



**YORK UNIVERSITY'S 2nd LILLIAN WRIGHT  
MATERNAL-CHILD INSTITUTE:**

# **FROM LAB TO COMMUNITY BASED RESEARCH**

Organized by Echo Chair in Women's Mental Health Research  
in partnership with the Faculty of Health.

Friday, September 27rd, 2013  
9:00am to 4:30pm  
York University (Keele Campus)  
Room 280N York Lanes

**health**



# Welcome



Dr. Nazilla Khanlou  
Echo Chair in Women's  
Mental Health Research

<for updating> It is with great pleasure that we welcome you to the inaugural York University Lillian Wright Maternal Child Institute. The focus of this year's learning institute is on methodological approaches in maternal child health research. The one-day institute offers a platform to researchers in maternal child health to share their work with others interested in this globally important area of inquiry. Participants in the institute include students from different disciplines, researchers, community members, and health and social services professionals.

In this first year of the learning institute, we welcome five guest speakers, all of whom have expertise in the area of maternal child health research. Our keynote speaker is Christine Kowal, who is a former Lillian Wright Scholarship recipient and currently a Junior Science Officer with the Ontario Health Study. Our other invited speakers are Dr. Nasim Haque (Wellesley Institute), Professor Christine Kurtz Landy (York University), Professor Olive-Wahoush (McMaster University), and Professor Beryl Pilkington (York University).

We wish to acknowledge the financial support of the Lillian Wright Foundation, Echo Chair in Women's Mental Health Research office, and Faculty of Health. We are also grateful to following York University faculty, staff, and students for their generous time and help: Associate Dean Lesley Beagrie, Wajma Soroor, Sheila Jennings, Brett Thompson, Alexis Buettgen, Farah Islam, and Pattie Gagliardi-Ursua.

Finally, we thank you for joining us today as we gather together to exchange research knowledge with each other in maternal child health.

Harvey Skinner  
Dean, Faculty of Health

Nazilla Khanlou  
Academic Lead, Lillian Wright Maternal  
Child Health Scholars Program

# Programme

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Time	Item	Speaker
9:00 - 9:30	Registration Morning refreshments	
9:30 - 9:45	Welcome and Introductions	Dr. Nazilla Khanlou
9:45 - 10:45	Panel 1  Can pain tell us more? Understanding the relationship between early childhood mental health and parent-child immunization behaviours	<where can we place Dr. Chang Su, Dr. Tsrong-Yeh Lee?>  Dr. Rebecca Pillai Riddell
10:45 -11:30	Break out discussions	
11:30–12:00	Student posters	Lauren Campbell PhD Candidate Bramilee Dhayanandhan, Monica O'Neill Jennifer Noseworthy RN, MScN Nicole Racine PhD Candidate
12:00 - 1:00	Lunch with Dean Skinner	Dean Harvey Skinner
1:00 - 2:30	Panel 2  Social Support for Immigrant Mothers of Children with Disabilities  Familial and Professional Support during Pregnancy and Early Motherhood for Women with Pre-Existing Diabetes: Preliminary analysis of a view from the professionals in England and Canada	Dr. Nazilla Khanlou  Dr. Deborah Davidson
2:30 – 2:45	Break	
2:45 - 3:45	Keynote—Lillian Wright Post Doc	<name>
3:45 - 4:00	Wrap up	<Leslie Beagrie?>

# Speakers

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**Deborah Davidson PhD**

Deborah Davidson, Ph.D., is an Assistant Professor of Sociology at York University in Toronto. Her research interests focus on health and life course issues, particularly those at the beginning and end of life. Currently, her research projects include tattooing as memorialization, the use of the Internet for bereavement support, support during high-risk pregnancy, and support needs for immigrant mothers of children with disabilities. Her teaching falls within the areas health, gender, diversity, and qualitative methodology.



