



THE INTERNATIONAL  
WOMEN AND CHILDREN'S  
HEALTH CONFERENCE 2018

CHANGING FACES: THE  
EVOLUTION OF THE FEMALE  
IDENTITY

# IWCH 2018

## Conference Proceedings

20th Annual International Women's and Children's Conference

November 24, 2018

David Braley Health Sciences Centre





# About IWCH

The International Women's and Children's Health Conference is an annual one-day conference designed for students, faculty, and community members who are passionate about exploring the many facets of women's and children's health. This year, our conference theme is "Changing Faces: The Evolution of the Female Identity".

Our goal is not only to enlighten learners about the progress made at addressing women's and children's health on a local and international level, but also to inspire learners about how we can continue to make advancements in the field.

This year's conference will be held at the David Braley Health Sciences Centre (100 Main Street West) at McMaster University in Hamilton.





# A Message From the Chairs

We are very honoured and excited to be this year's Chairs for the 2018 IWCH Conference. As individuals, we come from various academic backgrounds and specializations, but share the same inextinguishable desire to improve women's and children's health around the globe. Our theme this year is titled "Changing Faces: Evolution of the Female Identity". The goal of this theme is not only to enlighten learners about the progress that the world has made at addressing women's and children's health through time and across cultures, but to also inspire learners about how the female identity has evolved and established a sense of resilience in the face of challenges. We encourage you to join us at this year's conference to learn more about women's or children's health issues, or to get involved with existing organizations that have taken lead in this vast field. Your opinions and ideas are valuable in translating today's empirical knowledge to real life scenarios. We look forward to meeting you on **Saturday, November 24th** at the David Braley Health Sciences Centre.

Sincerely,

IWCH Chairs 2018



Susan Dong



Anisha Dubey



Zeba Khoja





# Executive Committee



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Leela Raj



Erica Sacoransky



Hana Brath

Research/Workshop Directors

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# Schedule

8:30 - 9:00 AM	<b>Registration and Breakfast</b> Registration will take place in the 1st floor main foyer, breakfast will be served outside of the auditorium on the 2nd floor
9:00 -10:00 AM	<b>Opening Remarks</b> Dr. Beverley Chalmers, <i>DSc (Med), PhD</i> Auditorium
10:00 -11:40 PM	<b>Concurrent Seminars</b> RM 2035, RM 2036, Auditorium
11:40 -12:10 PM	<b>CBO Fair</b> Back Hallway
12:10 -12:50 PM	<b>Lunch</b> Atrium
12:50 - 2:00 PM	<b>Concurrent Workshops</b> RM 2035, RM 2036, Auditorium
2:00 - 3:00 PM	<b>Poster Presentations</b> Atrium
3:00 - 4:00 PM	<b>Closing Remarks</b> Dr. Zulfiqar A. Bhutta, <i>PhD, MBBS, FRCPCH, FAAP</i> Auditorium

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# Keynote Speakers



**Dr. Beverley Chalmers** has over 300 publications and has given over 460 conference presentations globally. Her book, *'Birth, Sex and Abuse: Women's Voices Under Nazi Rule'* achieved 12 book awards. She undertook over 140 perinatal health promotion activities in 25 countries for WHO, UNICEF and other agencies. She conducted large scale surveys of women's experiences of perinatal care in Canada, South Africa, Russia, Moldova, Azerbaijan and Lithuania. She facilitated the PROBIT Trial that impacted global infant feeding standards. She was the Co-Chair of the PHAC Maternity Experiences Study Group and is on the Overview Committee for the revision of the PHAC National Guidelines for Canadian perinatal health. She is the lead author on Chapter 1 that outlines the Principles and Philosophy underlying perinatal care in Canada. Her book *'Family-centred Perinatal Care'* (Cambridge University Press, 2017) integrates her lifetime's contributions to the field of international perinatal health.

Dr. Chalmers will be speak to women's experiences of giving birth in difficult situations globally and in Canada. She will also touch upon the overmedicalization of birth giving. The title of her talk will be: "Changing Women's Worlds: A Taste of Multicultural, Interdisciplinary, Global, Perinatal Health Promotion".



