



Women's Health Research Consortium Winter Newsletter 2020

From the leadership committee of the WHRC, we would like to thank all of the faculty, residents and students who have worked hard all year to complete important and relevant research that has worked to further the field of women's health. The mission of the WHRC is to increase research opportunities for students, improve research quality, and provide much needed analysis on the state of women's health in South Louisiana. The accomplishments of each participant in the WHRC showcase the successes of that mission. **We especially want to thank those of you who have contributed to the WHRC over the past nine months despite the accommodations we have had to make due to the SARS-coV-2 virus.**

not mention the other pandemic that is occurring in our country at this time: racism. With COVID-19 afflicting our most vulnerable communities, the health disparities that exist within our community were brought to the forefront this spring. However, health care disparities have been present in our community for many years in relation to chronic diseases and healthcare accessibility. As a research consortium, we are committed to the pursuit of research in health care disparities, systemic racism, and the effects that it has on women's health. Heading into the New Year, we hope to add contributions to the field of research in this arena. We have a lot to learn, both as investigators and future physicians.

2020 Updates

COVID-19 has directly impacted our nation in the past nine months. Due to this virus, our medical students were pulled out of rotations and had to adapt to a new world of virtual learning and telemedicine. We have adapted our curriculum to an online format with consortium meetings held through Zoom. As a group that values in-person discussion and troubleshooting with faculty and students, we are sad that we have had to suspend our in-person meetings. However, we continue to find new ways to advance research opportunities in the field of women's health. Through Zoom, we have been able to include our faculty in Lafayette allowing for collaboration and diverse research experiences. In the wake of COVID-19, we are currently working on expanding our infectious diseases and pregnancy research projects including those involving COVID-19 and the effects on women's health. However, we would not be doing our due diligence if we did

Completed Projects & Poster Highlights

Summer & Fall 2020

- **McDougal, M., Nair-Fairless P., Weiss T., Dao, E., Chapple, A., Jernigan, A.** "Practice Patterns and Results of Tumor and Germline Genetic Evaluation of Women with Endometrial Cancer in South Louisiana" Submitted to Gynecology Oncology Report.
 - **We would like to highlight Morgan McDougal's hard work on this project over the past three years and we congratulate her on completing her manuscript!**
- **Lanza, M., Beerman, S., Depaula-Cox, R., Chapple A., Holman, S.** "Compliance with Postpartum

Follow-up in LSU Ob-gyn prenatal clinics.”
Presented at Medical Student Research Day 2020.

- **Roth, M., McNeely, M., Olister, S., Freehill, N.** “Aligning Obstetric and Neonatal Care to Optimally Manage Neonates Exposed to Herpes Simplex Virus.” Submitted to ACOG, ACP, and AMSA National Convention.
- **Taylor K., Noel, E., Chapple, A., Sutton, E.** “Risk Factors for Peripartum Hemorrhage in a Tertiary Hospital in South-Central Louisiana.” Manuscript in process.

Enhanced recovery after surgery (ERAS) implementation in gynecologic surgery patients in a medically underserved population

M. Brown, V. Manassah MD¹, A. Clark¹, M. D. Manassah¹, S. Holmes MD¹, A. Jernigan MD¹, S. Scheib MD¹, J. Shank MD¹, A.G. Chapple PhD¹, E. Kelly MD², N. Nair MD MPH^{1*}

1. Louisiana State University School of Medicine, 2. Louisiana State University School of Public Health, Louisiana State University, New Orleans

Background

- ERAS is a set of evidence-based interventions that improve postoperative outcomes for elective patients by standardizing perioperative care.
- ERAS is well studied in primarily insured populations, it has not been shown to be effective in a resource-poor, insured and uninsured patient population with social barriers to care.

