Reinforcing ethical principles and fostering a culture of accountability among minority STEM high school students in Brooklyn NY.

Background: The Arthur Ashe Institute for Urban Health (AAIUH), Health Science Academy (HSA), a STEM afterschool program located in Brooklyn, NY, seeks to develop a foundation of basic health science knowledge and leadership skills that support the successful pursuit of advanced education among minorities. A new workshop series, “Understanding the Importance of Ethics in Research” was implemented to reinforce and improve Academy student’s knowledge and awareness on the ethical principles.

Methods: This study evaluates the impact of the “Understanding the Importance of Ethics in Research” workshop series on Academy students’ knowledge and awareness of medical ethics. The two-session workshop series covered historically ethical concepts on the Belmont Principles, Tuskegee and Henrietta Lacks experiments. Pre-surveys were administered prior to the workshop series, and post-surveys were administered three weeks after. The changes in knowledge and awareness were measured with the Wilcoxon signed-rank test.

Results: Of the 113 students enrolled in HSA’s Academy, 77 completed both pre- and post-surveys. Of those, 45.5% were sophomores, 32.5% juniors, and 22.1% seniors. After the intervention: 40.3% were more knowledgeable on the three principles discussed in the Belmont Report, p <0.001; 45.5% were more aware of the unethical nature of the Tuskegee experiment, p <0.001; 93.5% understood the major ethical issues involved in the Henrietta Lacks case, p=0.016; 98.7% believe people are suspicious of researchers because of the Tuskegee and Henrietta Lacks experiments, p=0.034.

Conclusion: The Understanding the Importance of Ethics in Research workshops successfully reinforced Academy students’ knowledge and awareness of ethical principles, while fostering a culture of accountability through the mitigation of historical injustices. It is recommended that HSA integrates this workshop into its current curricula to develop culturally sensitive, competent healthcare professionals.