**Dr. Zulfiqar A. Bhutta** is the Robert Harding Inaugural Chair in Global Child Health at the Hospital for Sick Children, Toronto, Co-Director of the SickKids Centre for Global Child Health and the Founding Director of the Centre of Excellence in Women and Child Health, at the Aga Khan University. Dr. Bhutta was a member of the Independent Expert Review Group (iERG) appointed by the UN Secretary General for monitoring global progress in maternal and child health MDGs from 2011-2015. He is the Co-Chair of the Global Countdown for 2015 and 2030 Initiatives from 2006-2017, and the co-Chair of the Maternal and Child Health oversight committee of World Health Organization (WHO) Eastern Mediterranean Region (EMRO). Dr. Bhutta is one of the most highly cited academics in global health. In particular his work with community health workers and outreach services has influenced

integrated maternal and newborn outreach programs for marginalized populations all over the world.

Dr. Bhutta will give the closing remark on the issue of Maternal and Child Health in the context of the Sustainable Development Goals with a focus on empowerment and gender equity.

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# Seminars



**Dr. Laurie Elit**

**Topic:** Global Health (The changing face of cancer in the global context)

**Bio:** Dr. Laurie Elit is the division head of gynecologic oncology at the Juravinski Cancer Centre and Hospital. She is a full professor in the Dept of Obstetrics and Gynecology at McMaster University. She has served as both educator, clinician and scientist in numerous low resource settings such as Papua New Guinea, Cameroon, Kenya, Mongolia, Guyana to name a few. She is part of the faculty for MacGobus, on the leadership team for MacGlobal and a member of the research team for Humanitarian Health Ethics – all McMaster initiatives.



**Chika Oriuwa**

**Topic:** Women in Leadership

**Bio:** Chika Stacy Oriuwa is a third-year medical student at the University of Toronto (U of T) completing her MD/MSc with a concentration in System Leadership and Innovation. As a professional spoken word artist, she has worked under the Hamilton Youth Poets, and earned her place as a national slam poetry finalist twice. She has a keen interest in healthcare reform pertaining to the intersections of race and gender within medicine. Her resolve has compelled her to remain proactive in the mentorship of youth in minority communities. For these reasons she enjoyed her roles as

co-president of the U of T Black Medical Students Association, co-founder of the Black Interprofessional Students Association (BIPSA), and co-director of a non-profit youth leadership organization. She is currently an ambassador for the Black Students Application Program at U of T's Faculty of Medicine, and sits on the External Implementation Steering Committee to the Minister of Child and Youth Services assisting with the Ontario Black Youth Action Plan. Her seminar will focus on her experiences a black woman in medicine, and how she became empowered through using her narrative of being the only Black medical student in her class to further empower others and push for diversity in medical education.

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### Dr. Suzanne Sicchia

**Topic:** Equity and access to medical abortion

**Bio:** Suzanne Sicchia is an Assistant Professor in the Interdisciplinary Centre for Health & Society (ICHS) and the Dalla Lana School of Public Health (DLSPH), University of Toronto. She completed her doctorate in Medical Science, a Master of Science in social theory and health, and a Master of Health Science in health promotion, at the University of Toronto. Before joining the ICHS and DLSPH, Professor Sicchia worked as a Research Associate in the Global Health and the Violence and Health units of the

former Centre for Research in Women's Health, then a WHO/PAHO Collaborative Centre in Women's Health. Her research and teaching interests focus on women's health, critical social theory, public health, and global health governance. Suzanne's research assistants have played a pivotal role in the current research she will be presenting on.

## Workshops



### Karen B.K. Chan

**Topic:** Real Skills for Consent: Building rejection resilience

**Bio:** Karen B. K. Chan is a sex and emotional literacy educator in Toronto, Canada, with 20+ years of experience. BK's favourite ways to learn and teach are through stories, metaphors, diagrams, and things that make people laugh. Above all, BK is dedicated to having difficult conversations that are real, transformative, and kind. You can find her and her work at [FluidExchange.org](http://FluidExchange.org)

#### Workshop Description:

By now, many people can tell you what consent is and what it isn't. However, *knowing* and *actualizing* are different stories. For one, the threat of rejection, humiliation, and failure all hover over every decision to "ask first". By gender socialization, schooling and professional training, and the ease that technologies promise, most people nowadays are terrible at facing pain and uncertainty. Every time you ask for or seek consent, rejection is a possibility. So, to really support someone to practice sexual consent means to support their tolerance of that possibility. Without resilience in the face of that kind of pain, we inadvertently leave them to their own devices in the hardest moments of consent practice. In this interactive workshop, you will try out



some hands-on exercises that can facilitate rejection resilience, and learn a theoretical framework that can help you explain it to someone else or incorporate it into your work.



