ANNOUNCING
Doctoral Dissertation Defense

Abdul Rahman Shour

“Women's Exposure to Intimate Partner Violence and its Impact on Birth Outcomes in the United States”

Candidate for Doctor of Philosophy in Public and Community Health
Division of Epidemiology
Institute for Health and Equity
Graduate School of Biomedical Sciences
Medical College of Wisconsin

Dissertation Committee in Charge:
Laura Cassidy, MS. PhD (Advisor and Chair)
L., Kevin Hamberger, PhD
John Meurer, MD, MBA
April Z. Dawson, PhD, MPH
Constance Kostelac, MS, PhD

Wednesday, April 14, 2021, 3:00 pm (CST)
Live Public Viewing (Panopto):
https://mcw.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=950f109e-2e28-4b17-a1ac-ace600ed6151
GRADUATE STUDIES
Biostatistics I
Doctoral Seminar
Principles of Epidemiology
Community Health Improvement I: Foundations of Public and Community Health
Community Health Improvement II: Health Disparities and Underlying Determinants of Health
Community Health Improvement III: Principles and Practices of Community-Academic Partnerships
Community Health Improvement IV: Translating Community Health Imp. into Policy: Theory & Practice
Stata I
Regression Analysis Using Stata
Qualitative Methods
Qualitative Analyses
Ethics and Integrity in Science (online)
Research Ethics Discussion Series
Readings and Research
Program Planning and Implementation
Maternal and Child Health
Health and Medical Geography
Critical and Analytical Writing
Doctoral Dissertation
ABSTRACT

Limited data exist on the association between social determinants of health (SDOH), exposure to intimate partner violence (IPV) in mothers and low birth weight (LBW) infants in the United States and Wisconsin. Also, SDOH plays a significant role in domestic violence (DV) victimization. However, little is known about the underlying SDOH mechanisms that drive these associations, and practical means to connect DV data to contextual neighborhood factors (SDOH) are widely unavailable. To fill these gaps in knowledge, this study analyzed IPV data and its association with LBW adjusting for SDOH in the US, using a nationally representative weighted sample (Aim 1), and in Wisconsin, using a statewide weighted sample (Aim 2). Additionally, the study analyzed the association between SDOH, as measured by the Area Deprivation Index (ADI) and the severity of injury and types of DV victimization among women (≥18 years of age) in Milwaukee (Aim 3).

Data were analyzed from the Pregnancy Risk Assessment Monitoring System (PRAMS), 2016-2017, with a nationwide representative sample (3,977,398) and Wisconsin statewide weighted sample (125,581) of mothers meeting inclusion criteria, respectively. Neighborhood ADI, from the American Community Survey (2014-2018) was merged with Milwaukee Police Department DV data with a sample of 21,095 women between 2013-2017. The study outcomes were LBW, defined as <5.5 pounds at birth, and severity of injury and types of DV categorized using the Uniform Crime Reporting-Hierarchy Rule including Crimes Against Persons such as homicide and nonnegligent manslaughter, sexual assault/rape, aggravated battery/assault, and simple assaults. The primary independent variables were different forms of IPV exposure including physical, sexual, and psychological violence for 12 months before and during pregnancy by husband/partner or ex-husband/partner. ADI was used as continuous. This study adjusted for covariates (SDOH) in four models: socioeconomic factors, health services/programs, substance use, and health history. Chi-square, fisher’s exact, anova tests, logistic regression and Poisson regression analyses were performed using STATA, accounting for complex survey design and sample weights.