**Nazilla Khanlou RN, PhD**

Nazilla Khanlou is *Echo's inaugural Chair in Women's Mental Health Research in the Faculty of Health at York University and an Associate Professor in its School of Nursing*. Professor Khanlou's clinical background is in psychiatric nursing. Her overall program of research is situated in the interdisciplinary field of community-based mental health promotion in general, and mental health promotion among youth and women in multicultural and immigrant-receiving settings in particular. She has received grants from peer-reviewed federal and provincial research funding agencies. Dr. Khanlou is the Co-Director of the Ontario Multicultural Health Applied Research Network (OMHARN). She is founder of the International Network on Youth Integration (INYI), an international network for knowledge exchange and collaboration on youth. She has published articles, books, and reports on immigrant youth and women, and mental health. She is involved in knowledge translation to the public through media.



**Dr. Rebecca Pillai Riddell PhD**

Dr. Pillai Riddell is an associate professor of psychology at York University, a clinician-researcher in Psychiatry Research at the Hospital for Sick Children and adjunct-associate professor in the Department of Psychiatry at the University of Toronto. She directs York University's OUCH Laboratory (Opportunities to Understand Childhood Hurt Lab; [www.yorku.ca/ouchlab](http://www.yorku.ca/ouchlab)) in Toronto, Ontario, Canada. Her main program of research involves understanding caregiver and early child behaviour in the primary care context. Rebecca is a Canadian Institutes of Health Research New Investigator (CIHR) and has also received early career awards from the Ontario Ministry of Research and Innovation (OMRI), Canadian Pain Society, the Canadian Psychological Association and American Psychological Association. Rebecca's work is currently funded by CIHR, OMRI and the Canada Foundation for Innovation.

# Speakers

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**Dr. Chang Su**

<bio to be shortened & edited, awaiting reply>



# Student Presenters

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**Michael Miceli (PhD Candidate)**

**Talk title:** The Bipolar Future: The Surge in Diagnosis and Treatment of Pediatric or Early-Onset Bipolar Disorder

Michael graduated summa cum laude with his B.A., Honours degree in Psychology and a Certificate in Practical Ethics from the Department of Philosophy in 2005 and completed his M.A. degree in Critical Disability Studies in 2007, both from York University. His research interests focus on the ethical and social implications of new reproductive technologies such as prenatal genetic screening for persons with disabilities and women of child-bearing age and the underlying philosophical, political, economic and socio-cultural beliefs that undergird the widespread use of such technology.



**Jennifer Noseworthy RN, MScN**

**Poster title:** A Solitary Journey: Women's Experiences of Perinatal Loss in Labrador

Jennifer completed her MScN degree at York University in June 2013 and is a 2011 Lillian Wright Scholarship recipient. She is a Public Health Nurse in a First Nations community and resides in Happy Valley-Goose Bay, Newfoundland and Labrador. She has previously practiced nursing in obstetrics, diabetes education, and medicine. In addition to her recent research on perinatal loss, she has published and presented original research as an undergraduate nurse on women's experiences of social support in the birth environment.



Monica O'Neill BA Hons, holds a Master of Arts in Forensic Psychology from Carleton University and is currently entering her second year of the Master's program in Clinical-Developmental Psychology. Her research is in the area of pediatric pain and she works under the supervision of Dr. Rebecca Pillai Riddell in the Opportunities to Understand Childhood Hurt (OUCH) Lab. Monica is interested in the maternal factors related to infant pain and pain-related distress. Her Master's thesis looks at the relationship between maternal culture, maternal soothing practices, and infant pain behaviours. For her PhD Dissertation Monica hopes to examine how distress regulation observed over the first year of life, within the immunization setting, predicts later preschool attachment within the maternal-child relationship. Monica is currently a trainee with the Canadian Institutes of Health Research (CIHR) Strategic Training Initiative on Pain in Child Health (PICH), and is pursuing the York University Health Psychology Graduate Diploma Program.

<pending poster presenter bio & pic from Bramilee >



**Nicole Racine (PhD Candidate)**

**Poster title:** Caregiver Sensitivity in the Pain Context and Infant Regulation

Nicole Racine is a third year doctoral student in Clinical Developmental Psychology at York University. She conducts research under the supervision of Dr. Rebecca Pillai Riddell in the Opportunities to Understand Childhood Hurt Laboratory. Her primary research interests include parent-child interactions in distressing contexts and the development of childhood medical fears. Her research is funded by a CIHR Canada Graduate Scholarship. She is student co-chair of the Lillian Wright Maternal Child Health Academy of Scholars.