### Crickett Wilder

**Topic:** Bystander Intervention Workshop

**Bio:** Crickett Wilder is an intersectional feminist who has been working in the gender justice movement for over fifteen years and proudly works at SACHA as their Public Educator. She is passionate about experiential education and approaching social change work with both a sense of urgency as well as a sense of humour. In response to the Ghomeshi verdict, Crickett helped to create the #WeBelieveSurvivors campaign. Crickett brings her

experience as a scientist, tall ship sailor, environmental educator, baker, migrant labour advocate, shelter worker, dog sledder, farm hand, and roller derby skater to her work as an educator.

#### Workshop Description:

It's normal to freeze or be confused about how to act when we see toxic words and sketchy behaviours. Folks in the participatory workshop will learn skills to interrupt behaviours that can lead to sexual assault. Topics to be covered include: sexual assault & consent law, misconceptions about sexual assault, bystander intervention skills (what keeps folks from intervening, how we can intervene creatively and safely), and community resources for survivors and allies.

### Dr. Robin Mason and Amy Clare

**Topic:** The Evolution of Health Research: Tools for Sex & Gender Integration



**Bios:** Robin Mason is a scientist in the Violence and Health research program at Women's College Hospital, Women's College Research Institute and an Assistant Professor at the Dalla Lana School of Public Health with a cross-appointment to the Department of Psychiatry at the University of Toronto. She is also the Scientific Lead for Women's Xchange, a research

knowledge and exchange centre focused on supporting and disseminating women's health research across the province of Ontario and ensuring the integration of sex and gender in all health research.

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Amy Clare is a medical anthropologist and project lead for Women's Xchange, at Women's College Research Institute. Previously, Amy had been living in Germany where she completed her Master's degree at Heidelberg University. Her thesis focused on a transnational feminist critique of the international human egg trade. She is passionate about the necessity to explore health more broadly by considering socio-cultural dimensions, especially gender.

**Workshop Description:**

During this workshop, we will address the importance of sex and gender integration in health research and health care settings. We will explore considerations of a sex and gender lens through interactive activities to assist participants develop critical thinking skills about these concepts. Women's Xchange will provide tools to aid with the practical application of sex and gender in health research and key considerations to keep in mind moving forward as health research evolves.





# Abstracts

## **Quality of Life Outcomes in a Cohort of Women undergoing Surgical Oophorectomy for the Treatment of Medical Oophorectomy-Responsive Chronic Pelvic Pain**

*Angela Li, Dr. Stephen Bates*

**Study Objective:** To determine the long-term post-operative impact of surgical oophorectomy on pain severity and quality of life (QOL) in women with chronic pelvic pain (CPP) responsive to medical oophorectomy pre-operatively.

**Design:** Survey-based retrospective case-series.

**Setting:** Academic-affiliated community hospital.

**Patients:** Eligible women were identified from the electronic medical records of a community gynecologist. For inclusion, women with CPP must have had significant pain score improvement from leuprolide treatment and have subsequently undergone surgical oophorectomy to treat this pain. Eligible women were telephone-surveyed using a modified version of the validated Endometriosis Health Profile-30 QOL questionnaire. A five-point Likert scale was used to score both pain severity and QOL; 1) prior to leuprolide, 2) following leuprolide but prior to surgery and 3) following surgery.

**Intervention:** Leuprolide therapy of at least three months duration followed by surgical oophorectomy +/- total hysterectomy. All patients were encouraged to use estrogen add-back therapy during leuprolide treatment and after oophorectomy.

