Vignettes

Understanding the Maternal Experience of Opioid Use Disorder through Qualitative Storytelling: Innovative Undergraduate Research

Heide S. Temples, Mary Ellen Wright, Olivia Chafe, Haley McKee, Emily Guthrie
Clemson University, heidet@g.clemson.edu

Large social problems necessitate multidisciplinary solutions from a variety of research methodologies. The project's focus was to engage preprofessional health students using qualitative research and self-reflection to address the complex issues surrounding the underserved population of mothers with substance use disorder. The students reported development in empathy, understanding a complex social problem, and creating innovative solutions to improve health-care services.

The Creative Inquiry (CI) Program at Clemson University is an undergraduate research program with a team-based investigation led by faculty mentors to provide student research experience and course credit. Students reviewed and selected topics from descriptions of research opportunities on the CI website and were interviewed and selected. This innovative qualitative study aimed to understand the maternal experience during pregnancy and parenting while battling Opioid Use Disorder (OUD) in a rural southeastern region of the United States. Participants were recruited by collaborating with local, nonprofit, government-supported recovery centers. The Institutional Review Board of Clemson University in Clemson, SC, approved this study (IRB Exempt Protocol IRB2018-317).

Each student's preparation included reading and providing written personal reflections on two books. *Dreamland* (Quinones 2016) provided an overview of the etiology of the opioid crisis in the United States. *A Street Cat Named Bob* (Bowen 2012) told an autobiographical account of the challenges of recovering from heroin. This book served to connect students with addiction issues and to humanize people who struggle with addiction to further develop a sense of empathy.

The students and faculty collected 11 stories with a dedicated phone, only used for mothers calling to anonymously share their stories of addiction. After verbal consent to record the conversation and voluntarily share her story, the phone number of the incoming call was deleted. The qualitative storytelling narrative used open-ended questions to allow participants to share what they considered valuable in their story rather than have researchers ask predetermined questions, which could have influenced answers. After the interview ended, student researchers entered their thoughts in a journal, and faculty made themselves available to listen if undergraduates struggled with their emotions. Two students transcribed each story, removing any identifying information other than the assigned participant code and deleting the audio recording to prevent voice recognition of the participant. The data that remains for analysis is a coded word document without names or details to prevent identifying the storyteller. Maternal interviews were analyzed initially by the students for underlying themes using the Atlas.ti program, and the faculty members performed the final thematic analysis and validation.

A double-entry reflective journal of their interviews and readings allowed students to reflect, share, and discuss ideas and questions within the social context of substance use and the opioid epidemic at monthly seminars. The students also were required to complete a take-home quiz on the books' contents. Students learned and applied qualitative research methods based on theoretical frameworks relative to the research project, including Nursing as Caring by Boykin and Schoenhofer (2001) and the Ecological Social System Theory by Bronfenbrenner (1986). The students applied the theme of positive or negative social support while using Bronfenbrenner's system to further understand the complex social problem of OUD.

This research and collaboration model resulted in the dissemination of 11 posters and 2 podium presentations at 7 international, national, regional, and local professional health-care conferences supported by four competitively awarded travel grants. The dissemination of the research at nursing conferences allowed health professionals to better support families with OUD and improve health-care services for patients. Most undergraduate participants in this project were recently accepted to nursing, medical, or pharmacology programs. Understanding the social issues surrounding patient care will be advantageous for these future health-care professionals.

The publication of a book (Wright and Temples 2019) and three submitted manuscripts are products of the pedagogical teaching. The book was written to promote further understanding of the experiences of mothers with addiction and recovery and to encourage society to positively support this at-risk population. Additionally, most of the royalty funds generated are returned to assist future research on this topic through the university's research

foundation. The research team plans to send copies of the book and informative letters to stakeholders in public, political, health, and religious organizations to spread awareness for an often overlooked vulnerable population.

This project is part of the university's Center for Research on Health Disparities, which focuses on comprehensive, culturally sensitive, and community-based research that improves health outcomes and enhances quality of life. The center links faculty, students, and community members to advance research of the complex causes of health disparities. Applying a nontraditional research model and partnering with the nonprofit recovery center industry helped to prepare preprofessional health students to understand the complexity of the issues.