# Panel 1

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## **Can pain tell us more? Understanding the relationship between early childhood mental health and parent-child immunization behaviours**

**Dr. Rebecca Pillai Riddell**

The architecture of the brain during the formative first five years of life has been clearly linked to a child's ability to regulate stress and, more specifically, regulate negative affect. Negative affect regulation is one's ability to recover from distressing/stressful events and return to homeostasis or pre-negative event state. Negative affect regulation is a key mental health domain that begins to develop during early childhood and is strengthened through sensitive and contingent caregiver interactions. Negative affect regulation has implications for how a child develops biologically, cognitively, academically, and socially. Despite the clear body of literature demonstrating the importance of affect regulation, little work has been done to pragmatically integrate this important variable in primary health care. The immunization context represents a valuable opportunity to integrate mental health into routine early childhood care. The trajectory of how a child modulates distress over an immunization appointment and how a parent supports that regulation provides a novel window into the overall functioning of that dyad. This colloquium will provide an overview of results stemming from the OUCH cohort. The OUCH cohort is the largest cohort in the world specifically focused on understanding caregiver-child interactions within the immunization context and their links to early childhood mental health (n=760). Ongoing work is currently following this cohort during late infancy and at preschool age. A discussion of pain reactivity and regulation development through early childhood in relation to attachment, temperament, cognitive processing, academic readiness, and socioemotional functioning will be presented in order to validate the premise that mental health can be better integrated into primary health care.

### **Discussion Questions:**

1. What type of primary care interventions could be developed to support mothers in building their child's early negative affect regulation skills?
2. Given the known importance of maternal sensitivity to childhood distress, why are the relationships so small within the immunization context?

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**TITLE**  
**Presenter**

<Description>

<who can we place here?>

### **Discussion Questions**

- 1.
- 2.

# Panel 2

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## **Familial and Professional Support during Pregnancy and Early Motherhood for Women with Pre-Existing Diabetes: Preliminary analysis of a view from the professionals in England and Canada**

Presenter: Deborah Davidson, PhD, Department of Sociology, York University, Investigator

### UK Investigators:

Sociologist Gayle Letherby, PhD, Director of the Institute of Health and Community, and Midwife Elizabeth Stenhouse, PhD, Midwifery Research School of Nursing and Midwifery Plymouth University

### Toronto Investigators:

Sociologist Deborah Davidson, PhD, York University, and Social Workers Marjorie Bothwell, MSW, and Joanne Sulman, MSW, Mount Sinai Hospital, Toronto, Department of Social Work

Our international multi-disciplinary collaborative research project, funded by Plymouth University in the UK, explores challenges to pregnancy and early stages of motherhood. In this study we compare how medical professionals in the UK and Canada view the social support needs of pregnant women with pre-existing diabetes in their transition to early motherhood. Questionnaire data has been collected and we are now in the process of analysis. Our preliminary analysis extends findings from earlier research on the topic in two ways. First, we demonstrate how concern for diabetes management overshadows the experience of pregnancy. Second, we show the importance of seeing not only the pregnant woman but also her familial others (partner or mother) as experts.

1. This pilot study is essentially a method of building consensus about the type of approach that might be used to meet development of a large external grant. Please discuss issues, following from our pilot and its findings to date, that we should consider for our larger project.
2. Health care for women with pregestational diabetes in the UK and Canada differs considerably: in the UK high-risk antenatal care teams care for these women, the primary caregivers being midwives; in Canada, obstetricians, often those who specialize in high-risk pregnancies, are the primary caregivers for these women. This difference is ripe for discussion! Please discuss.

