



## Streamlining Clinical Trials to Make Them Work for Everyone: A Conversation with Dr. Heidi Gardner

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As the world is still combating the COVID-19 pandemic through mass inoculations and finding the definitive treatment, studying medicine efficacy and safety in the human biological system has never been more important. Before any treatment is approved, clinical trials are done to ensure that the new intervention works for every member of society. This, however, is not often the case as there are still many external obstacles to equitable clinical trials.

The *Journal of Young Investigators* had the pleasure to chat with Dr. Heidi Rebecca Gardner, a clinical trial methodologist at the Health Services Unit, University of Aberdeen in Scotland where she contributes to [TRIAL FORGE](#), an overarching project that aims to make clinical trials more efficient through marginal gains across all trial processes. The project's well-rounded approach hosts different, smaller projects with specific aims that focus on either the recruitment process, the retention of trial participants, or the outcome collection. Under TRIAL FORGE, Dr. Gardner is currently leading the MERIT project which is about minority experiences in trials. The project is her first piece of grant funding where she is doing a quality of evidence synthesis from published works that discuss the way minorities are recruited to become trial participants. "This is a really important piece of work," she notes, as structural barriers and systemic racism in the United Kingdom might play a role in the process.

Every project she undertakes links into inclusivity in clinical trials. Trialists often leave out people without access to healthcare or those who do not believe in the healthcare system. Once the proposed intervention is found to work and rolled out into the community, it turns out "there is a whole [group of] people who can't take the treatment because it doesn't align with their value," explains Dr. Gardner. "It's not because of a biological system, but it's usually an acceptability issue or an accessibility issue," she adds. This leads her to complete her most rewarding project so far: the INCLUDE Ethnicity Framework. This project is an initiative run by the National Institute for Health Research (NIHR) to identify underserved groups in health research. Six months after finishing her PhD in 2018, she committed herself to this project. "It was a struggle to get off the ground. We didn't have any money because none of the funders were really interested in it," she recalls. Eventually, her then PhD supervisor—who is now her boss, got a COVID funding stream that fitted the project so it can continue. INCLUDE Ethnicity Framework is built around 4 key questions about the in-



volvement of participants and facilitating their involvement as much as possible. The framework is intended to be used through every stage of trial. While the buildup takes a lot of time to complete, Dr. Gardner reasons that it was the most high-impact and incredible project that she has been a part of because "in the UK, the average cost of a trial costs 1.6 million pounds. Putting in one day's work to make sure that trial serves the people that it should serve is a decent investment."

Though her work is centered around clinical trials, Dr. Gardner graduated in 2015 with a master's in science degree in pharmacology with industrial placement from the same institution she is currently working at. Her degree is a combination of undergraduate and master courses where she "took a year off before finishing the degree." When her cohorts were busy looking out for placements in pharmaceutical companies, it dawned on her that she was not particularly fond of working in a laboratory because she felt isolated in the lab. "I like to talk, I like to meet people and find out their stories," Dr. Gardner says. Initially questioned by the faculty, she was resolute in her decision to get a placement in a recruitment company focusing on life science. She was



a clinical resourcing specialist where she played as match-maker for industry trial investigators looking for staff, as well as healthcare professionals looking for additional income. Her placement allowed her to gather readily available nurses for the clients when, one day, the nurses told her that the trialists would not take them in because “the trials didn’t have enough participants to take part in, so they wouldn’t need the nurse to care for the people in the trial,” Dr. Gardner remarks. The whole experience made her ask “there’s a recruitment industry for staff, but is there a recruitment industry for participants in trials?” To find out the answer, she embarked on her PhD journey in Applied Health Science two months after she earned her MSci.

Outside of academia, Dr. Gardner is a dedicated science communicator and a business owner. During her education, she loved to contribute to various online platforms writing about evidence-based medicine and recruitment topics. Moreover, she was an initiator of soapbox science Aberdeen chapter where women in her area are given the spotlight on top of the wooden boxes to promote their scientific work in the middle of public spaces. She found doing presentations for different groups “was really good because it helps me to figure out the issues that clinical trials might have and I have the chance to really listen to them” says Dr. Gardner. Therefore, instead of disparaging people’s concerns, she learns to accommodate and incorporate those needs to make the trial recruitment process easier.

While promoting her own science, Dr. Gardner’s shop has been helping her to promote other people’s science. [Little Science Co.](#) (previously Science on a Postcard) is pushing for change on what a scientist should look like. The whole idea for her shop came from her experience being told by a stranger during her travels that she did not look like a scientist because she is blonde and wears makeup. It was the push she needed to start labeling herself, so “people wouldn’t have the opportunity to mislabel me before they speak to me,” she explains. During the two hours of her flight, she managed to set up an Instagram account and an Etsy shop to sell postcards. It was not long before her shop branched out to sell other accessories such as stickers and pin badges that send a message to anyone that scientists are diverse. Managing a business while also attempting to be a researcher is not an easy feat. She has experienced low points throughout the year, and in turn, she has “learned lessons around burnout and mental health and that kind of thing just to try and take it slowly.”

As population studies cover a wide area of subject, Dr. Gardner advises to “try everything that you have an interest in,” and once the niche has been carved out, it is important to “start saying no to the things that don’t fit in,” she adds. Picking up different skills along the way is valuable and helpful for students wanting to pursue population studies because “the breadth of people working in clinical trials and population science is massive, and that is really important because

the population is broad and we need people that have these different skills to come together and make things work.”