**Measurements and Main Results:** A total of 46 eligible patients were identified for the period of 2013-2017. The mean age of patients was 42.5. The mean interval since surgery was 23.4 months. Mean pre-leuprolide pain severity score was 4.58 versus 1.32 post-surgery ( $p < 0.001$ ). Mean QOL scores pre-leuprolide versus post-surgery (greater scores correspond to poorer QOL) were, for general functioning, 3.87 versus 1.19 ( $p < 0.001$ ), exercise/leisure 3.87 versus 1.23 ( $p < 0.001$ ), sleep 3.64 versus 1.09 ( $p < 0.001$ ), and sexual intercourse 4.0 versus 1.69 ( $p < 0.001$ ), respectively.

**Conclusion:** In women with CPP, treatment of medical oophorectomy-responsive CPP with surgical oophorectomy leads to a significant long-term reduction in pain severity and a marked improvement in all QOL domains assessed. Gynecologists can be assured that women with leuprolide-responsive CPP treated with surgical oophorectomy will have a sustained and significant improvement in clinical outcomes after surgery.

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## Exploring the role of e-mental health services in Canadian Mental Health Care: A Review

*Ritika Arora, Shreya Jain*

**Abstract:** Barriers to conventional treatments for mental health concerns in Canada posit the emergence of information and communications technology (ICT) as a means of providing mental health care; this is widely referred to as e-mental health care. Such platforms currently provide a myriad of mental health services in four broad categories: information dissemination, screening and assessment, intervention and peer support. Coupled with further research, careful consideration of e-mental health models in other countries and current barriers can be used to refine pre-existing e-therapy approaches.





## What Women Want: A Qualitative Assessment of Reproductive Health in Uganda

*Sarah Peters*

**Background:** Women living in Uganda face barriers to accessing consistent, high-quality reproductive healthcare services. The infant and maternal mortality rates in Uganda stand within the highest 20 and 40 worldwide, respectively. Two-thirds of married Ugandan women do not employ a method of contraception, and more than half of pregnancies are unintended.

**Methods:** Wakiso District, Uganda, is home to nearly one million women. To assess the quality of reproductive healthcare delivery in this region, 41 women between the ages of 14 and 80 were interviewed about their experiences utilizing local healthcare. With the aid of a translator, responses were coded and sorted into three categories: Resources; Male Involvement; and Healthcare Delivery. These discrete categories were further classified into more specific complaints.

**Results:** More than half of respondents reported a need for more resources; specifically, basic supplies (water, beds, plumbing) and medical supplies (sutures, gloves, medications). Over one-third of respondents reported a need for improved healthcare delivery, including more empathetic care, health education, and informed consent. 19% of women felt that their experiences would be improved by receiving more care, support, and cooperation from their male partners during pregnancy, family planning, and family care.

**Conclusions:** Women living in Wakiso District, Uganda, have several suggestions for improvement of local reproductive and gynecological healthcare, including improved access to services and resources, responsible and patient-centered care, and respect and support from their male partners. Further investigations should focus on understanding the complex intersection of healthcare funding, family structure, and cultural context in order to provide a framework for tangible improvement.





## Health Care and Reconciliation in the Post-Genocide Setting of Rwanda

*Carol Scott*

**Abstract:** The paper analyzes the state of health care for people with physical and mental disabilities in the post-genocide state of Rwanda, located in West Africa. During the 1994 genocide, which lasted one hundred days, a majority of the nation's doctors, nurses, and other health care professionals were murdered and at least a quarter of the populace developed either physical injuries or mental illnesses such as depression or Post-Traumatic Stress Disorder (PTSD), with populations, such as orphans, reporting much higher rates. While the Kagame administration that came to power after the genocide has made reconciliation a goal, the paper finds that major service gaps exist in the healthcare system that prevents many victims from fully participating in the process of recovery. As some studies indicate that symptoms of disabilities, such as PTSD, affect the successor generation as well as parent generation, this presents a major issue for a country that still suffers from collective trauma.