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Undergraduate Images of Research + Arts Competition: Lessons Learned and Future Directions

Lorraine S. Wallace, Mikafui Dzotsi, and Kayla Daniel
The Ohio State University, wallace.621@osu.edu

Universities and professional societies have launched interactive and engaging platforms for individuals to showcase their research activities (Cuff et al. 2019; Reichle 2019; University of Leicester n.d.; University of Saskatchewan n.d.). In 2018, the Office of Undergraduate Research & Creative Inquiry (UR&CI) at The Ohio State University (OSU) established an Images of Research + Arts (IR+A) Competition for undergraduates to capture and share the essence of their research in a unique and visually stimulating format (UR&CI 2020). This vignette describes the process, lessons learned, and future directions of the IR+A Competition.

UR&CI worked alongside campus partners to promote and encourage IR+A Competition submissions. Over a two-month period, undergraduates submitted materials via a Qualtrics survey, which included demographic and academic information, image generation details (e.g., date and location of the image), descriptors (e.g., title, written narrative) and image upload (a minimum of 300 dpi was required). UR&CI staff assembled and electronically distributed submissions to a multidisciplinary group of staff and faculty ($n = 8$) for an initial blind review. Reviewers evaluated submissions on connections among title, image and written narrative, originality, and overall visual impact. Reviewers identified and ranked their top five submissions. Next, UR&CI staff compiled and tabulated the submitted rankings to identify four finalists.

Finalist submissions (title, written narrative, and image) were professionally printed on foam core boards and prominently displayed during the largest multidisciplinary OSU undergraduate research forum held each year. During the registration process, each undergraduate presenter and faculty forum judge were provided with a ballot to select their favorite submission. Completed ballots were placed in a box, sorted, and tallied to identify IR+A Competition awardees (first place, second place, third place, and honorable mention). Finalist results and accompanying images, titles, and written narratives were displayed on the UR&CI website and disseminated through social media platforms.

In 2018 and 2019, 17 students—representing 15 academic disciplines—submitted an IR+A Competition application. Applications were submitted by students pursuing degree programs ranging from science, technology, engineering, and mathematics (e.g., biology, materials science, landscape architecture) and social and behavioral sciences (e.g., economics, nutrition) to arts and humanities (e.g., dance, history). Overwhelmingly, most students (approximately 80 percent) participating in multidisciplinary OSU undergraduate research forums are enrolled in STEM programs. Although the total number of IR+A Competition submissions was relatively small in comparison to overall undergraduate research forum participation (approximately 300), the IR+A Competition drew submissions from students outside STEM-related fields and thereby highlighted undergraduate research in often underrepresented disciplines.

Although the IR+A Competition showcases research discovery through a new lens, several aspects should be considered regarding lessons learned and future directions. The initial evaluation process was limited to reviewers identifying their top submissions. The initial evaluation process should be expanded to provide constructive feedback to all submitters. Providing constructive feedback to students is important because they could use this information to revise and resubmit their work for future IR+A Competitions or other presentation opportunities. Additionally, it would be beneficial to formally assess the IR+A Competition impact on participants, reviewers, and the general university community.

The IR+A Competition was held in conjunction with OSU's annual multidisciplinary undergraduate research forum with the final evaluation process limited to presenters and faculty judges. Organizing the IR+A Competition as a standalone event such as the Texas Student Research Showdown (Reichle 2019) is worthy of consideration. Establishing the IR+A Competition as a standalone event could potentially increase engagement by providing all university community members the opportunity to review submissions and cast their vote using a secure institutional platform. Other institutions should consider implementing an IR+A Competition to illustrate and celebrate undergraduate research diversity on their campuses.