In the US, adjusted analyses indicate that exposure to physical-IPV for 12 months before and during pregnancy remained to be significantly associated with a higher rate of LBW (1.2,95%CI=1.0–1.5) after adjusting for socioeconomic factors. However, the relationship between physical-IPV and LBW was no longer significant after controlling for maternal utilization of health services/programs (1.2,95%CI=0.9–1.5), substance use factors (1.2,95%CI=0.9–1.5), and health history before pregnancy (1.1,95%CI=0.9–1.4). In Wisconsin, the relationship between psychological-IPV (felt-controlled) and LBW was significant at the bivariate level (p=.04) and was no longer significant after controlling for socioeconomic factors (1.2,95%CI=0.4–3.9), clinical care/access to health services/programs (1.3,95%CI=0.3–5.3), substance use (1.1,95%CI=0.2–4.9), and health history (0.7,95%CI=0.1–5.1). In Milwaukee, the results of the adjusted model demonstrated that with each increase in neighborhood disadvantage (by ADI), there was a 0.002 increase in the likelihood for aggravated battery/assault (0.002,95%CI:0.0004–0.0038) and severity of injury (0.0013,95%CI:0.0002–0.0240).

The results of this study suggest that physical-IPV and psychological-IPV were significantly associated with LBW. However, socioeconomic factors and maternal utilization of health services/programs, in particular, explained the relationship between LBW and IPV. SDOH such as increasing neighborhood disadvantage was significantly associated with an increase in the likelihood of DV (aggravated battery/assault) and severity of injury among women. In the understanding of IPV/DV before and during pregnancy, this study suggests that individual and community level factors matter. To date, however, there has been a stronger emphasis on the significance of individual-level factors to explain IPV/DV victimization. This study demonstrates the importance of macro-level context (SDOH) and how characteristics of the neighborhood where an individual resides are important for fully understanding IPV/DV victimization. These findings suggest that highly segregated cities such as Milwaukee are still impacted by neighborhood deprivation rooted in historic policies which created lasting patterns of segregation still realized today.
Curriculum Vitae
Abdul Rahman Shour, MSP

PhD Candidate in Public and Community Health
Division of Epidemiology, Institute for Health and Equity, Medical College of Wisconsin
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Education

Ph.D.: Public and Community Health (ABD) Expected in 04/2021
Institute for Health and Equity, Epidemiology Division, Medical College of Wisconsin
Milwaukee, WI

- Dissertation: Women's Exposure to Intimate Partner Violence and its Impact on Birth Outcomes in the United States. Advisor: Laura Cassidy, MS, PhD, Professor and Director of Epidemiology

Master of Science: Sustainable Development and Peacebuilding 08/2017
College of Nursing, University of Wisconsin – Milwaukee
Milwaukee, WI

- Capstone Project: Fostering Capacity to engage with Complex Global Problems: Dealing with the Complexities of Infant Mortality in the City of Milwaukee

Bachelor of Science: Social Sciences and Law, Peace and Conflict Studies 12/2014
Fourah Bay College, University of Sierra Leone Freetown


Certifications

- Seminar on National Institute of Health Funding Mechanism and Proposal Design
- Certificate on Completing the Human Research Subject and Conflict of Interest Training, by the Collaborative Institutional Training Initiative (CITI Program), 2017
- Internet & Core Computing Certification (IC3), software installation and computer hardware repairing, Silicon Pro, Freetown/Accra Sierra Leone/Ghana, 2008.

Professional Experience

Data Analyst/ Research Assistant 07/2017 to Current
Institute for Health and Equity, Medical College of Wisconsin Milwaukee, WI

- Analyzed data, compiled results using Stata, and conducted presentations for public, community and academic dissemination and independently, and collaboratively conducted research studies in various health topics to advance the goals of the principal investigators, and supported research proposal design for RO1 funding applications
- Provided REDCap training to community partners including the Alma Center staff on data entry and management
- Analyzed complex research data using quantitative methods including Pregnancy Risk Assessment Monitoring System (PRAMS), CDC Vital Statistics System, and Demographic and Health Survey
Distant-Physician (Disphy) Telehealth App, Medical College of Wisconsin
Milwaukee, WI

- Lead and managed a team of physicians and doctoral researchers in data collection, analysis and reporting in more than 20 countries including the United States, and countries in Africa, Asia, and Europe to inform app development
- Secured start-up funding from the National Science Foundation I-Corp program in collaboration with the Southeastern Wisconsin Enhancing Regional Technology Commercialization project (Pass-Through Entity PTE Federal Award #:1450386; Subaward#: 213405496)
- Responsible for all aspects of the project performance including achievement of the mission, leading, and designing strategic goals, management and oversight, team building, managing innovation and development of the project within a national and international context.