## Identifying Novel Therapies for Endometriosis - The Effect of Melatonin on Endometrial Epithelial Cell Proliferation

*Christie Tan, Jacqueline Lim*

**Abstract:** Endometriosis is a debilitating disease that affects 10-15% of women at reproductive age, characterized by growth of endometrial epithelium and stromal cells outside the uterine cavity. The condition is believed to be estrogen-dependent; the growth of lesions depend on the proliferation of endometrial cells due to increased synthesis of estrogen. Melatonin, a hormone involved in the maintenance of circadian rhythm, may be effective as a treatment option. Recent results revealed expression of melatonin receptors, MR1 and MR2, in endometrial epithelial cells. There is also evidence that melatonin can reduce the size of lesions by suppressing cell proliferation. Additionally, a clinical study has shown that melatonin is effective for reducing pelvic pain, a characteristic symptom of endometriosis. Melatonin and melatonin receptor agonists thus show promise as potential therapies for endometriosis. An investigation is being conducted to study the effects of melatonin on human endometrium epithelial carcinoma cell (RL95-2) proliferation *in vitro*. Cells are treated and incubated with varying concentrations of melatonin ( $10^{-10}$ ,  $10^{-9}$ ,  $10^{-8}$ ,  $10^{-7}$ , and  $10^{-6}$  M) and estradiol ( $10^{-9}$  M) for 24 and 48 hours. Cell viability is measured using a colorimetric assay (MTT). Preliminary results indicate that melatonin alone had no effect on proliferation. In the presence of estradiol, however, melatonin treatment attenuated proliferation. Future avenues of research involve studying the effect of the same treatment using other endometrial epithelial cell lines and quantifying the effects of melatonin on cytokines thought to be important in endometrial cell proliferation.



## Mapping the Contextual Factors Influencing Policy Development for Reducing Maternal Mortality in sub-Saharan Africa: An exploratory case study

*Suman Virdee, Kaelan A. Moat*

**Abstract:** Maternal and child health (MNCH) has improved substantially worldwide from the onset of the Millennium Development Goals (MDGs). However, sub-Saharan Africa has lower levels of MNCH care than in any other region in the world and performs worse on health indicators for maternal mortality, a sensitive indicator of health systems strength. The scope of this explanatory cross-comparative review was to map the contextual factors of the health and political systems that have influenced the policy development to improve the maternal mortality ratio (MMR) in two English-speaking sub-Saharan African countries, one weak performer and one stronger performer in reducing maternal mortality since the onset of the MDGs. Comparing Sierra Leone as the poor performer and Rwanda as the high performer, academic and grey literature including governmental and intergovernmental policy documents were reviewed and analyzed using the health systems framework and political systems framework. Therefore, the evolution of maternal healthcare in both countries was analyzed in the context of key policy developments congruently influencing the countries' health systems arrangements. This case study uncovered the major ideological and contextual factors that may explain the observed difference in performance between Rwanda and Sierra Leone in reducing their national maternal mortality ratios. Moving forward, this type of tailored analysis may aid policy development for surrounding countries in the region to create systemic improvement in reducing maternal deaths.



## **Behavioural interventions addressing verbal impairment in children with autism**

*Afreen Ahmad, Sanna Huda, Imaan Kherani, Zeba Khoja, Jasmine Nanji*

**Introduction:** This paper aims to provide an overview of current research in behavioural interventions addressing verbal impairment in children with autism. The studies are evaluated based on methodological quality and the validity of the data collected.

**Methods:** Studies examining behavioural interventions for children with autism were selected from a number of databases, namely: Ovid, PsychINFO, and Embase. Multiple filtration rounds were conducted to ensure that papers met the inclusion criteria, followed the DSM V autism definition, and met the methodological quality standards.

**Results:** A CONSORT style observational longitudinal checklist was used to evaluate the methodological quality of the studies. Criteria pertaining to study designs were more commonly addressed than those focusing on internal validity.

**Discussion:** Analysis of the literature subsequent to the year 2000 demonstrated an emerging prevalence of behavioural therapies focused on remediating verbal impairment in children diagnosed with autism. Common sources of error amongst all papers included in the literature review were discussed in terms of impact on validity and reliability. Finally, the discussion consolidates the future directives noted in all papers to design and discuss trajectories for further research.

**Conclusion:** Papers often neglected to include essential quantitative information that affected their validity. Inclusion of control groups and appropriate sample sizes should be investigated and future directives of this research should include diverse ethnicities within the study population and socioeconomic equality.

