

## Preparing Graduate Students for Community Engagement in Health Services Research

Olufunmilola Abraham, PhD, MS, BPharm<sup>1</sup>; Catherine Torner, BA<sup>2</sup>

University of Wisconsin-Madison School of Pharmacy, Social and Administrative Sciences Division<sup>1</sup>

University of Wisconsin-Madison Morgridge Center for Public Service<sup>2</sup>

### Abstract

The purpose of this paper is to shed light on the importance of didactic and experiential training in community engagement for students conducting Health Services Research (HSR) in pharmacy. The incorporation of community-based learning (CBL) courses can be beneficial for graduate students because they provide an opportunity to gain important skills in stakeholder engagement and developing sustainable research partnerships. Early exposure and mentorship of graduate students through CBL courses could minimize the risk of students entering communities in their future careers with harmful tactics such as stereotypes and implicit biases. In this paper, we draw upon previous research to identify an educational gap in community preparedness. Accordingly, we developed a community-engagement course for masters and doctoral graduate students in the HSR program at the University of Wisconsin-Madison School of Pharmacy. This paper provides an example of how other graduate programs may incorporate training in community engagement within their curriculum. In addition, we summarize how CBL courses can help address foundational graduate student knowledge gaps and offer suggestions for the formation of a CBL course.

**Keywords:** community engagement, health services research, community-based learning, pharmacy, community-based research, community stakeholders, stakeholder engagement

### Background

Research conducted within the health services field impacts the everyday lives of patients, their family caregivers, healthcare systems, and providers. Community-based learning (CBL) courses, commonly known as service-learning courses, are “credit-bearing educational experiences that integrate meaningful community service with guided reflection to enhance students’ understanding of course content as well as their sense of civic responsibility.”<sup>1</sup> A key facet of CBL courses is the emphasis on building reciprocal relationships between students and faculty, the university or institution as a whole, community partners and stakeholders. Recognizing the reciprocal benefits of community-engaged work helps to neutralize threats of the development of “savior complexes”, or the sense that researchers need to or are responsible for helping or “saving” vulnerable populations, and other negative approaches by graduate students and other researchers that represent universities when entering communities to conduct research studies. The importance of implementing community engagement courses for graduate students in HSR has not been fully explored. There is a significant gap in the existing literature that needs to be addressed by describing how educators can effectively integrate community engagement into the classroom setting to both educate graduate students about its importance and build long lasting relationships with community stakeholders and research partners.

### Corresponding author:

Olufunmilola Abraham, PhD, MS, BPharm  
University of Wisconsin-Madison School of Pharmacy,  
Social and Administrative Sciences Division  
Email: [olufunmilola.abraham@wisc.edu](mailto:olufunmilola.abraham@wisc.edu)

### Community Engagement in Health Services Research

The term “community” in HSR can be described in two ways: (1) as the collaborative body of those who are affected by the health issues to be studied and (2) as a collaborative group of those who decided to vest in the health concerns of others.<sup>2</sup> Community Engagement is defined as the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people. It is a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members. It often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs, and practices.<sup>3</sup>

Community engagement therefore is the process of working with identified groups of people, including but not limited to those in geographic proximity, academics, public health professionals, and policy makers, to identify and address issues affecting their well-being.<sup>4</sup> Community Engaged Scholarship (CES) is vital to the field of HSR. Educating graduate students on the importance of CES, as well as providing them with strategies to engage in reciprocal relationships with community members and stakeholders, teaches them essential skills for working in the field. In fact, students from a HSR graduate program anecdotally report seeking mentored and didactic training in engaging with community members and conducting high-quality research, in their post-graduation careers.

However, not all communities and vulnerable populations are equally responsive to invitations to participate in university-based research studies. For example, Silberg, et. al. stated that “many communities distrust the motives and techniques of

research”.<sup>5</sup> Community members are aware of the history of exploitation and abuse in medical research in the United States, and others may be “burned out” from participation in research studies. Community members may also have immediate needs that make participating in research studies seem less important or may lack an understanding of the value of research.<sup>5</sup> It is important for graduate students pursuing careers in HSR to be well-educated in the relationships between the universities or research institutions they are working in, and the community they are engaging with. Furthermore, they need to understand how to navigate differences between the goals of these organizations. Not engaging in formal education on community engagement can leave graduate students ill-prepared to make the transition into their professional careers working with diverse communities and may lead to potentially harmful practices in the communities they sought to serve.

