A Psychological Look into The Fear of Vaccines

Josiah B. King ‘23

Introduction

. As a human being living through the Covid pandemic, it is extremely likely that you or someone you know has received the covid. It is also very probable that you have observed different responses to the vaccine from different people but, have you asked yourself why is this the case? The answer may lie in the nocebo effect. The Nocebo effect is the worsening or onset of new symptoms due to a negative attitude towards treatment. It is similar to the belief of manifestation: thinking good thoughts will cause good things and vice versa. While the nocebo concept may seem to be a bit fanatical, like something out of a movie, statistics reveal that the nocebo effect is prevalent, especially in instances involving the covid vaccine. In previous covid clinical trials, the nocebo effect accounted for 76% of symptoms in experimental placebo groups after the first dose and 52% after the second (Haas et al). The Nocebo effect is not a superstition or an old wives' tale. It is a scientific mechanism supported by statistical analysis and an abundance of experimentation. In this article we will discuss how the Nocebo effect works, why it is important in the context of covid vaccines and how to use this information to your benefit.

What is the Nocebo Effect?

The nocebo effect has always existed but it was remarkably prevalent early on in 2020, when covid vaccines were first being released. Because of the uncertainty surrounding the covid vaccine, conspiracy theories and hidden motives crept into the minds of many people around the world. Professional athletes such as Kyrie Irving and Aaron Rogers, denounced the vaccine publicly (MSN). This had an immense impact on the public’s opinion on the vaccine because these athletes typically are the precedent of good health. If you’re favorite athlete doesn’t want to take a vaccine then you probably will think twice about taking it yourself. Any type of symptom following receiving the vaccine, whether a legitimate reaction or a nocebo, was also spread quickly across the world via social media. This extensive publication of a few rare instances undoubtedly made some adverse effects seem more likely than they actually were. All of these aspects together created a mass hysteria against the vaccine and plagued people with the anxious feelings that can trigger the nocebo effect.

How Nocebo Works

.How the nocebo works is a bit of a mystery due to a lack of experimentation on its mechanism. Because the nocebo effect is clearly a nervous center problem, it is difficult to study experimentally without running into ethical issues. The few experiments on nocebo have revealed the involvement of receptors called CCK-A and CCK-B. These receptors have also been linked to the body’s response to anxiety, which logically makes sense. It has also been established that the hypothalamic–pituitary–adrenal axis in the brain becomes hyperactive when the nocebo effect occurs (Benedetti). These experimental discoveries seem minor, but in neuroscience every discovery is an immense step in the right direction because the field is so difficult to study on a molecular level. Further experimentation in the field of neuroscience is hindered when considering the ethicality of the experimentation. Most tests used to derive valuable neurobiological information are extremely invasive. Scientists usually learn about functions of complex organs by damaging or removing a part of the active organ and observing what functions are hindered or cease to work altogether; This process allows scientists to accurately predict what each part of the organ does. Unfortunately, to pry and tinker with the active brain is extremely risky. The results could negatively affect the life of the test subject in a multitude of ways.

How to Prevent Nocebo

Although not much is known about how the nocebo effect works, there are still some actions you can take to prevent nocebo. One of the most effective things you can do is to avoid rumors and to research the facts for yourself. Social media and news article headlines often jump to conclusions and create false narratives. You should always make sure a source is reputable before even thinking about believing anything the source has to say. The next most beneficial thing you can do is to listen to your doctor. Physicians are trained to deliver beneficial and truthful information to their patients in a calming manner in order to prevent nocebo reactions.

Conclusion

Society's reaction to the Covid vaccine has exposed the strength of the nocebo effect. It is important to note that this article is not asserting that all adverse effects of covid vaccinations are a product of the nocebo effect. Instead, we hope to inform you that the nocebo effect can be accredited for a significant amount of side effects and can be limited by being mindful of where you receive your scientific and medical information.

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