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## **The Built Environment and Design Lessons (BEDLESS) study: Exploring the impact of the built environment at the Markham Stouffville Hospital Alongside Midwifery Unit (MSH-AMU)**

*Guarna, G., Cameron, C., Ahmed, R., Hutton, E., Li, J., Darling, L., and Murray-Davis, B*

**Background:** Research has shown that the birth environment can influence birth outcomes. Evidence demonstrates that allocation to alternative birth settings increased the likelihood of SVD, breastfeeding at 6-8 weeks, no intrapartum pain medication, and positive views of care. It also decreased likelihood of epidural anaesthesia, oxytocin augmentation, instrumental vaginal birth, and episiotomy. There are physiological reasons why safe, comfortable environments can increase positive outcomes. Unfamiliar environments can create feelings of anxiety, tension, and fear - increasing catecholamine release, impeding oxytocin release, and therefore slowing the progress of labour. Conversely, environments that provide a sense of security promote normal physiological labour and reduce the need for intervention. Evidence-based guides to designing birth environments have been published, though there is little evidence within the Canadian context.

The MSH-AMU opened in July 2018 to provide an alternative model of care by employing an on-site hospitalist midwife 24/7 for intrapartum care. It is the first of its kind in Canada and the design was informed by existing evidence on the effects of built environment on birth outcomes.

**Methods:** The purpose of this study is to assess the impact of the built environment of the MSH-AMU using a mixed-methods epidemiologic approach. Data will be obtained through the use of the BUDSET tool, participant observation, semi-structured interviews, and a retrospective cohort study. The findings of this research will be important for the community of clients and health care providers at MSH, and more broadly in Ontario where stakeholders advocate for safe and effective birth spaces.





## Undergraduate Students' Attitude-Behaviour Consistencies towards Rape Myths

*Rachel Cheung*

**Abstract:** This study explored undergraduate students' attitude-behaviour consistencies towards rape myths, along with the factors that influence any attitude-behaviour inconsistencies. Participants were six undergraduate students enrolled at McMaster University. An edited version of the updated Illinois Rape Myth Acceptance Scale (IRMA) measured students' attitudes, while students' behaviours were measured through responses to vignettes describing scenarios of sexual assault in an interview. Majority of participants demonstrated negative attitude-behaviour inconsistencies (disapproved rape myths on survey but supported rape myths in scenarios) towards myths in the It wasn't really rape subscale, with explanations that overlapped with myths in the She asked for it subscale. Participants moderately supported myths in the He didn't mean to subscale, but strongly disapproved these myths in the interview, indicating positive inconsistencies. Both positive and negative inconsistencies for myths in the She Lied subscale were demonstrated. Factors influencing these inconsistencies include the abuser-survivor's relationship, use of alcohol, survivors' state of mind, stigmatization of mental illness and sexist stereotypes. Results suggests that self-reported measures of attitudes are unreliable predictors of behaviours because different situational and social features can overlap or become salient enough to either change opinions or cause multiple attitudes and behavioural responses towards a single incident of rape. Findings can be applied to rape-prevention programming on campuses as discussions about the interplay of various factors in situations of rape and influence of socio-cultural contexts on beliefs about sexual assault can be more effective in deconstructing rape myths rather than simply discussing rape myths in a one-dimensional manner.



## The Healthcare Experiences of Women with Substance Use Disorders in the Perinatal Period: A Project Proposal

*Erica Sacoransky & Franciska Shaw*

**Abstract:** Substance use disorder (SUD) during pregnancy is a significant health concern among Canadian women. The use of substances during pregnancy can lead to profound consequences for both the mother and the unborn child such as miscarriage, postpartum hemorrhage, and neonatal abstinence syndrome. Health care models to support women with SUDs have been proposed, however these women often face stigma or healthcare provider inaction when seeking healthcare services.

This project aims to illuminate common themes based on the subjective experiences of women with SUDs during the perinatal period in order to formulate recommendations for healthcare interventions. The three main areas of interest are: barriers in the healthcare system, gaps in healthcare delivery, and the role of healthcare professionals.

Women ( $\geq 18$  years of age) who were addicted to substances during the perinatal period (20th week of gestation to 4 weeks after birth) in Ontario will be interviewed via a retrospective cohort study over three months. Interviews will be conducted in a secure location or via a secure video conferencing website (zoom). Women will be offered additional emotional support if they require it. Common experiences will be identified through descriptive thematic analysis.