Health Systems Research Fellow
Milwaukee, WI

- Communicated regularly through in-person meetings with managers, staff, and stakeholders at the House of Peace and Silver Spring community nursing centers to reduce health disparities in low-income, primarily Hispanic, and African American communities.
- Completed fieldwork project titled “Using the Automated Community Health Information System (ACHIS) to examine changes in health outcomes and predicting health risks among women of reproductive age in Milwaukee’s African American community.”, using systems thinking and complexity analysis
- Worked closely with partnership director and faculty and team members to deliver project requirements

Research Fellow
Milwaukee, WI

- Performed policy analysis and published policy brief with MKE Elevate project in Milwaukee
- Assisted the Director to improve the quality of four home visiting programs: Empowering Families of Milwaukee (EFM), Nurse-Family Partnership (NFP), Parents Nurturing and Caring for their Children (PNCC), and Direct Assistance for Dads Project (DAD).
- Partnered with healthcare providers to conduct research using systems thinking methods: dynamic feedback loop, systems map, upstream/downstream analysis, network maps, surveys and interviews.

Research Assistant
Milwaukee, WI

- Conducted observation surveys, and recorded findings to improve water quality and restoration monitoring in the Pike River watershed
- Attended key partnership meetings with key stakeholders in Mount Pleasant of Wisconsin to assess challenges, assets, and desired goals.
- Operated and maintained equipment for water testing

Graduate Teaching Assistant
Milwaukee, WI

- Assisted in teaching, coaching, and assessing students’ performance to achieve academic improvement goals, in both traditional classrooms, online and community collaborations through experiential learning
- Supported teaching and mentoring college students in Conservation & Environmental Science course and Peace Studies program.
- Tracked class and student metrics including attendance, projects, labs, and reports for 2 years.
• Worked collaboratively with stakeholders at all levels to train law enforcement agencies including the Sierra Leone Police on various human rights and gender concerns.
• Evaluated, assessed, and reported on three internal court systems including the High Court of Appeals to promote due process, and supported creating the Family Support Units to increase women's participation in Sierra Leone's Police force.
• Educated policymakers and other stakeholders about funding and best practices to address the Ebola emergency.

Fellowships, Awards, Honors

• Graduate Student Fellowship $65,000 per year for four years, 2017-2021
• Greg Alexander Outstanding Student Paper Award, Maternal and Child Health Promotion, American Public Health Association, 2019.
• 1st Place Poster Presentation Award, Sigma Theta Tau International Honor Society of Nursing, Eta Nu Chapter, 2nd Annual Student Poster Symposium for College of Nursing Students.
• 2019, Excellence in Scientific Research, American Association for the Advancement of Science
• 2017, Graduate Student Fellowship, MCW Graduate School of Biomedical Sciences
• 2017, Honorary Excellent Speaker, World Affairs Seminar on Social Justice, Carrol University
• 2016, WC Kohler Scholar Award for exceptional academic performance in graduate school
• 2013, Meritorious Award Winner, Annual Inter-University Debate Championship, USL
• 2012, Government of Sierra Leone Grant-in-Aid Fellowship for good academic performance
• 2013-2015, President of the Society for Peace and Conflict Resolution, Fourah Bay College, University of Sierra Leone

Professional Memberships

• 2019-2021, Member, American Public Health Association (APHA) and the Wisconsin Chapter
• 2019-Present, Member, MCW Underrepresented Students in Biomedical Research (USBR)
• 2018-Present, Member, MCW Center for Advancing Population Science
• 2018-Present, Member, MCW Graduate Student Association
• 2017-Present, Member, MCW Title IX Steering Committee
• 2018-2019, Member, Pediatric Trauma Society
• 2017-2018, Volunteer Evaluator, Best Baby Zone Initiative, Housing Authority of Milwaukee.

Publications (In Print and Press)

Abstracts & Conference Presentations

Scientific Journal Articles


Book (Chapter)


Health Policy Brief


Submitted/Accepted Papers