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## **Chinese women's experience on maternity healthcare services in Canada**

Tsornng-Yeh Lee, RN, PhD<sup>1</sup>, Associate Professor, School of Nursing, York University  
Christine Kurtz Landy, RN, PhD<sup>2</sup>, Assistant Professor, School of Nursing, York University  
Olive Wahoush, RN, PhD<sup>3</sup>, Associate Professor, School of Nursing, McMaster University  
Nazilla Khanlou, RN, PhD<sup>4</sup>, Associate Professor, School of Nursing, York University  
Yin-Chun Liu, RN, MSN<sup>5</sup>, PhD candidate, National Yang-Ming University  
Chia-Chi Li, RN, MSN<sup>6</sup>, Instructor, School of Nursing, National Defense Medical Center

Maternity health care available in Canada is based on the needs of native born Canadians and often lacks the flexibility to meet the needs of immigrant women. The purpose of this study was to explore immigrant Chinese women's experience in accessing maternity care, the utilization of maternity health services, and the obstacles they perceived in Canada.

The result indicated that immigrant Chinese women preferred same-language-speaking obstetricians for their maternity care. The geographic location of the obstetrician's clinic and long waiting time were two major factors that hindered their access to maternity care. There were multiple ways for them to obtain pregnancy information they wanted. However, qualified healthcare providers' services were needed in order to counterbalance immigrant Chinese women's limited support system.

The results of this study enhance our knowledge and understanding of immigrant Chinese women's experiences in searching for maternity health services. Potential shortages in the health care field for culturally-diverse populations are recognized. Improving access to a linguistically and culturally sensitive maternity care is emphasized and recommended.

<insert 2 discussion questions>



# Poster Abstract

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**Poster Title:** An exploration of interaction patterns among adolescent mothers and their young children: Risk factors for child maltreatment.

**Authors & Affiliations (including email for presenting author):**

Bramilee Dhayanandhan, M.A., Ph.D. (Cand.)  
Clinical Developmental Psychology  
Faculty of Health  
York University  
bramilee@yorku.ca

Yvonne Bohr, Ph.D.  
Clinical Developmental Psychology  
Faculty of Health  
York University

**Background:** Mothers and infants influence each other by providing signals about their needs, feelings, and concerns (Barnard, 1994). The dyad's ability to respond to each other's cues sensitively and appropriately has been shown to impact child development over time (Ainsworth, 1969). For example, infants rely on and interpret caregiver affective cues to gain information not only about the world around them but also to gauge their internal feelings (Hobson, 2007). Thus, mothers who are emotionally available and responsive to their child's needs are more likely to foster secure attachments with their children. Conversely, submissive, unclear or hostile transactions on the part of one member of the interaction can impede the functional adaptation of both members (Barnard, 1994).

**Objectives:** The present study utilized the NCAST observational coding system (Barnard, 1994) to examine interaction patterns and their relationship to child maltreatment risk in a sample of 50 adolescent mothers and their children living below the poverty line.

**Methods:** Participants were 50 adolescent mother-child dyads. The mean age of mothers during pregnancy was 17.4 years, and the mean age of infants was 1.0 years. Participants were asked to engage in a brief interactive teaching task with their infants, which was coded using the NCAST (Barnard, 1994). Participants were also administered the Child Abuse Potential Inventory to examine risk for child maltreatment (Milner, 1990).

**Results:** Results indicated a significant negative correlation between maternal sensitivity ( $r = -.424, p = .001$ ), child responsiveness ( $r = -.444, p = .001$ ) child cue clarity ( $r = -.531, p < .001$ ) and child abuse potential. In a significant regression model [ $R^2 = .599, F(2,47) = 13.18, p < .001$ ] child factors such as cue clarity and responsiveness ( $\beta = -.47; p < .001$ ), and maternal factors such as sensitivity and responsiveness ( $\beta = -.28; p < .05$ ) emerged as protective factors that negatively predicted child abuse potential.

**Discussion and Conclusion:** These findings highlight the utility of observational coding methods such as the NCAST-PCI to increase our understanding of how stable versus impaired interaction patterns can play a role in child abuse potential. Findings also underscore the importance of tailoring interventions for high-risk adolescent mothers and their children in a way that will promote adaptive communication.

**Poster presented previously? If yes, where/ when/ by who?** Poster previously presented at the World Association for Infant Mental Health in Germany (June 2010), by Bramilee Dhayanandhan.

