Breakable Barriers: The Impact of Teaching Hands-Only CPR Within Marginalized Communities

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Abstract Knowledge is power, and with that power comes the responsibility to share it. As physician assistant (PA) students, we have seen how life-saving skills like cardiopulmonary resusictation (CPR) can bridge gaps in equity and access. Yet, research reveals that minority communities are less likely to perform CPR during an out-of-hospital cardiac arrest (OHCA). For many, this hesitation stems from fear or lack of knowledge, and it is a critical problem. Each year, over 350,000 Americans experience OHCA, but only 40% receive timely bystander CPR, with significant disparities for women and minority communities. To address these disparities, we joined Coronary By-Physician Assistant Students (Coronary By-PASs), an initiative to teach hands-only CPR in Durham, NC. Founded by Duke PA Program alumna during her training, Coronary By-PASs focuses on overcoming barriers to CPR training, such as financial constraints and geographical inaccessibility. During our involvement, the program grew into a sustainable, student-led project, with a lasting impact on future cohorts. We taught CPR to diverse communities, many of whom had never received training before and built trust through meaningful engagement. One memorable moment came when a participant expressed feeling included for the first time because of diverse training manikins. This experience taught us not only how to teach CPR but also how to foster trust and hope within communities. Beyond CPR instruction, we gained invaluable skills in community planning, advocacy, and communication. Coronary By-PASs is not just a program; it is a model for bridging health care gaps and creating lasting change. We are committed to continuing this work, empowering communities and advancing health care equity.

They say knowledge is power—and with that power comes the responsibility to share it. As physician assistant (PA) students, we have come to understand how impactful it can be to equip others with life-saving skills and how those skills can bridge gaps in equity and access. Understanding what to do during a cardiac emergency is one of the most significant things anyone can learn. Yet, research shows a troubling truth: those in minority communities are less likely to perform cardiopulmonary resuscitation (CPR) when someone nearby suffers an out-of-hospital cardiac arrest (OHCA).[1] For many, the hesitation stems from fear—fear of doing something wrong, fear of legal consequences, or simply not knowing what to do. This gap in knowledge and confidence is something we have come to see as an urgent problem—and one we have tackled firsthand through our own experiences.

Each year, more than 350,000 Americans experience OHCA, and 9 of 10 do not survive.[1] Immediate action is critical—each minute without CPR reduces survival chances by about 10%.[1] Yet fewer than half of OHCA victims receive timely bystander CPR, and the disparities are stark. Studies show that women are less likely to receive CPR than men, no matter their location, race, or ethnicity.[2] In addition, individuals in Black and Hispanic communities are less likely to receive CPR than those in predominantly White neighborhoods.[1] Addressing these disparities became more than a statistic for us—it became personal.

During our time as PA students, we joined Coronary By-Physician Assistant Students (Coronary By-PASs), an initiative originally launched by Duke PA Program alumna Adriana DaCosta, while she was a student, to teach hands-only CPR at community health events in Durham, NC. The title Coronary By-PASs is a clever play on words that reflects the program's cardiac focus and leadership. "By-PASs" highlights both the cardiac term "bypass" and the fact that these events are taught by PA students (By-PASs). The program centers around the systemic barriers preventing minority communities from accessing life-saving training: financial constraints, geographical inaccessibility, and time limitations. These barriers resonated with us, but our involvement revealed just how much this work has grown beyond Adriana's vision. During our time leading Coronary By-PASs, it has evolved into a sustainable, student-led project—one that future cohorts can build upon, ensuring its long-term impact.

Our role in Coronary By-PASs gave us the opportunity to engage with diverse communities, many of whom had never been offered CPR training before. In engaging with community members, we have learned the value of meeting people where they are, both literally and figuratively, and the importance of building trust within communities. It is our commitment to building trust that has fostered lasting relationships allowing for the program's sustainability. Some participants shared stories of loved ones they could not save because of a lack of knowledge, while others left feeling empowered to intervene. These moments underscored not just the value of teaching CPR but the critical importance of fostering trust, agency, and hope within these communities.

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One of the most memorable moments came during a training session where we used manikins representing diverse anatomy and skin tones. A participant told us afterward, "For the first time, I felt like this training was meant for people like me." Representation matters—it fosters confidence, dismantles biases, and ensures that everyone feels capable of saving a life.

Beyond teaching CPR, this project has taught us valuable, tangible skills that will shape our careers as future PAs. We have gained experience in community planning, communication, and teaching—skills essential for patient education and advocacy. We have learned how to foster partnerships with local organizations, navigate cultural differences, and address health inequities in meaningful ways. In addition, the organizational aspects of this project—such as planning events, coordinating volunteers, and even considering avenues for research and future grant writing—have given us practical tools we can use throughout our careers.

Reflecting on this journey, we have come to realize that this work is not just about teaching a skill—it is about creating a framework for change. Coronary By-PASs is not just a program, it is a model of how student-led initiatives can bridge gaps in health care access and equity. As future clinicians, we are committed to carrying these lessons forward. We have realized how much this work has shaped our perspective as future clinicians. As PAs, we will carry these lessons forward, ensuring that our care is not only patient-centered but also equity-driven. We want to be providers who not only treat patients but also empower communities, equipping them with the knowledge and resources to take charge of their health.

Looking ahead, we hope this initiative inspires others to take action in their own communities. Whether it is through teaching CPR, advocating for inclusive training materials, or addressing broader health disparities, we all have a role to play in creating a more equitable healthcare system. For us, this project has been a reminder that meaningful change starts small—with one step, one conversation, and one act of empowerment.

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REFERENCES

1. Garcia RA, Spertus JA, Girotra S, et al. Racial and ethnic differences in bystander CPR for witnessed cardiac arrest. *N Engl J Med*. 2022; 387(17):1569-1578.
2. Blewer AL, Starks MA, Malta-Hansen C, et al. Sex differences in receipt of bystander cardiopulmonary resuscitation considering neighborhood racial and ethnic composition. *J Am Heart Assoc*. 2024;13(5):e031113. doi. 10.1161/JAHA.123.031113