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WHY MINORITIES MAY MISTRUST DOCTORS AND HOW THIS IMPACTS COVID-19 VACCINE TRIALS

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ABSTRACT

As a kid, being afraid to go to the doctor is very common, but what may surprise you is that some adults can be just as scared of seeing the doctor as kids. While kids might be afraid of strangers or painful treatments, like a vaccination, adults might fear the idea of receiving bad news about their health. However, some people can be scared of the doctor for very different reasons. The United States has historically mistreated minorities in the field of medicine. This discrimination still exists in our modern healthcare system, causing some minorities to fear being mistreated by their doctor. Ongoing vaccination trials for Covid-19 greatly depend on having a diverse group of participants, so now more than ever doctors and healthcare professionals must prioritize reaching out to minority populations to begin mending this mistrust and fear, and you can help!

INTRODUCTION

There can be a lot of scary things that we fear in life. Sometimes, though, one of the things we fear the most is someone who is actually trying to help us. Perhaps this person works in a cold and unfamiliar office, uses sharp and scary tools, and speaks with words we do not understand. It's a medical doctor! Despite knowing doctors want to help us, many children are still afraid of visiting the doctor, a fear known as **iatrophobia (iat-ro-PHO-bia)**. **(This word is made up of the prefix *iatro-* that means *doctor* and the suffix *-phobia* that means *fear of a specific thing*)**. This fear is not just for kids, because some adults are afraid of the doctor too.

Figure 1. This historic photograph was created during the Tuskegee Syphilis Experiment, and depicts Eunice Rivers, RN, visiting a patient in a cotton field in Macon County, Alabama. Nurse Rivers was assigned to the study in 1932, and was the only staff member who remained through the study's 40-year period. This image is in the public domain. The caption and photo are from the Center for Disease Control.

One of the causes of **iatrophobia** is that some people only visit the doctor when they are sick. If you only go to the doctor when you are sick, the doctor's office is a place where you will probably always hear bad news. However, some people are scared of going to the doctor for very different reasons. For example, **minority groups**, or people who do not belong to the largest ethnic and racial group in a country, have reasons to fear the doctor based on historical events and misunderstandings. To understand these reasons, we first need to learn about the history of medical professionals mistreating minority patients in research.

EXAMPLES OF HARMFUL MEDICAL STUDIES ON MINORITIES

From the years 1932 to 1972, some doctors from the U.S Public Health Service in Alabama did a study now called the Tuskegee Syphilis Experiment on about 600 African American men (Fig. 1, Kennedy, Mathis, & Woods, 2007). The doctors promised these men free medical care in return for their participation in the study. Researchers were trying to figure out what happens to people who have a disease when they do not take any medicine. Can you spot the problem with this study already? The disease that these men had was called **syphilis**, and the doctors were only pretending to treat them. The sick men were given fake medicine, or what is called a **placebo**. The doctors knew the placebo would not help the sick men, but the men believed they were being treated. Sadly, the participants slowly lost their eyesight, their mental functioning, and even their lives. Even once a treatment called *penicillin* was available and known to treat syphilis in 1947, the doctors still did not give it to the sick men who were enrolled in the study. What the doctors did was very unethical, and because their plan was so awful, they chose to perform it on a group of African Americans that could not defend themselves in a society dominated by Caucasian people. This horrible situation happened, in part, because there were not enough ethical guidelines ruling experimentation in the medical community at the time to clearly prevent this kind of harm.

Unfortunately, the Tuskegee Syphilis Experiment was not a unique case. In the 1940's, 700 prisoners, soldiers, and mental patients from Guatemala were also purposefully given the same disease called syphilis (Rodriguez & García, 2013). However, those running the experiment did not tell the participants that they were going to get sick. A group of American doctors were testing the medicine called *penicillin* on these minorities in a very unethical way. This is another unfortunate reason that minority populations distrust doctors and researchers. This type of mistreatment can no longer directly happen to minority patients today, but the knowledge that it ever happened has had long lasting effects.

MODERN MISTREATMENT OF MINORITIES IN MEDICINE

Today minority patients continue to mistrust medical doctors due to fear of racism and fear of being experimented on (Jacobs, Rolle, Ferrans, Whitaker, & Warnecke, 2006). Minority patients might be correct to be suspicious of doctors because some Caucasian medical students really do hold false beliefs about black patients, such as believing the skin of black patients is thicker than the skin of Caucasian patients (Hoffman, Trawalter, Axt, & Oliver, 2016). Medical students who hold such false beliefs also assume a black patient is in less pain than a Caucasian patient and make a less accurate treatment recommendation for the black patient compared to the Caucasian patient. These types of studies are important to try and get rid of such false beliefs among medical doctors.