# Poster Abstract

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**Poster Title:** The Relationships between Caregiver Proximal Soothing and Infant Pain

**Authors & Affiliations (including email for presenting author):**

Campbell, Lauren 1; Pillai Riddell, Rebecca 1,3; Garfield, Hartley 2,3; Greenberg, Saul 2,3

1. York University, Toronto, ON, Canada.

2. Hospital for Sick Children, Toronto, ON, Canada.

3. University of Toronto, ON, Canada

Lauren Campbell's email: Lc15@yorku.ca

**Background:**

There is a paucity of research taking infant age into account when examining the relationships between caregiver proximal soothing and infant pain. Moreover, no studies have differentially examined the relationships between proximal soothing and infant pain according to qualitatively different phases of an infant's pain experience (i.e., pain reactivity versus pain regulation).

**Objectives:**

To examine the relationships between proximal soothing and pain reactivity/regulation at four different infant age groups.

**Methods:**

Caregivers and infants were part of a longitudinal cohort and were followed and videotaped during their 2-, 4-, 6-, and 12-month immunizations (n=760). Videotapes were coded for caregiver proximal soothing and infant pain behaviour.

**Results:**

Proximal soothing accounted for little to no variance in pain reactivity or regulation at all four ages ( $R^2 = 0-4\%$ ). Pre-needle distress and pain reactivity accounted for large amounts of variance in pain regulation ( $R^2 = 41-79\%$ ). Exploratory analyses revealed that proximal soothing did not predict infant pain at any subsequent appointments, however, infant pain post needles at 4 months predicted pre-needle distress at 6 months and 12 months as well as pain reactivity at 12 months.

**Discussion and Conclusion:**

Across the first year of life, earlier infant pain behaviour is a stronger predictor of subsequent infant pain behaviour than caregiver proximal soothing. Given the longer-term benefits that have been demonstrated for maintaining proximity during distressing contexts, caregivers are still encouraged to use proximal soothing during infant immunizations.

**Poster presented previously? If yes, where/ when/ by who?**

Yes. At the International Society for Pediatric Pain (ISPP) in Stockholm, Sweden. The presenter was Lauren Campbell

# Paper Presentation Abstract

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**Title:** The Bipolar Future: The Surge in Diagnosis and Treatment of Pediatric or Early-Onset Bipolar Disorder

**Author and Affiliation (including e-mail for presenting author):**

Michael G. Miceli, MA, PhD Candidate  
Critical Disability Studies  
School of Health Policy and Management  
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**Abstract:** This paper presentation explores the rapid surge in the diagnosis and treatment of pediatric or early-onset bipolar disorder whereby American children as young as two years of age are now being diagnosed with this "psychiatric disability" and then treated with atypical (or second generation) antipsychotic medications such as Risperdal, Zyprexa, Seroquel, Abilify, and Geodon. Moreno et al. (2007) found that a diagnosis of pediatric bipolar disorder increased from 20,000 American children aged zero to nineteen in 1994 to about 800,000 American children aged zero to nineteen in 2003, which represents a forty-fold increase in less than ten years. The diagnosis and treatment of pediatric bipolar disorder is contentious primarily because as Healy (2006) has articulated, it is not recognized outside of the United States and that children should not necessarily meet the diagnostic criteria for bipolar disorder per se as certain qualifiers such as excess self-esteem, being talkative and easily distracted are hallmarks of "typical" childhood experiences and not indicative of a psychiatric disability. This problem of applying certain qualifiers to children stems from the fact that most psychiatrists use the diagnostic criteria for an episode of mania from the DSM-IV-TR (2000) to confirm a diagnosis of bipolar disorder, when the diagnostic criteria was intended to only "diagnose" adults. A concern is that the long term consequences of using atypical antipsychotic medications on a young developing child are unknown and could have deleterious effects later in life, especially since such "medications" target the brain which is still developing through childhood and adolescence. An overview of disease mongering and the iatrogenic cause of pediatric bipolar disorder through an ADHD gateway and/or SSRI pathway, as well as the attendant issue of a lack of informed consent will also be addressed.