Early education and mentorship on respectful and meaningful strategies for partnering with communities in research can allow graduate students to develop robust competencies and effective approaches for working with stakeholders external to the university. CES enables graduate students to begin to navigate cultural, educational, socioeconomic, geographic, and other differences between community partners, researchers, and research institutions. Receiving education on proper community engagement strategies before entering the workforce prepares students to learn essential skills that are now being recognized for their importance in solving health crises. Given the unprecedented increase in rates of chronic diseases, such as addiction, diabetes, obesity, hypertension, and cardiovascular disorders, community-engaged research is increasingly recognized as a vital component of efforts to expand access to quality care, prevent disease, and achieve health equity.<sup>5</sup> Education in community engagement, such as effective communication and engagement skills, and learning to assess community preparedness can provide students the necessary tools to tackle pressing health issues for vulnerable communities.

For instance, researchers found a positive association with the outcomes of mental health services projects when community-based participatory research approaches were utilized.<sup>6</sup> An evaluation of 21 academic-community partnerships focusing on mental health projects found that active community engagement resulted in perceived positive community or policy-level outcomes, including more sustained partnerships among agencies providing care or services for individuals with mental health disorders, policy changes at county or state level, and public recognition or acknowledgement from local policy makers and/or government officials.<sup>7</sup> The positive outcomes of community engagement found in this study emphasize the benefits of training in community-based research. The researchers highlighted three reasons why community partners value community engaged work, specifically CBL projects, including: (1) students provided quality data and reports that informed program development and revision; (2) students

offered increased human capacity and the skills needed to conduct community assessments; and (3) community organizations may benefit from sustained relationships with academic partners.<sup>8</sup> While these studies highlight the vast community benefits of community-based research and learning, there is a gap in the literature recognizing the reciprocal benefits for graduate students. Engaging in CBL courses, such as the one discussed in this article, not only allows students to gain valuable experience and education to prepare them to work with their communities throughout their careers, but it also highlights the lack of education in community preparedness.

### Community Engagement Course Development

#### *Design and Structure*

To address the lack of formal education and mentorship in conducting community-engaged research for graduate students, we developed a graduate-level course designed with the understanding that improving the health of communities requires important collaboration between community stakeholders and researchers. Successful collaboration requires researchers to acquire the skills and competencies needed to engage with community stakeholders in a meaningfully and respectfully way, with the collective aim to identify important research questions that address health and medication use challenges. The goals for the course were to support collaborative approaches to research among students and to demonstrate how to apply principles of community engagement in the field of HSR. In order to achieve these goals, we outlined three key course objectives for graduate students in a health services in pharmacy research program: (1) to delineate the types of community stakeholders and processes for entering communities based on the Wisconsin Idea, which encourages contributions to the community by the university; (2) to identify existing infrastructure to conduct community engaged research projects and develop sustainable partnerships; and (3) to apply principles and models for designing community engaged research by developing a grant proposal and a community stakeholder engagement plan using principles of team science.

The 2019 Fall semester was the first time this course was offered to graduate students at the University of Wisconsin-Madison (UW), School of Pharmacy, HSR in pharmacy graduate program. Due to the structure of the graduate program, this course is offered once, every two years; the course will be offered again in Fall 2021. The course was developed through grant funding from the Morgridge Center for Public Service. The Morgridge Center connects UW students, staff, and faculty with community members to build partnerships that can help solve critical issues, such as physician-patient communication, education, and overall health.<sup>8</sup> In the spirit of the Wisconsin Idea, the Morgridge Center believes in building reciprocal relationships with their partners and preparing students for lifelong civic engagement.<sup>8</sup> Prior to this class, the UW School of Pharmacy did not offer a community engagement course for

graduate students. The theme of the course was based on teaching students how to work as a team on a project that was relevant to their research and community environment. Additionally, this course was designed to help improve students' ability to write technically, read, and interpret relevant articles, and discuss implications of these readings. This 2-credit course was offered once a week for two hours. Participating students (N=11) learned existing models and practical approaches for successfully partnering with community stakeholders to address health and medication-related needs through research. Creating the course was an interdisciplinary undertaking and included faculty with experience in community engaged research from the Schools of Pharmacy, Nursing, Medicine and Public Health, Human Ecology as well as the UW Family Living Programs and the UW Institute for Clinical and Translational Research. Faculty instructors from each of these departments and disciplines worked together for eight months to formulate course goals, the syllabus, and guidelines for graduate student projects.