MODERN EFFECTS OF MINORITY MISTREATMENT IN MEDICINE

In order to find cures for diseases, scientists need to conduct research on people who are suffering from the disease, including testing out new medication on consenting volunteers to see if it prevents them from getting the disease. It is very important that the people who agree to be in these studies belong to a diverse group of people with different backgrounds, including minorities (Fisher & Kalbaugh, 2011). When scientists create a new kind of medicine, they must have minority participation in their studies in order to make sure that the medicine does its job for everyone, not just certain people. However, if minorities do not trust doctors and scientists, they are not going to agree to participate in research. The consequences of this are severe because, in turn, modern medicine may not be able to help minority patients to the same degree it can help Caucasian patients in treating very serious illnesses. This is extremely unfair because not only are the minority patients not being as effectively treated today as Caucasian patients, but the reason this happens traces back to Caucasians mistreating minority patients in experiments like the Tuskegee experiments.

MINORITIES IN CORONAVIRUS VACCINE TRIALS

It is easy to see how these issues matter in 2020, as scientists across the world are working around the clock to create a vaccination for Covid-19 (SARS-CoV-2, or coronavirus). In order for this vaccine to be distributed to people like you and me, it must be both safe and effective. To do so, scientists must go through vigorous research studying their prospective vaccines. As we said above, to make sure the vaccine is effective for minorities, scientists need minorities to volunteer for their vaccination safety studies. This is especially true for diseases like Covid-19, which causes minorities to be sick enough to be sent to the hospital at a rate of five times as frequent as Caucasians (Jaklevic, 2020). The healthcare community must make an effort to mend their broken trust with minorities by acknowledging the wrongs of the past and working toward better in the future. Some are suggesting that vaccine trials should ask well-respected leaders in minority communities to encourage participation, as well as hiring more minority vaccine researchers (Jaklevic, 2020) .

Some research is already reporting that minorities are unlikely to agree to even get the vaccine if one became available. When asked whether they would sign up to receive a coronavirus vaccine if one became available, only 54% of African Americans stated that they would or probably would, compared to 74% of Caucasian and Hispanic adults (Jaklevic, 2020) . It is easy to understand why African Americans feel this way. Due to the historical mistreatment of minorities such as the Tuskegee Experiment discussed above, minorities are hesitant to trust doctors doing Covid-19 research.

WHAT YOU CAN DO

Covid-19 has created a crisis with effects unlike anything the modern world has seen. However, there is hope in the fact that researchers are on the verge of producing a vaccination that works for everybody. Most doctors today work very hard to take care of all patients, but this is not to say that

there are no more racist doctors. If a doctor ever does makes us feel uncomfortable on account of our identity, it is important to talk to loved ones about the problem and think about switching doctors. We can also support increased access to healthcare so all people can choose a doctor who makes us feel comfortable. The sooner that doctors, researchers, and other healthcare professionals fix the mistrust once created among minority patients, the closer we are to defeating this pandemic. Who knows, maybe you will go to medical school and be a part of revolutionizing the way minority patients are treated!

GLOSSARY

Minorities: A person or a group of people who are discriminated against because of their differences (i.e. skin color, religion, culture, sexual identity, etc.)

Iatrophobia: A fear of visiting the doctor

Syphilis: A bacterial infection that results in sores, rashes, and if left untreated, organ damage

Placebo: An ineffective, or “fake”, medicine given to patients in medical studies to create a control group

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Claire Doshier I am a student at Vanderbilt University working toward a Spanish major while on the Pre-Medicine track. Some of my favorite topics of study include natural sciences like chemistry and

biology and international cultures. In the future I hope to travel while working as a doctor, which would combine all of these fascinating subjects. I grew up in the Ozark Mountains of Arkansas, so I enjoy getting away from the classroom every once in a while to hike, swim, run, and bike with friends and family.

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Ashleigh Maxcey is a Senior Lecturer and Research Assistant Professor in the Psychology Department at Vanderbilt University in Nashville, Tennessee, USA. She teaches classes on General Psychology, Cognitive Psychology, Experimental Psychology, and Positive Psychology. Dr. Maxcey has taught thousands of students since getting her Ph.D. and she has three kids of her own, so she is really interested in why people choke under pressure because she wants to help her students and her children succeed. Part of being a good student is juggling remembering and forgetting, which is what Dr. Maxcey studies in her laboratory at Vanderbilt. Dr. Maxcey loves traveling to present her research in cities around the United States like New Orleans, St. Pete Beach, and Philadelphia, as well as internationally to destinations such as Montreal, Rome, and L'Aquila, Italy. Outside of work Dr. Maxcey loves to cheer on the Vanderbilt Women's Basketball team and spend time with her family, two cats, and dog.