**References:**

American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders: 4th Edition (Text Revision). Washington, DC: Author.

Healy, D. (2006). The latest mania: Selling bipolar disorder. PLoS Medicine, 3, 441-444.

Moreno, C., Laje, G., Blanco, C., Jiang, H., Schmidt, A. B., & Olfson, M. (2007). National trends in the outpatient diagnosis and treatment of bipolar disorder in youth. Archives of General Psychiatry, 64, 1032-1039.

Previous Presentations: Yes.

1. Psychology Graduate Student's Association (PGSA) 5th Annual Conference: "2010: A New Decade in Psychology" on April 26th, 2010 at York University, Toronto, Ontario.

2. York Institute for Health Research (YIHR) Graduate Student Symposium: "Health at the Intersection" on April 25th, 2012 at York University, Toronto, Ontario.

# Poster Abstract

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**Poster Title:** A Solitary Journey: Women's Experiences of Perinatal Loss in Labrador

**Authors & Affiliations(including e-mail for presenting author):**

Jennifer Noseworthy, MScN BN RN BTh (jennosew@gmail.com)

**Background:** This study explored how women in Labrador experience pregnancy loss at any time before or during birth, or the death of a newborn in the first month of life (Limbo & Kobler, 2010).

**Objectives:** The question asked for this study was: How do women experience perinatal loss in isolated, northern regions such as Labrador?

**Methods:** The research methodology used was interpretive description (Thorne, 2008). Jonas-Simpson's (2011) research-based documentary, *Enduring Love: Transforming Loss*, was used as a tool for participants to reflect on and share their own experiences of perinatal loss in an interview or in a focus group.

**Results:** The findings revealed a central concept, *alone-not alone*, which was woven throughout each of the four themes: a) *silent sorrow-shared sorrow*, b) *isolated-comforted by setting, religion, and culture*, c) *maintaining presence: ritual and memories*, and d) *the pieces don't fit: searching for meaning*.

**Discussion and Conclusion:** Regardless of the support and companionship women received from others, some aspects of grieving perinatal loss must be navigated alone. The concept of being *alone-not alone* permeated the participants' descriptions of their experiences of perinatal loss. In remote and isolated regions, women may be marginalized in their grief due to factors such as lack of supports and resources, reduced accessibility to services, and discomfort and lack of acknowledgement from others of the loss of their baby. It was also recognized, however, that women might find creative ways to navigate through their grief and connect with others who have experienced similar loss. This study helps others better understand how women may experience perinatal loss in Labrador, and builds on current knowledge of perinatal loss—informing the practice of care providers in remote and isolated regions.

**Poster presented previously?** No poster has been presented previously; however, this research study was presented by Jennifer Noseworthy at the Women's Mental Health and Wellbeing Speaker's Series at York University, on June 6, 2013.

# Poster Abstract

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**Poster Title:** Birth Order, Emotional Availability and Pain Behaviours during Routine Immunizations

**Authors & Affiliations (including email for presenting author):**

Monica O'Neill<sup>1</sup>, Nicole Racine<sup>1</sup>, Rebecca Pillai Riddell<sup>1,2,3</sup>, Hartley Garfield<sup>2,3</sup>, Saul Greenberg<sup>2,3</sup>  
York University  
Hospital for Sick Children  
University of Toronto

**Presenting Author Email:** mconeill@yorku.ca

**Background:** Caregiver emotional availability has been linked with infant birth order (Harel et al., 2002). Additionally, evidence suggests that caregivers' emotional availability predicts lower pain behaviours in infants at 12-months of age (Pillai Riddell et al., 2011).

**Objectives:** The present study examined the relationship between birth order and caregiver emotional availability during infants' 12-month routine immunization. The relationship between birth order and infant pain was also examined.

**Methods:** A sub-sample of 545 infants (50.5% female) with immunization data at 12 months was selected from the OUCH Cohort, a longitudinal cohort following infants' routine immunizations over the first year of life. Caregivers' emotional availability was coded using the Emotional Availability Scales Fourth Edition (EAS; Biringen, 2008). Infant pain was coded using the Modified Behavioural Pain Scale (MBPS; Taddio et al., 1995).