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A Peer-Mentoring System as a Nontraditional Approach to STEM CUREs

Mark Lubkowitz, Cierra Pierce, and Tabitha Finch
Saint Michael's College/Vermont Biomedical Research Network,
mlubkowitz@smcvt.edu

Most faculty members can still recount the summer or year when their lives changed as the result of working in the lab or field, and most are eager to provide similar opportunities for their students. It is well documented that research experiences are developmentally powerful, transformative, and significantly influence a student's decision to pursue graduate study and a STEM career (Eagan et al. 2013; Linn et al. 2015). The challenge is one of scale. At most institutions there is not enough lab space, equipment, faculty time, or funds for every student to engage in research. Course-based undergraduate research experiences (CUREs) address many of these limitations, as they are scalable and available to all students. However, the inclusive nature of CUREs lowers the quality of mentoring; it is, after all, harder to mentor twenty students than it is to mentor two.

At Saint Michael's College, a small undergraduate liberal arts institution, the challenge of quality mentoring inherent in CUREs is addressed using near-peer mentoring. Near-peer mentoring is when an individual completes a course and then serves as a mentor in subsequent iterations (McKenna and Williams 2017). In an undergraduate institution, this can be as simple as a third- or fourth-year student working with a second-year student. Through a CURE developed for a 20-person Molecular Genetics lab course, a widely adoptable model has been created for quality STEM mentoring.

Students enrolled in Molecular Genetics, mainly second-year students, are early in their development, and most of them are embarking on their first sustained research project. Over the course of the semester, many learn that they love bench work, whereas others discover that molecular lab work is not their vocation—these are both worthwhile outcomes. Invariably some students develop a hunger for lab work, and near the end of the semester, two to four are recruited to continue as independent researchers with the instructor over the summer and/or subsequent semester. After this duration of time in the lab, this cohort of researchers returns to the classroom to serve as near-peer mentors and teaching assistants (TAs) as well as to work alongside the professor. This annual developmental progression reinforces the learning of the advanced students, and their participation in the CURE provides considerably more opportunities for authentic mentoring through individual conversations, brainstorming, problem-solving, and role-modeling.

The addition of near-peer mentors as TAs increases the number of interactions in the lab course, because there are more teachers present. These students are effective as teachers because their narratives are generationally tangible and powerful, with their successes and struggles still fresh in their minds. Beyond clarifying content, these mentors inspire their fellow students, as noted by Cierra Pierce, a coauthor of this vignette and a near-peer mentor. She says, "At the beginning of my sophomore year, I looked up to my TA and thought, 'I can never do that,' but the way he interacted with us made me see him as a peer and think, 'I could do that one day, too.'" Her comment captures so much of what makes this approach work; the progression from student to researcher to near-peer mentor is an efficient, developmentally appropriate path that nurtures promising students while leveraging their experiences to effectively inspire an entire class as well as the next generation of peer mentors.

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"Calling an Audible": Reflections on a Student-Created Sports Podcast

Danielle Johannesen
University of Minnesota Crookston, johan259@crk.umn.edu

In American football, "calling an audible" refers to a quarterback spontaneously changing a play at the line of scrimmage. When successful, calling an audible may enable a team to seize an unexpected opportunity. An element of risk is involved, but the rewards can be tremendous. In spring 2018, a group of students in the author's Writing in Your Profession course at the University of Minnesota Crookston became interested in podcasting. Two students, Zach Greenberg and Greg Johnson, envisioned a sports-themed podcast recorded on campus. They felt that a show written and hosted by college students would appeal to college-aged listeners and others. They saw potential for the podcast continuing in future years, with new students hosting the show. The author, who specialized in writing, felt confident mentoring and assessing the students in the storytelling, content writing, and oral communication skills required for a podcast. However, she had no experience in recording, producing, or editing a podcast. Nevertheless, the project, dubbed "Calling an Audible," proceeded.

A small grant was secured through a campus-level program, the Crookston Student Research and Creative Works Fund, which supports undergraduate research. The funding application included research outcomes focused on oral communication strategies, storytelling, and the podcasting medium, with students leveraging that research in an applied setting. James Pogatshnik, a campus Media Services professional, was consulted. Pogatshnik supported the project and suggested using the campus audio booth to record episodes. He offered to help the students edit and produce professional-quality episodes for online streaming or download. The author helped the students craft a mission statement, write content, develop hosting personas, and promote the show, and Pogatshnik emerged as a significant mentor for Greenberg and Johnson as well. Both students described working with Pogatshnik as "eye-opening" in terms of learning about audio production and technology.

