Original Work Set-Up and Completion Summary

Objective

  For my original work, I wanted to gain a deeper understanding of anesthesia and how it interacts with the human body. I believe that understanding the potential risks of anesthesia is important to learn how to best improve current medicine in order to have the best outcome for patients. Additionally, I wanted to get a glimpse of what conducting research will be like in college, so looking deeper into different studies has been a great help teaching me what I will be doing soon too.

Methodology

  1). Materials:

The materials I used to complete this original work are based solely on information I gathered from online research and information. The case studies I looked at and the articles I analyzed were for the most part taken from either Makenvia or google scholar.

2). Procedures and Process:

My original work is mostly based on the new understanding I gained from my research assessments. I was really interested in this topic and enjoyed learning so much about it since it is not heavily researched. I also thought that information learned about how anesthetics interact with the brain would be helpful to know and apply to other avenues of anesthsia. That being said, my process was basically my weekly research assessment as well as some other research expeditions I went on during my own time. The two interviews I was able to go on also greatly helped my understanding of anesthesia and how it may affect people in different ways such as their behavior. My research kind of flowed from one study to another until I had an overall understanding of this topic.

Utilization of Higher-Level Thinking Skills

  At the end of the day, I think I could have done a better job translating all that I learned from my head to words on a paper. However, having all of my research written down in a transitional way helped me to see gaps in my understanding I did not realize were there. When writing a research paper, it is essential to link together all of what you have learned in a way that someone who never looked into your topic can understand and follow, this allowed me to challenge myself by trying to learn as much as I could in order to write about the topic properly. Moreover, learning about medical topics and terminology I never even heard of before was difficult at first, but at the end of the day greatly awarding. I have broadened my medical knowledge more than I ever could have imagined in such a short time frame.

Results
The results of my analysis of the two major case studies on this topic were not as conclusive as I had been expecting. There are a lot of confounding factors when dealing with if anesthesia itself directly causes long-term brain damage. Both of the studies I looked at showed different results, but I was able to compare them and challenge myself to understand how the studies were different and how these differences may have caused varying results. I am overall happy with everything I have learned and know that this kind of upper-level thinking and application will greatly benefit me in college.

Conclusions/Interpretations
      My own interpretation of what I learned was that more research still needs to be done. I personally like the way the first study I looked at, which was the most recent long-term study conducted, examined multiple factors, and used such a large population size. However, I also think the special chemical agents in the anesthetics used, which was looked at in the second study, can be an important factor in determining if anesthesia can cause an increased risk for dementia and if so, what specific chemicals cause this. At the moment, the two studies I examined are the only two long-term studies on this topic. This is why I personally think there needs to be more long-term research and data conducted before a definitive conclusion is reached.

Application/Meaning
      Although there are multiple articles and research done on this topic, the two case studies I examined are currently the only two major long-term ones on this potential issue. Because of that, this study can be used to help explain this topic and analyze the two case studies conducted thus far. Overall, understanding anesthesia and how it affects patients is very important to our understanding of how to best improve current anesthesia to produce the best results. I learned a lot of valuable information about anesthesia that I can apply to any other topic I chose to research. That is why this whole project was very important to my introduction into the medical field and has only deepened my passion for medicine.