Measures/Methods

- In collaboration with the LSU Gynecology service, we implemented ERAS protocol in our tertiary gynecologic surgery at University Medical Center (UMC) in March 2019.
- Data was obtained from medical records pre (1/1/18-2/28/19) and post (3/1/19-2/28/20) ERAS implementation.
- Length of stay (LOS), readmission within 30 days, and pain scores were assessed among all publicly insured and uninsured patients.
- Minor procedures were excluded from analysis.

Results

BMI of Participants

Fig 1: BMI tenders of pre-ERAS period

Fig 2: Patient tenders to insurance type

Length of Stay

Fig 3: Length of stay before and after ERAS implementation

Average Pain Score

Fig 4: Average pain score before and after ERAS implementation

Recommendations/Future Directions

- This is the first study to our knowledge of assessing the impact of ERAS on a medically-underserved population.
- We found that implementation of ERAS led to improved average pain scores among patients and shorter hospital length of stay in this population. However, when adjusted for confounding, only average pain scores remained statistically significant.
- Implementation of the program did not negatively impact hospital readmission rates, an important quality outcome.
- Our next steps are to better understand the impact of ERAS on opioid use among this patient population. The goal of the program is to decrease need for opioids.
- Additional future areas of investigation include compliance with the ERAS protocol at all levels of care and the impact of ERAS implementation on patient satisfaction.

Morgan Brown presented her research on Zoom at the 8th Annual Quality Improvement & Patient Safety Forum on June 4th, 2020. Her abstract was also accepted to AAGL

Improving the Rate of HPV Vaccine Administration in an Urban OBGYN Resident Clinic: A Team-Based Approach

Simran Mittal¹, Tina Nguyen¹, Monica Khatami MD¹, Anissa Phipps MD¹, Sydney Holmes MD¹, La'Nyah Tanner-Sanders MD¹, LSUHSC School of Medicine, New Orleans; ²Department of OBGYN, LSUHSC, New Orleans

Purpose

The goal of this quality improvement project is to increase the number of women within the expanded age range who receive the HPV vaccine at University Medical Center (UMC) Women's Clinic in New Orleans, LA.

Methods

Using the Six Sigma feature in Epic, calculations to assess baseline vaccination rates from October 2018 to October 2019 were performed.

Background

- In October 2018, the FDA approved the use of the HPV vaccine for adults aged 27 to 45 years.
- This vaccination provides an efficacy of 88.7% against a combined endpoint of cervical intraepithelial neoplasia grades 1, 2, or 3, persistent HPV infection, or extra genital lesions.
- ACOG encourages routine HPV vaccination discussion and shared decision making within this extended age group.
- Despite approval, vaccine utilization remains low at UMC.

Results

- Of the female patients ages 27-45 at UMC Women's Clinic, zero received the HPV vaccine.
- 5,643 female patients met the age requirement to receive the HPV vaccine during this time.

Discussion

Our planned interventions to increase HPV vaccination rates from a baseline of 0% include the following:

- Educate residents regarding the extended age guidelines: completed in early 2020 and will be repeated on an annual basis
- Review guidelines with all providers and nursing staff in clinic as well as maintain regular updates
- Reach out to the IT department to streamline navigation in Epic for patients' immunization records
- Develop bilingual standardized patient handout about the vaccine

Next Steps

We plan to reassess vaccination rates at UMC after completion of these interventions. If successful, this initiative can then be expanded to all ambulatory services at UMC that provide primary care and women's services.

References

Simran Mittal and Tina Nguyen presented their work at ACOG Medical Student Conference

Message from the Senior Advisors

The WHRC was co-founded in 2018 by two former medical students Aubrey Schachter and Ashley Duhon. Aubrey Schachter is now a first-year general surgery resident at The University of Tennessee Health Science Center, and Ashley Duhon is a first-year Ob-Gyn resident at Montefiore Medical Center-Albert Einstein College of Medicine. We are grateful for their ingenuity and collaboration with Dr. Jernigan-carving the path for women's health research at LSUHSC. We acknowledged their hard work at our banquet in April 2020!