Throughout the semester, students were introduced to community-based research projects from across Wisconsin via readings and instructor-based lectures (Table 1), as well as developing and framing their own research ideas. Each week, the class hosted different faculty and community members who had experience working with community-engaged HSR (Table

2). Presentations were designed to aid students in learning more about existing models and practical approaches for successful partnerships with community stakeholders across Wisconsin. Course instructors taught topics such as how to build trust in communities, plan community stakeholder meetings, successfully engage communities in research projects, utilize participatory design and toolkits, and plan their own community-based research projects. Other information for the course, such as readings and introductory lecture materials, was supplemented from the textbook *Principles of Community Engagement: Second Edition*.<sup>5</sup> Along with these course components, students practiced writing a community-based research grant proposal and presented these projects to an expert panel of community-based researchers. Students were mentored by faculty in the graduate program on how to identify relevant community stakeholders and develop a stakeholder engagement plan for their respective research ideas. The graduate students worked in three teams throughout the semester to identify a viable research idea and draft a community-based short grant proposal. Students were asked to pick a topic that was relevant to their research interests and agree as a team on the topic of interest. The final agreed-upon projects addressed mental health for both international graduate students and pharmacy students, as well as reducing antipsychotic use for treatment of dementia in nursing homes.

Table 1. Example Topics to Include in Course Design

General Topics	Description
Course Introduction	Review course expectations, semester guidelines, and assignments. Address preliminary questions about the course.
Preparing for Community Engagement: An Introduction to Community-Based Learning	Introduce topics essential to community engagement concepts and vocabulary including issues of bias, stereotyping, and privilege, as well as strategies for proper engagement (e.g., positive, and open communication).
Team Science	Students may begin work on team projects. Discuss strategies, such as communication, leadership, and management skills to help students engage more efficiently and effectively in academic and community teams.
Community-Based Grant Writing and Budgeting	Introduce approaches for developing grant proposals for community-based research projects. Discuss creation of budgets for community-engaged research.
Engaging Stakeholders in Research: Forming and Maintaining Relationships with Stakeholders	Introduce framework and theoretical models for community engagement, communication strategies when working with community partners, such as power dynamics, and creating mutually beneficial relationships.
Planning Stakeholder Engagement Meetings	Discuss different kinds of meetings that can take place to engage stakeholders (For example, focus groups, one-on-one interviews, etc.) as well as communication and facilitation strategies for each.
Team Check-Ins	Throughout the semester, take time in class for students to check in with one another and faculty to assess progress on their projects and ask any questions.
Final Presentations: Community-Based Research Proposals	Individual students or student groups present their research proposals to the class and/or a panel of staff or faculty evaluators.

Table 2. Sample Guest Speaker Topics

Sample Guest Speaker Topics from our Course
Community-Engaged Research in Substance Use Disorder (Presentation and Treatment)
Extension: A Model for Community-Engaged Scholarship
Community Research in Rural Wisconsin
Planning Mixed Group Stakeholder Engagement Meetings
Engaging Stakeholders in Research: Tips and Tools for Successful Collaboration
Using Participatory Design to Engage Patrons
SMARHT Scholars: Designing and Implementing a Youth-Focused Program Focused on Research
Principles, Practices, and Metrics in Community-Based Participatory Research
Building Trust in Communities: Views from Community Partners
Growing from Community-Engaged to Community-Participatory Research in Maternal-Child Health Equity
Developing and Supporting Community-Based Research Partnerships with Pharmacists and Pharmacies

### Course Reflection

At the end of the semester, students participated in a course evaluation. Students expressed that expanding on their knowledge outside of the classroom was beneficial in their understanding of how to form their own community-engaged research projects. Additionally, students stated they benefitted from the ability to practice the skills learned through readings and classroom discussions with instructors and peers, such as respectful communication with community stakeholders and vulnerable populations. Graduate students explained that the course helped to solidify how impactful and important it is to incorporate community voices and values of diverse cultures into their work.

The instructional team took the time to reflect upon and provide end-of-course insights and areas for improvement regarding the structure of the course. Using this feedback, three major areas of improvement for the course were identified. One of these was the inclusion of having a different guest lecturer each class period. While this was beneficial to the students because it allowed them to hear professional and community perspectives, they would prefer to have the same instructor teach each section. The instructional team also identified the need for further community engagement preparation at the beginning of the course including spending more time covering topics in CBL as well as more interactive workshops covering topics such as contacting and facilitating communication with community stakeholders. The third area for improvement was a need for an increase in opportunities for graduate students to receive feedback on their ideas for community-engaged projects, as well as more opportunities to meet with one another.

### Suggestions for Implementation

Community-based learning courses have many iterations, styles, and can look different from one university to another; however, there are a few steps that can be helpful to follow in designing and implementing a CBL course.