**Results:** Compared to parents with older children, first time parents exhibited greater non-intrusiveness,  $F(1, 543) = 4.88, p = .03$ , partial  $\eta^2 = .01$ . Compared to infants with older siblings, first born infants showed greater pain intensity at baseline,  $F(1, 531) = 4.29, p = .04$ , partial  $\eta^2 = .01$ , and 1 minute 15 seconds post-needle,  $F(1, 532) = 6.72, p = .01$ , partial  $\eta^2 = .01$ .

**Discussion and Conclusion:** First time parents showed greater nonintrusiveness during their infants' 12-month immunization compared to non-first time parents. However, children of these parents (first-born infants) showed more intense pain behaviours at baseline and slower pain regulation, than infants with other siblings. Perhaps children who are first-born, owing to having never watched a sibling undergo immunization, need a parent to be more directive with sensitive behaviours in order to recover from the pain of an immunization needle.

**Poster presented previously? If yes, where/ when/ by who?**

Poster presented previously: Stockholm, Sweden/9<sup>th</sup> International Symposium on Pediatric Pain, 2013/  
Monica O'Neill.



# Poster Abstract

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**Poster Title:** Caregiver Sensitivity in the Pain Context and Infant Regulation

**Authors & Affiliations (including email for presenting author):**

Racine, Nicole <sup>1</sup>; O'Neill, Monica Claire<sup>1</sup>; Campbell, Lauren <sup>1</sup>; Pillai Riddell, Rebecca <sup>1</sup>; Garfield, Hartley <sup>2</sup>; Greenberg, Saul

1. York University, Toronto, ON, Canada.

2. Hospital for Sick Children, Toronto, ON, Canada.

**Background:** Caregiver sensitivity is hypothesized to be an important for the development of infant emotion regulation.

**Objectives:** The present study aimed to identify caregiver sensitivity during routine immunizations over the first year of life as a predictor for later infant regulation.

**Methods:** A sub-sample of 130 infants (56% male) who had regulation data at 14 months was selected from the OUCH cohort, an ongoing longitudinal cohort that follows healthy caregiver-infant dyads during routine immunization over the first year of life. Caregiver sensitivity and infant pain were assessed at 2-, 4-, 6-, and 12-months of age. Caregiver sensitivity was coded from video footage using the Infancy/Early Childhood Version of the Emotional Availability Scales Fourth Edition (EAS; Biringen, 2008). Infant pain regulation was coded using the Modified Behavioural Pain Scale (MBPS; Taddio et al., 1995). Infant regulation at 14 months of age was operationalized as the Falling Reactivity subscale of the Infant Behavior Questionnaire-Revised (IBQ-R; Gartstein & Rothbart, 2003).

**Results:** Caregiver sensitivity to acute pain at 12-months positively predicted subsequent infant regulation ( $r = .22$ ,  $p < .05$ ). Caregiver sensitivity at 12-months predicted parent report of infant regulation at 14-months after controlling for infant gender, age, and the objective measure of infant pain regulation at 12-months ( $B = .02$ ,  $B^* = .21$ ,  $p < .05$ ).

**Discussion and Conclusion:** Caregiver sensitivity at 12-months predicted higher ratings of optimal infant regulation at 14-months. Given evidence that early caregiver sensitivity predicts later caregiver sensitivity (Pillai Riddell et al., 2011), caregiver sensitivity at 2-, 4-, and 6-months may indirectly influence infant regulation at 14-months. Accordingly, caregiver sensitivity across the first year of life is important in the development of infant distress regulation as early as 14-months of age.

Poster presented previously? If yes, where/ when/ by who?

Poster previously presented at the International Symposium for Pediatric Pain in Stockholm, Sweden.

## Notes

## Notes

## Notes

LILLIAN WRIGHT MATERNAL-CHILD INSTITUTE  
SEPTEMBER 27, 2013

Organized by Echo Chair in  
Women's Mental Health Research  
in partnership with the Faculty of Health

York University (Keele Campus)  
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