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Writing For Sciences

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Cell Phone Usage: Effects on Brain Cancer

Abstract:

It has been identified that children and young adults may be more susceptible than adults to the potential adverse health impacts of mobile phone use. Given that adolescents and young adults are more likely to be on their phones than older adults, they are believed to have a higher chance of developing brain cancer. Therefore, there have been studies to allow scientists to understand the relationship between cell phones and brain cancer. This was done by using online surveys, cell phone records, and measuring electromagnetic fields, radio frequencies, and low frequencies with people who have already developed brain cancer. Researchers also used the death rates of individuals who died from brain cancer to find a link. Overall, research was inconclusive as to whether cell phone radiation causes cell phone radiation within all people.

Introduction:

High cell phone usage plagues society because of many people's dependence on them. Most people use cell phones for daily activities, such as bank deposits, GPS, online shopping, and games. With the high demand for cell phones, phone companies have been forced to increase wireless network data for faster and more satisfied customers (Mialon and Nesson, 2019). The increase in mobile networks to compete for customers has been linked to the development of brain cancer (Mialon and Nesson 2019). Brain tumors have been more closely linked to

teenagers and young adults because they are more likely to use their cell phones than older adults (Aydin et al. 2011; Castaño-Vinyals et al. 2022). This is an important topic because of the increased brain cancer rates in adolescents and young adults (Aydin et al. 201). Thus, it raises the question of how this occurred and what is the stemming problem. Research has supported that the increase in wireless network data from 4G to 5G causes extensive radiation emitted from cell phones (Mialon and Nesson, 2019). Overall, research has been inconclusive about whether cell phone radiation is a cause of brain cancer, but most of the research suggests that there is a possible connection between the two (Aydin et al. 2011; Mialon and Nesson 2019; Castaño-Vinyals et al. 2022).

Methods Of Research:

Age Group

Sorting research subjects by age group allows scientists to categorize the information. Almost all the participants in the studies were accompanied by an adult if they were under the age of 18 during the entire process (Aydin et al. 2011; Castaño-Vinyals et al. 2022). Scientists were more inclined to test whether there is a correlation between young people and wireless cell phones compared to older adults because of their more significant risk of developing brain cancer (Aydin et al. 2011; Castaño-Vinyals et al. 2022). The participants of the trials ranged from adolescents to young adults diagnosed with brain cancer, so their cell phone usage could be identified as the cause of the development of cancer (Aydin et al. 2011; Castaño-Vinyals et al. 2022). However, Mialon and Nesson (2019) believed that brain cancer and wireless cellphone were not only linked to young adults. They were more worried about discovering if there was a correlation between all people and mobile wireless phones. Although there were two age groups

used throughout the trials, 15 to 65 and 65 & up, it was not the guide for the research (Mialon and Nesson 2019).

Data Collection

The data collection differed because one method could be seen as more effective when assembling data. Scientists decided that use or phone records to determine the connection between adolescents and young adults and wireless mobile cell phones because it would help show how long they had their cell phone plans (Aydin et al. 2011; Mialon and Nesson 2019). Using phone records to collect data was the best method for scientists because it was the most accurate way to associate phone records with large groups of cancer patients (Mialon and Nesson 2019). However, to avoid possible bias against adolescent children they were asked how many times they've used their phones in the last couple of months because children often share phones with parents (Aydin et al. 2011). Participants of the study were also asked about the number of calls they made per day, which side of their head they probably like to use, and how long they would spend each day on the phone (Aydin et al. 2011; Castaño-Vinyals et al. 2022).

Scientists would also use death rates aside from live patients because it was another way to accurately confirm mobile phone subscription rates with brain cancer deaths (Mialon and Nesson 2019). It allowed for a steady understanding of the data because there would be a low margin of error in collecting the data (Mialon and Nesson 2019). The using of phone records was also a way for scientists to discover whether the participant had a 2G, 3G, 4G, or 5G because it was believed that the higher the data plan was, the higher amount of radiation was being emitted from the phone (Mialon and Nesson 2019). On the other hand, scientists tested participants' exposure to radio frequencies, electromagnetic fields, and low frequencies (Castaño-Vinyals et

al. 2022). Researchers believe that exposure to wireless phones, both mobile and cordless phones, mimics exposure to radioactive material such as electromagnetic fields (Castaño-Vinyals et al. 2022).

Emerging Findings

Researchers determined that regular users of mobile phones were not more likely to have been diagnosed with brain tumors than nonusers because exposure to even small amounts of radiation can significantly impact the development of brain cancer (Aydin et al. 2011). Scientists also discovered some connections between wireless phones and young adults. However, additional research must confirm the link between the two because the evidence is insufficient (Castaño-Vinyals et al. 2022). Lastly, it was determined that the study of 37 countries over 25 years showed no significant association between mobile phone use and brain cancer mortality rates (Mialon and Nesson 2019). The reason being because the significant time gap potentially affected the credibility of the data used throughout the study rates (Mialon and Nesson 2019).

Conclusion:

Cell phone radiation and cancer has been a circling idea because it's known that radiation is a factor of cancer. But it wasn't sure if the radiation being emitted from cell phones are the cause of the development of cancer within most people. Thus, research has been done to identify the connection between cell phones and cancer. Scientists have concluded that the evidence found throughout each study is inconclusive and further research is needed to determine the long-term phone use in all age groups, especially young adults (Aydin et al. 2011; Mialon & Nesson 2019; Castaño-Vinyals et al. 2022). Though it has been determined that further research

needs to be done to determine a larger connection between cell phones and radiation, the methods scientist use to identify the commonality should be more specific. If scientist decide to use evidence from the cell phone records of cancer patients, it should be from people who own their phone and don't share with someone because bias may arise. Instead, they should expose willing participants to the level of radiation that is being released from their phone to identify whether it increases the cancer in their system. Although it is a risk, it is the best way to be sure because it puts a direct connection between cell phone radiation and cancer.

Reference

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