### (1) Planning and Preparation

The first step in coordinating a CBL course is planning and preparation. This step involves designing course goals and outcomes, sourcing funds, and beginning to engage in partnerships with relevant community partners and faculty.<sup>9</sup> One overarching goal in most CBL courses is creating collaborative relationships with community partners. Courses based in HSR will largely do so through community-based research projects. In the planning and preparation phase, it is important to consider project parameters (e.g., whether projects will be defined for the graduate students or open-ended). Funding can be another crucial part of CBL courses depending on the breadth of the course. Mapping out these elements will help to get a basic understanding of the course as it continues to develop through the next steps.

The resources for the implementation and development of this course were supported by the UW Morgridge Center for Public Service. This course required a collaborative effort between faculty representatives from different departments at the university, including the UW Schools of Pharmacy, Nursing, Medicine and Public Health, Human Ecology, and the UW Morgridge Center for Public Service. Faculty instructors from each of these departments and disciplines worked together to create the course. Graduate students within the HSR graduate program were encouraged to identify their research interests and an appropriate faculty mentor as they fine-tuned their project proposals during the course. The graduate students applied team science strategies to identify project ideas that would benefit the communities in which they lived and worked. Their faculty mentor then connected them with mentors in their area of research and community member meetings were held to give feedback on each student's research design and proposal. While students did not have the opportunity to work directly within the community, they did get experience working with community members in a classroom setting and were able to create networks within the community.

### (2) Incorporating Reflection

Reflection is a crucial component to CBL courses.<sup>10</sup> This can be done in a variety of ways and greatly depends on the structure of the course. Regardless of the format, reflection “is a thoughtfully-constructed process that challenges and guides students in: examining critical issues related to their CBL project, connecting the service experience to coursework, enhancing the development of civic and ethical skills and values, and finding personal relevance in the work.”<sup>10</sup> Reflection can be integrated into courses via individual or group written reflection assignments, one-on-one student or group meetings with instructional staff members, or large group discussions in the classroom.

Reflection was one of the areas in which our course could have been bolstered. While we did regular check-ins and reflection on the progression of the student projects, as well as problem solving any challenges that arose, it would have been additionally beneficial to take the time to discuss their learning and growth as it pertains to topics in community preparedness and cultural humility, such as notions of identity and privilege, as they enter and engage with community stakeholders.

### (3) Connecting with Community Partners

Once the course outline was established, it was important to thoroughly conceptualize in what capacity the graduate students will be engaging with the community. It has been recommended that students engage in at least 25 hours over the course of the semester to ensure valuable learning and meaningful interactions with community organizations.<sup>10</sup> The level of student engagement can be tailored to suit the overall achieving goals and structure of the course. Typically, students may participate in frequent communication with community partners to understand their goals and expectation for partnership. Consequently, it is critical that students are trained in appropriate communication strategies and that practice and time is built into an outline of the course structure.

In our course, graduate students were mentored by faculty members with experience in community-engaged research to identify and communicate with community stakeholders throughout the semester. To prepare students for this, guest lecturers with experience in community engagement taught students crucial skills in communication as it relates to forming partnerships with community organizations and members. Covered topics spanned from making initial contact to planning and conducting meetings and focus groups.

### (4) Feedback

Upon conclusion of the course, it is important for the instructional team to seek out feedback from all parties involved, including graduate students, instructional staff, faculty project mentors, and community partners. This has informed the future planning and preparation to effectively establish a community engagement course as part of the required curriculum for HSR graduate program. Graduate

students, instructional staff, and guest speakers involved in the classroom instruction can provide insights into organization of course topics, time management, and their perceptions of community preparedness. The amount of information students retained was evaluated by semester-long assessments, feedback, group presentations, reflection essays, and their final project proposal.

The course objectives were met based on the feedback the instructional team received from students and community members. Faculty met with community members outside of the class and received positive feedback on the student’s project proposals and collaborations. Moreover, students gave weekly assessments on what they were learning, wrote a stakeholder plan, and a community-based grant proposal. A further measure of success for the course was that two of the three student groups received grant funding for the proposals drafted in the course.

Receiving feedback from community partners is another essential component of gauging graduate student community preparedness and can help to better inform future lessons in topics surrounding cultural competencies and communication strategies. We solicited feedback through brief surveys sent to the participating faculty members and course evaluations sent out to students at the conclusion of the semester. These surveys highlighted the benefit of having guest lecturers, the opportunity to practice relevant skills, and the ability to work with community stakeholders. The intent of this course was to introduce the students to the idea of community engagement, evaluate their knowledge gained using student group presentations, weekly student feedback, reflective essays, and final project proposal.

