
<td>4.31</td>
<td>3.18-5.84</td>
</tr>
<tr>
<td>Current Alcohol</td>
<td>3.87</td>
<td>2.85-5.26</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>3.89</td>
<td>2.62-5.79</td>
</tr>
<tr>
<td>Current Cigarettes</td>
<td>4.10</td>
<td>2.14-7.85</td>
</tr>
<tr>
<td>Current Marijuana</td>
<td>3.88</td>
<td>2.76-5.45</td>
</tr>
<tr>
<td>Rx Drugs</td>
<td>3.30</td>
<td>1.95-5.57</td>
</tr>
<tr>
<td>Alcohol Peer Disapproval</td>
<td>3.70</td>
<td>2.76-4.97</td>
</tr>
<tr>
<td>Depressive Sadness</td>
<td>2.14</td>
<td>1.57-2.91</td>
</tr>
<tr>
<td>Suicidal Thought</td>
<td>2.97</td>
<td>1.96-4.51</td>
</tr>
<tr>
<td>Attend Alcohol Party</td>
<td>3.16</td>
<td>2.28-4.39</td>
</tr>
<tr>
<td>Text for No Adults</td>
<td>4.97</td>
<td>3.75-6.60</td>
</tr>
<tr>
<td>Text to Find Alcohol</td>
<td>5.15</td>
<td>3.78-7.10</td>
</tr>
</tbody>
</table>

Scott Frank MD, MS  
Director, CWRU MPH Program; Director, Shaker Heights Health Department; Principal Investigator, Ohio Research Association for Public Health Improvement
Developmental Consequences of Intimate Partner Violence Exposure

• Three main areas of research
  – Identifying sensitive or critical developmental periods
  – Maternal parenting quality
  – Sibling relationship quality

• Overarching goal
  – Identify protective and risk factors to inform interventions

• Policy Implications
  – Early interventions
  – Strengthen coordination between school and mental health services

Megan Holmes, Ph.D., MSW
mxh540@case.edu
Developmental Consequences of Intimate Partner Violence Exposure

Sleeper Effect of IPV Exposure

Maternal Warmth: A Protective Factor

Megan Holmes, Ph.D., MSW
mxh540@case.edu
CaseCAN: Case Children's Access Now

Targeting an Expanded Workforce to Provide Comprehensive Care for Children on Medicaid: The Case Western Reserve University Children’s Access Now Program

Continuation and Expansion: Behavioral Health Access in the Medical Home

MEDTAPP Healthcare Access Initiative (HCA)
Milton A. Kramer Law Clinic Center

Criminal Justice Clinic
Prof. Judith Lipton
Prof. Carmen Naso

Health Law Clinic
Prof. Laura McNally-Levine
Criminal Justice Clinic
• Represent minors charged with delinquency in Cuyahoga County Juvenile Court.
• Focus on serious felonies and bindover/amenability.

Health Law Clinic
• Represent children with Social Security disability claims, potential wards in guardianship hearings at Probate Court, families in special education disputes with school districts
• Developing a medical-legal partnership with doctors at Rainbow Babies & Children’s Hospital - University Hospital where our work will focus on children’s health.

First Year Curriculum
• Students will participate in Cuyahoga County's 1st Juvenile Safe Surrender program and the Kinship Caregiver Legal Assistance Project.
Faculty Associates Networking Dinner

Faculty Research with Children and Youth

Monday, September 8, 2014
Lisa Huisman Koops, Ph.D.
Department of Music

Areas of Inquiry
Role of parents in early childhood music
Interaction of agency and enjoyment in musical play
Musical play of Gambian children

Photo
Removed
• Findings
  – Enjoyment is important for parents as well as children in musical interactions
  – The family vehicle is an ideal space for musical interaction

• Policy implications
  – Parent–child music classes for at-risk populations
  – Focus on enjoyment in music education training of early childhood caregivers
Pediatric Obesity: Understanding Norms for Development Scale (POUNDS)

Rejected because not generalizable (we were doing primarily healthy data set from research studies for accuracy and small general pop data set.

Did not like reinvention of PI’s inquiries and team was too new.

Now go for community based data sets, we have five publications, and PI is till problem
Modified APGAR Comparative Study

- APGAR written in 1953 when mothers (and therefore fetuses) heavily sedated
- Five assessments of APGAR: Heart rate (>100)
  - Respiratory effort (Good lusty cry)
  - Muscle tone (active movements)
  - Reflex irritability (Vigorous cry)
  - Color (1= body pink, extremities blue’ 2=completely pink)
- Delayed cord clamping gives transfusion to infant that improves color and reduces heart rate (can change APGAR by two points downward)
- Skin to skin care within one minute of birth stops all crying (reduces APGAR by two points), stops movement (Reduces APGAR by one point)
- So, overall score of healthy happy infant at 5 minutes should be 5-7 (resuscitation required). Health professionals MANIPULATE the score according to beliefs.
Skill acquisition and learning
The bilingual mind
Interest

• Interests
  – Parent and family influences on children with disabilities
  – Relationship focused Intervention
    • Children with disabilities, autism, adopted children
    • Effects
      – Cognition, communication, social emotional functioning, parenting psychosocial functioning
  – Models of developmental learning

Jerry Mahoney – MSASS
Projects

• Play Project
  – Autism RCT - Journal of Developmental and Behavioral Pediatrics
  – Maternal Depression, Parenting stress

• Responsive Teaching
  – Turkey
  – Saudi Arabia
  – Croatia
  – Portugal
  – England

• Causal Modeling
  – Responsive Teaching
  – Play Project

Jerry Mahoney – MSASS
Lolita McDavid
4 Main Focus Areas
Projects and Programs

1. Chronic conditions (also CHEC-UPPP and PET)
   - TODAY (NIH)
   - COPTR/IMPACT (NIH)
   - Jump To It! (Mt Sinai Healthcare Fdn)