Since spring 2018, the students have recorded a season of episodes each semester (see Greenberg and Johnson 2020). Each episode runs about 30 minutes, and the students record one episode every one or two weeks. Research is critical in the students' episode preparation; they spend hours researching sports stories and analyzing statistics. The author worked with Greenberg and Johnson to design business cards for distribution at a campus research fair during the spring 2019 semester. Greenberg and Johnson worked with another student to design a logo for the show and developed a Twitter page to advertise the podcast. Recently, Crookston's Liberal Arts and Education Department agreed to sponsor the podcast so that the program could continue. This sponsorship requires about $100 in hosting fees per year, illustrating that, with support from campus media staff, undergraduate projects such as this one require minimal financial resources.

"Calling an Audible" sparked opportunities for team members and the campus more broadly. Although recent pedagogical scholarship has documented the benefits and occasional drawbacks of using podcasts as teaching tools, scholars have few examples of original, multiseason podcasts created by university students. "Calling an Audible" is unique as an ongoing, multiyear project aimed at a real audience. As new students host the show, episodes can be used as artifacts to qualitatively analyze student learning over the course of many years. Hosting platforms allow for tracking numbers of listeners; this metric is one way to measure the success of the show. For example, as of October 2020, the number of all-time listeners was 243, with 57 percent of listeners from the United States. The students track and document this data. The goal is to gather and analyze five years of data in a larger, student-led research project. The podcast project also reveals the powerful potential of collaboration among faculty, staff, and students. These groups are absolutely essential to the project. Simply asking questions and learning more about talents of non-instructional staff led to the emergence of an audio booth on a small campus in northwestern Minnesota as a laboratory for high-impact learning, where "Calling an Audible" became both a sports podcast and a pedagogical mind-set.

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The History and Future of the Society of Undergraduate Humanities Publications

Henry Jacob
Yale University, henry.jacob@yale.edu

On a rainy Saturday afternoon in October 2018, a group of cadets from *The Report*, the West Point historical journal, traveled to meet with representatives of the *Yale Historical Review* (YHR) in New Haven, Connecticut. Editors from both journals spent hours discussing their respective operations, internal policies, and funding strategies. Inspired by the success of this gathering, YHR editor-in-chief Henry Jacob envisioned a conversation beyond these two higher education institutions; he subsequently reached out to peers at other undergraduate journals.

A series of emails transformed this vision into reality: a national consortium of elite undergraduate publications based on egalitarian principles. By November, Jacob had recruited nearly 20 institutions to join the Society of Undergraduate Humanities Publications (SUHP; see SUHP n.d.). After several months of online messaging and virtual meetings, the *Columbia Journal of History* hosted an inaugural conference for SUHP in New York City in March 2019.
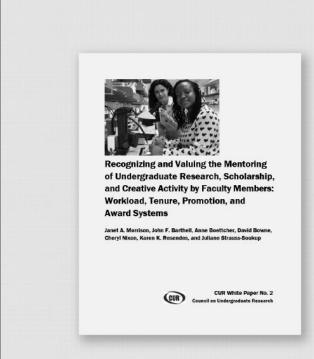
After the success of this first in-person meeting, SUHP members began to plan for the 2020 conference. Shreya Sriram, editor-in-chief of the *Northwestern Undergraduate Research Journal* (NURJ), and her colleagues John Cao and Kevin Bai, co-managing directors of development at NURJ, spent months securing panelists, renting event space, and organizing a weekend full of activities. Unfortunately, the spread of COVID-19 forced Jacob, Sriram, Cao, and Bai to postpone the gathering until 2021.

Since April 2020, SUHP institutions have deepened their connections and adapted to the novel research climate as a group. In fact, because the January 7–11, 2021, annual meeting was held via Zoom, SUHP welcomed more than 200 participants. Indeed, SUHP now includes more than 55 partners and seeks to develop more over the academic year. Despite the pandemic, SUHP has still pursued its guiding mission: to foster meaningful personal and intellectual connections among undergraduates and across borders.

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