## IGF-1 AND IGF-1 Receptor In Human Idiopathic Autism

*Milena Cioana, Bernadeta Michalski, and Margaret Fahnstock*

**Abstract:** Autism Spectrum Disorder (ASD) affects 1-2% of children worldwide, placing a significant burden on families and the healthcare system. ASD stems from defects in the establishment and maintenance of functional neuronal networks due to synaptic/spine dysfunction. The potent effects of IGF-1 on synaptic function, maintenance, and plasticity make it a potential target for treating ASD. This polypeptide hormone has proven to have beneficial effects in treating related developmental disorders like Rett Syndrome, and its efficacy in ASD is currently being tested in a pilot treatment study. IGF-1 binds to its receptor (IGF-1R) in neurons and activates mitogen-activated protein kinase (MAPK) and PI3K/Akt signaling to produce biological effects on spine function. The PI3K/Akt pathway is down-regulated in idiopathic autism and is thus believed to play a role in the disorder. Although an imbalance in BDNF and TrkB protein isoforms, which activate the PI3K/Akt pathway, has been shown in human idiopathic autism, it is possible that the pathway is also mediated by IGF-1 and its receptor. The present study explored whether IGF-1 and IGF-1R are down-regulated in human idiopathic autism. RNA and protein were extracted from post-mortem human fusiform gyrus tissue of normal controls and subjects with idiopathic autism, and qRT-PCR, ELISA and Western blots were performed. There were no significant differences between idiopathic autism and control groups, suggesting that although IGF-1 may be useful for ASD treatment, IGF-1 and IGF-1R are not implicated in the pathogenesis of autism.



## Improving Family Planning & Reproductive Care Outcomes For Women in Pakistan

*Abdullah Haroon, Karyn Kaufman, Eileen K Hutton*

**Abstract:** Four million unintended pregnancies occur annually in Pakistan; 25% end in induced abortion, many are clandestine. Unsafe abortion accounts for 12% of maternal deaths. Reasons behind the high number of abortions include a low contraceptive prevalence rate (41%) and a high unmet need for family planning (20%).

Midlevel providers of reproductive care, including midwives, often have limited training about contraceptive methods, do not recognize and treat abortion complications and may have negative attitudes towards abortion. To address this situation, an interactive eBook is being developed. This knowledge translation project is a collaboration between McMaster University, and the National University of Medical Sciences (Pakistan) and is funded by Grand Challenges Canada. It will adapt evidence-based materials, from the SOGC, on abortion, post-abortion care, contraceptive methods and counseling approaches and will present them in a culturally-sensitive manner. This eBook will be written in English and Urdu and will contain audiovisual features and integrated self-testing.

Upon completion, the eBook will be tested at a midwifery school and a continuing education workshop at two geographic sites in Pakistan. It will be evaluated for effectiveness with the intended audiences using quantitative and qualitative approaches to determine the impact on knowledge, attitudes and actual practice. These evaluations will help modify materials for future editions of the eBook. The overall goal is to enhance midwifery education and practice using a modern pedagogical tool and to ultimately improve the sexual and reproductive health of women in Pakistan.



## Understanding the Role of Sex in Hospital Admission Delay Among Orthopaedic Patients Across 17 Low- and Middle-Income Countries

*Panthea Pouramin, Chuan Silvia Li, Sheila Sprague, Jason W. Busse, Mohit Bhandari*

**Background:** Injuries are a top ten leading cause of death globally, and account for over 5 million fatalities. In addition to mortality, musculoskeletal injuries (e.g. fractures) lead to long-term disability and exacerbate poverty, especially in low- and middle-income countries (LMICs). Women in LMICs possess reduced agency to make healthcare decisions and wait longer to receive treatment. We hypothesized that women experienced greater delays in hospital admission for musculoskeletal injuries.

**Primary Objective:** Analyzing sex differences in the time to hospital admission following a musculoskeletal injury.

**Methods:** Using data collected from the International Orthopaedic Multicentre Study (INORMUS), an observational study, we analyzed 27,000 musculoskeletal injury patients from 17 LMICs across Asia, Africa, and Latin America. Data was collected using a case report form covering demographics, pre-operative patient, and injury characteristics.