2. Perinatal/early childhood
   - Maternal-Fetal-Newborn Scholars (Gund Foundation)
   - Advancing Collaborative Genetic Research (NIH)

3. Quality improvement
   - Childhood Excellence Center (CHEC-UPPP) (state of Ohio)
   - Physician Extension Team (Rainbow Care Connection) (CMS/CMMI)

4. Health care delivery systems
   - Pediatric Workforce (CaseCAN) (state of Ohio)
   - BioMedTech (NIH)
   - (Also CHEC-UPPP and PET)
Products

Obesity in Children Families Across Ohio

PEDiATRICS
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Practice-Tailored Facilitation to Improve Pediatric Preventive Care Delivery: A Randomized Trial

Reducing Rehospitalizations in the First Year of Life

The NEW ENGLAND JOURNAL of MEDICINE

A Clinical Trial to Maintain Glycemic Control in Youth with Type 2 Diabetes

TODAY Study Group
Literacy in the Primary Care Clinic

• What can doctors do during “well-child care” to support literacy development?
Screening for Emergent Literacy Problems

- Can we use a very brief screen (5 questions, the ELS) in place of a 20-minute test (Get Ready to Read Revised)?
- Can we do the same, even if the parents have to read the questions themselves?
- Does it work in Columbus, too?
- Does screening at age 4,5 add anything to general developmental screening in the clinic?
- Can we link early identification to effective early intervention?

Questions about Literacy Guidance in Primary Care

- Can we change parent attitudes?
- Can we affect parent behaviors (reading aloud frequency)?
- Can guidance change parent-child behaviors during reading aloud?
- What is literacy guidance, anyway?
- How can we teach it?
Role of Pretend play in Child Development
Sandra Russ

Major Research Questions:
1. Are processes in pretend play (imagination; emotional expression) associated with creativity, coping ability, and other important areas in child development?
2. Can we measure these play processes?
3. Can different play profiles help with diagnosis and treatment planning?
4. Can we develop pretend play intervention modules that enhance processes in pretend play and, in turn, improve areas of functioning.
Major Findings:
• Pretend play is associated with creativity, coping, and well-being in children.
• Longitudinal prediction of creativity over a 4 year period (2 studies)
• Affect in Play Scale has demonstrated reliability and validity in a large number of studies. Separate cognitive and affective factors.
• Promising play intervention modules to foster creativity.
• All summarized in new book. “Pretend Play in Childhood: Foundation of Adult Creativity” 2014, APA BOOKS.
• Current: Coping through play interventions for children with cancer (Swedish Cancer Foundation)

Policy Implications
• Use play assessment to measure creative potential in children.
• Make time for pretend play at home and at school. Hopefully, play modules ready to try in classrooms soon.
Opportunity Neighborhoods for Latino and African American Children

Key Issues:
- How neighborhood conditions influence child outcomes?
- What is the magnitude of these effects?
- What are the mechanisms?

Key Findings:
- Limited effect of social vulnerability (concentrated disadvantage)
- Importance of neighborhood affluence
Key Findings:
- Exposure to neighborhood violence matters
- Importance of property crime rates on outcomes
- Mixed effects associated with violent crime rates
- Number of neighborhood effects are nonlinear

Policy Implications:
- Strategies to reduce exposure to violence
- Well-formulated and targeted assisted housing and urban revitalization programs can yield substantial payoffs by changing the neighborhoods in which these children reside
Major Program Thrusts

- “App” for supporting improved nutrition and physical activity in early learning and care settings
- Community Health Data Dashboard/Open Data Portal
- Novel use of data from wearable activity monitoring devices

Healthy Cleveland, Healthy Cuyahoga

- Dashboard with metrics of health and social determinants
- Adding open data portal
- Partnership with One Community & NEOCANDO
  - Education
  - Economic development
  - Public/civic datasets
Activity Tracking Devices

- Explosive growth
- Expansion of sensor technology
- Link consumer generated data with EHR
- Population health opportunities
- Research opportunities
- Ambition for CWRU: Center of Excellence in Wearable Activity Tracking Technologies
Assessment of Preschoolers: Who Should Be Responsible and What Should They Be Looking For?

Elizabeth J. Short, Ph.D.
Department of Psychological Sciences
Case Western Reserve University

1. Early diagnosis and intervention: essentials for optimizing development

2. Who should be responsible for identification?
   - Parents
   - Teachers
   - Clinicians

3. To what extent does experience and education dictate diagnostic expertise?

4. What are the key components that differentiate preschoolers at risk for atypical development from children not at risk, and how should we assess them?
   - Play
   - Executive Functioning
   - Language
   - Behavior
Preliminary Findings

1. Experts – adopt an atypicality bias, easily recognizing problems in preschoolers even when they don’t exist.
2. Novices adopted a normalcy bias, not recognizing problems in preschoolers.
3. Experience enhanced the classification of all raters, but more so for their ability to classify moderate and severe disabilities (ADHD & ASD).
4. Rater’s qualitative data mirrored behavioral data from the children. That is, raters reported cognitive factors (executive functioning & play) most often in their reasoning for classification.
5. Behavioral factors were helpful in diagnosing, but not in the absence of age and cognitive skills.

Conclusions and Policy Implications

1. Education and experience are critical for development of expertise in diagnosis.
2. Education can compensate for lack of experience and vice versa, but the combination is critical for subtle diagnostic comparisons.
3. Parents, semiprofessionals, and professionals on the front line working with young children need to be alerted to the cognitive and behavioral factors that place children at risk for atypical development.
Thank you for attending!

Faculty Associates Networking Dinner

Faculty Research with Children and Youth

Monday, September 8, 2014