An Assessment of Medical Student Perceptions Towards Abortion Education

Simran Mittal¹, Annel Gwan¹, Andrew Chapple PhD¹, James Ziffm MD¹, Valerie Williams MD¹, LSUHSC School of Medicine, New Orleans; ²Department of OBGYN, LSUHSC, New Orleans

Purpose

Our study aimed to assess Louisiana medical students' opinions about abortion education at their institutions

Methods

Students from all four medical schools in Louisiana were invited to complete an electronic qualitative survey about abortion education.

Background

- In 2017, The American College of Obstetricians and Gynecologists (ACOG) joined the Association of Professors of Gynecology and Obstetrics to reaffirm its supportive stance to include abortion education in medical schools.
- Safe and accessible abortion care hinges on the number of adequately trained health care professionals who offer the service.
- Yet, the very inclusion of abortion education and the extent to which it is covered is often compromised due to political, religious, and/or philosophical influences of key stakeholders

Results

Of the 400 analyzed surveys, 78% of students indicated that abortion education is inadequate at their medical school.

Discussion

- Medical students deem their abortion education inadequate.
- Without comprehensive abortion training, students are unable to determine their interest in providing abortion services, thereby limiting the pool of trained professionals for this common procedure.
- Medical schools should expand their current abortion curriculum to better suit the educational desires of their students.

Perceived Barriers to Abortion Education

References

Simran Mittal and Polly Gwan presented their work at ACOG Medical Student Conference and AMA. It was also accepted to APGO/CREOG and included in Doctors for America National Leadership Conference booklet

Women's Health Research Consortium

LSU New Orleans Award for Excellence in Women's Health Research

This certificate is presented to

Ashley Duhon

For her leadership in creating the Women's Health Research Consortium

Amelia Jernigan, MD

Chairs: Maya Roth & Sam Kamal
Chairs Elect: Tina Nguyen & Polly Gwan

Date: April 6th, 2020

The certificate is for taking the initiative in leadership at LSUHSC and showing exemplary performance in the role taken

Sam and I are honored to follow in their footsteps as the Senior Advisors to the organization this year. We will continue to build upon the mentorship model we have created at LSU for women's health research and are looking forward to what the New Year will bring.

Sincerely, Maya Roth and Sam Kamal

2020-2021 Leadership

Senior Advisors (L4)

Maya Roth, Saman Kamal

Chairs (L3)

Polly Gwan, Tina Nguyen

Chair-Elects (L2)

Katie Henry, Madison Lanza

Resident Representative

Yetunde Akinde

Advisors

Dr. Amelia Jernigan, Dr. Judy Crabtree, Dr. Stacey Scheib

We are pleased to welcome Dr. Rebekah Gee as our new faculty advisor!

Project Spotlight

Visual Representation of Vulvar Skin Conditions in Major Gynecology Textbooks: Are Skins of Color Underrepresented?

Gwan, A., Tanner-Sanders, L. Chapple, A., Nair, N., Jernigan, A.

Purpose: To evaluate images of vulvar conditions (VCs) in major gynecologic textbooks and determine whether there is a diverse representation of skin tones.

Background: Familiarity with the appearance of vulvar pathology on women of different skin tones is critical for obstetrician/gynecologists (ObGyns) to skillfully and equitably identify and treat VCs.

Methods: Images of VCs in gynecologic textbooks for medical students, ObGyn residents, and fellows were compiled. Skin tones were scored according to the Fitzpatrick Scale (FS) and categorized as benign, infectious/inflammatory, dysplasia, or cancerous. Publishing and author demographics were collected.