**Results:** We identified women were at greater odds of being delayed by 24 hours or more in reaching the hospital (OR 1.349 [1.274, 1.428],  $p < 0.00001$ ), corresponding to a delay of 0.6 days (2.2 days men vs. 2.8 days women,  $p < 0.00001$ ). However, in logistic regression analysis, sex did not predict delay (OR 0.965 [0.9, 1.035],  $p=0.32$ ). Injury characteristics (e.g. open fractures) were significant predictors of non-delay (high grade open fracture: OR: 0.441 [0.371, 0.524],  $p<0.00001$ ). Delayed women disproportionately reported believing their injuries would heal without treatment (18.5% men vs. 33% women,  $p<0.00001$ ).

**Conclusion:** We conclude that sex did not predict delay, rather injury characteristics which were predominant within women, increased the odds of hospital admission delay.





## **Challenges in mental health care services: Intergenerational conflicts in immigrant and refugee families**

*Aastha Gulati, Hunster Yang, Ramzan Rana, Lloy Wylie*

**Abstract:** With an increasing number of immigrant and refugee populations settling in Canada, various challenges for those working in the mental health care system have emerged. Newcomers of all ages arrive with complex and nuanced mental health histories, traumas, and strenuous migration journeys. Therefore, the resettlement process comes with a multitude of challenges in respect to accessing adequate mental health care services. Research has shown that these barriers in turn have a distinctive impact on the mental health and wellness of children and families. This study explores the factors that influence the intergenerational challenges among immigrant and refugee populations, and how to address these issues through routine practices for mental health care service providers.

The study was part of a larger research project on immigrant and refugee health led by Lloy Wylie, PhD, Western University. This investigation used semi-structured interviews and focus groups with mental health care providers working in London, Ontario. The findings reveal key elements that lead to intergenerational conflicts in mental health care within immigrant and refugee families. In particular, the experiences in cultural conflict, lack of communication between family members, and the stigma surrounding mental health notably influence the intergenerational challenges that newcomer families face. The results suggest the necessity of addressing mental health issues that arise from intergenerational conflicts through the implementation of various methods, such as using a family-based approach practice. The study merits further research for developing strategies in practice and policy to better support immigrant and refugee families in mental health care.



## **Infant and maternal outcomes in women who experience imprisonment in Ontario, Canada: A retrospective cohort study**

*Alison Carter Ramirez, Jessica Liauw, Dustin Costescu, Laura Holder, Hong Lu, Fiona G. Kouyoumdjian*

**Background:** We lack data on obstetrical outcomes for women who experience imprisonment in Canada. We aimed to determine the prevalence of adverse maternal and infant outcomes for this population and to compare these data with the general population.

**Methods:** We linked correctional and health data for women released from provincial prison in Ontario in 2010. We defined three exposure groups for deliveries between 2005 and 2015: deliveries to women in prison during pregnancy, “prison pregnancies,” deliveries to women who had been in prison but not while pregnant, “prison controls,” and deliveries to the general population, “general population controls.” We calculated the prevalence of primary outcomes: preterm birth, low birth weight, and small for gestational age. We used generalized estimating equations to compare groups, adjusted for maternal age and parity.

**Results:** We identified 544 prison pregnancies, 2,156 prison controls, and 1,284,949 general population controls. The prevalence was increased for prison pregnancies and prison controls compared to the general population for preterm birth: 15.5% (95%CI 12.9-18.6), 12.5% (95%CI 11.1-14.0), and 6.4% (95%CI 6.3-6.4), low birth weight: 13.0 (95%CI 10.5-16.0), 11.6% (95%CI 10.3-13.1), and 4.8% (95%CI 4.7-4.8), and small for gestational age: 18.1% (95%CI 15.0-21.5), 19.2% (95%CI 17.5-21.0), and 12.5% (95%CI 12.5-12.6). Compared to general population controls, adjusted odds ratios were significantly increased for both prison groups.

**Interpretation:** Around imprisonment, women are at increased risk of adverse pregnancy outcomes compared to the general population, whether they are in prison during their pregnancy or not. Work is needed to enhance clinical care for this population.





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