### Summary

This course provided graduate students with a comprehensive introduction to community engagement, practices, and skills. Some of these included addressing issues of bias, stereotyping, and modeling proper communication strategies during community-based projects. The implementation of community engaged scholarship within graduate programs in HSR would better prepare students to engage external stakeholders in development and execution of their research projects. Graduate students can develop competencies such as communication, team science, and leadership skills, while learning foundational principles of community-engaged research. Student involvement in active community engagement within research can have positive impacts on addressing public health needs of vulnerable populations while preparing them to be successful in their future careers as effective researchers. This paper provides an example of developing and implementing a community-engaged research course for graduate students, as well as recommendations for improvement. Graduate students articulated the value of engaging with community stakeholders in their work, as well as appreciated the experience writing grant proposals and the

connections made with mentoring faculty and other guest lecturers.

#### Future Goals

This newly developed course will be offered to graduate students the Fall 2021 semester. Once we have data from two semesters of instruction, we plan to modify the course objectives and assessments to further meet our course goals. This will allow for a well-built course content to be offered in the Fall of 2023. As the course continues to be offered, we will not only have more data on how to improve the course further, but more graduate students will be equipped with the tools needed to incorporate community engagement into their work. Furthermore, with more student groups receiving grant funding for their proposals drafted in the course, community members will also benefit from the course. Our hope is that all HSR programs will incorporate didactic training on community engagement into their required curriculum.

**Funding:** This study was supported by the University of Wisconsin-Madison Morgridge Center for Public Service. This study was supported by KL2 grant KL2 TR002374-03 and grant UL1TR002373 to UW ICTR by the Clinical and Translational Science Award (CTSA) program, through the NIH National Center for Advancing Translational Sciences (NCATS). The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

**Conflicts of Interest:** We declare no conflicts of interest or financial interests that the authors or members of their immediate families have in any product or service discussed in the manuscript, including grants (pending or received), employment, gifts, stock holdings or options, honoraria, consultancies, expert testimony, patents, and royalties.

**Acknowledgements:** The authors appreciate Claire Rosenberger for assisting with editing final drafts of the manuscript.

#### References

1. *Teach a Community-Based Learning Course.* (2020). Morgridge Center for Public Service. Retrieved May 23, 2020, from <https://morgridge.wisc.edu/faculty-staff/teach-a-community-based-learning-course/>
2. Brakman SV. Guiding Principles of Community Engagement and Global Health Research: Solidarity and Subsidiarity. *Am J Bioeth.* 2020;20(5):62-64. doi:10.1080/15265161.2020.1745946
3. McCloskey DJ. Chapter 1: What is Community Engagement. In: *Principles of Community Engagement.* Vol No. 11-7782. Health and Human Services Department; 2011:3.
4. What is Community Engagement? <https://aese.psu.edu/research/centers/cecd/engagement-toolbox/engagement/what-is-community-engagement>. Accessed January 11, 2021.
5. Silberg, M., Cook, J., Drescher, C., McCloskey, D.J., Weaver, S., & Zieghan, L. (Eds.). (2011). *Principles of Community Engagement: Second Edition* (p. 15-111). National Institute of Health Publication.
6. Khodyakov, D., Stockdale, S., Jones, F., Ohito, E., Jones, A., Lizaola, E., & Mango, J. (2012). An Exploration of the Effect of Community Engagement in Research on Perceived Outcomes of Partnered Mental Health Services Projects. *SAGE Journals, 1*(3), 185. DOI: 10.1177/2156869311431613
7. Comeau, D.L., Palacios, N., Talley, C., Walker, E.R., Escoffery, C., Thompson, W.W., & Lang, D.L. (2018). Community-Engaged Learning in Public Health: An Evaluation of Utilization and Value of Student Projects for Community Partners. *Pedagogy in Health Promotion, 5*(1), 3. <https://doi.org/10.1177/2373379918772314>
8. Morgridge Center for Public Service. <https://morgridge.wisc.edu/about/>. Accessed January 12, 2021.
9. Stewart, T., & Wubbena, Z. (2014). An Overview of Infusing Service-Learning in Medical Education. *International Journal of Medical Education, 5*, 147-156. DOI: [10.5116/ijme.53ae.c907](https://doi.org/10.5116/ijme.53ae.c907)
10. Morgridge Center for Public Service. *Pedagogy.* Accessed May 23, 2020 from <https://morgridge.wisc.edu/faculty-staff/teach-a-community-based-learning-course/pedagogy/>