Results: Of 512 images from 21 textbooks, 75% [N=395] were of lighter skin tones (FS I-III). VCs were represented on darker skin (FS of VI) in 19.6% of images in texts targeting residents, compared to 8.5% and 4.5% in fellow and student textbooks, respectively ($p < .001$). Compared to a cornerstone surgical atlas, the pediatric and adolescent gynecology text consisted of lighter skin tones (OR 0.59, CI 0.35-0.98) and a prominent general gynecology text used darker skin tones (OR 2.97, CI 1.51-5.83). Images of inflammatory/infectious conditions were more likely to be of darker skin tones ($p = 0.010$).

Conclusion: Most textbook images of VCs represent lighter skin women and darker skin tones are particularly underrepresented in texts geared at fellows and students. Inadequate exposure to the appearance of VCs on darker skin

may promote racial inequities in healthcare. Medical textbooks should aim to present visually diverse images of vulvar pathologies to train physicians well versed in caring for patients of all skin tones and promote health equity for all patients.

This project has been accepted to APGO & CREOG National Conference.

Applicability of the King-Devick Test for Cognitive Impairment Detection in Patients with Multiple Sclerosis

Katherine Henry; Deidre J. Devier, PhD
LSU Health Sciences Center, New Orleans, LA



Katherine Henry presents her research at the Medical Student Research Virtual Symposium Fall 2020. She was selected as the 1st place winner in the L1/L2 Category!

Quality Improvement

Since the WHRC was founded, we continue to work on improving the organization. Every year the WHRC sends out an annual survey to track student satisfaction with research opportunities and barriers to completing research projects. Check out our abstract that was presented by Maya Roth at AMSA National Conference April 2020:

BACKGROUND: Participation in research during medical school is recommended for successful match into residency; however, access to research can be difficult to obtain and the research process arduous to navigate without assistance. Additionally, medical research focused on women is historically lacking. To address these issues, the authors sought to identify a mechanism in which to improve access to and support for medical student research in the broad field of women's health.

METHODS: The Women's Health Research Consortium (WHRC) was established as a student-led collaborative venue to increase access to research opportunities and provide support as students learn to complete their own

high-quality research projects. The authors developed an online resource bank composed of research questions solicited from clinical faculty in a variety of fields, recruited faculty mentors, and created guides to navigate the research process. Quarterly meetings led by the WHRC leadership committee include educational lectures on different aspects of the research process and a collaborative check-in where each research team shares details on their current projects and the group problem-solves any roadblocks. The WHRC encourages a diverse research team composed of students from every year in order to promote a mentorship model and allow for the completion of longitudinal projects. An annual survey has been distributed to track student satisfaction with research opportunities and changes in barriers to research project completion after the development of the consortium. Survey participant satisfaction was determined by a Likert scale graded one to five. Two years of survey data have been collected with plans to continue data collection annually.

RESULTS: Since the inception of the WHRC in 2018, over 110 students have participated. There are currently 38 projects in process, and 8 poster presentations have been completed. Research projects are ongoing, and many are approaching the manuscript stage. Student satisfaction with research opportunities has increased from 2.32 prior to the inception of the program to 3.06 one year later ($p < 0.01$).

CONCLUSION: Preliminary data shows the formation of a medical student research consortium has been shown to improve student satisfaction with research opportunities and has increased participation in women's health related research. The mentorship model of the consortium allows students to learn from those more senior and then to serve as a mentor as they gain experience. The WHRC model is easily replicated and may improve research knowledge and accessibility for medical students across the country.

Future Plans



Anwei Polly Gwan



Tina Ngyuen

Our current co-chairs- Polly and Tina are taking the lead on our new project for spring 2021 titled: Implications of Student Faculty Collaborative Research Efforts on Departmental Research Output. The purpose of this study is to retrospectively review the research output of both the WHRC and the Musculoskeletal Research Committee to determine if these organizations have improved research output within their respective departments and identify faculty-level barriers towards manuscript publication.

We are excited to see the results of this study and hope to address barriers to manuscript completion this upcoming year!

For more information or to join the WHRC, visit www.medschool.lsuhs.edu/lswHRC or email WHRC@lsuhsc.edu.