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Writing For Sciences

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Cell Phone Usage: Effects on Brain Cancer

Abstract:

It has been determined that children and young adults may be more susceptible than adults to the potential negative health impacts of mobile phone use. Given that adolescents and young adults are more likely to be on their phone than older adults, it is believed that they have a higher chance of developing brain cancer. To identify whether the relation between cell phones and brain cancer exist, studies had to take place to allow scientist to synthesis the evidence they found. This was done by using online surveys, cell phone records, measuring of electromagnetic fields, radio frequencies, and low frequencies with people who already developed brain cancer. Researchers also used death rates of individuals who died from brain cancer to find a link.

Introduction:

High cell phone usage plagues society because of the dependence many people have on them. Majority of people use cell phones for their daily activities such as bank deposits, gps, online shopping, and games. With the high demand of the need of cell phones, phone companies have been forced to increase the wireless network data to allow for faster and satisfied customers (Mialon & Nesson, 2019). The increase in mobile network to compete for customers has been linked to the development of brain cancer (Mialon & Nesson 2019). More commonly, brain tumors have been linked to teenagers and young adults the most because they are more likely to use their cell phone more frequently than older adults (Aydin et al. 2011; Castaño-Vinyals et al.

2022). This is an important topic because of the increasing rates of brain cancer in adolescents and young adults (Aydin et al. 201). Thus, it raises the question as to how this occurred and what was the stemming problem. Research has supported that the increase in wireless network data from 4G to 5G causes an extensive amount of radiation to be emitted from the cell phones (Mialon & Nesson, 2019). Overall, research has been inconclusive regarding the idea that cell phone radiation is the leading cause in brain cancer while highlighting that there is a possible connection between the two (Aydin et al. 2011; Mialon & Nesson 2019; Castaño-Vinyals et al. 2022).

Methods Of Research:

Age Group

Sorting research subjects by age group is a way for scientist to categorize the information. Almost all the children in the were accompanied by an adult if 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 cellphones compared to older adults because of the larger risk of they have developing brain cancer (Aydin et al. 2011; Castaño-Vinyals et al. 2022). Patients apart of the trials were all adolescents to young adults with developed brain cancer already so that their cell phone usage could be used as a factor of determinacy (Aydin et al. 2011; Castaño-Vinyals et al. 2022). On the contrary, it was not all scientist believed that brain cancer and wireless cellphone was simply linked to young adults (Mialon & Nesson 2019). The scientists were more worried about discovering if there was a correlation between people and mobile wireless phones. Although two age groups, 15 to 65 and

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

Collection of Data

The collection of data differed because one method could be seen as more effective than the other when it came to assembling data. Scientist decided that using phone records to determine the connection between adolescents and young adults and wireless mobile cell phones because it would help discover if their phone records would show how long they had their cell phone plans for (Aydin et al. 2011; Mialon & Nesson 2019). The use of phone records to collect data was seen as the best method for scientist to use because it was the most accurate way to associate phone records to large groups of cancer patients (Mialon & Nesson 2019). However, to avoid possible bias with adolescent children because they were sharing phones with their parents, they were asked a series of questions regarding whether it was in the last couple of months (Aydin et al. 2011). Participants of the study were also asked 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). Additionally, scientist 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 & 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 & Nesson 2019). The using of phone records was also a way for scientist to discover whether the participant had a 2G, 3G, 4G, or 5G because it was believed that the higher your data plan was, the higher amount of radiation was being emitted from your phone (Mialon & Nesson 2019). On the other hand, scientist used the method of testing participants exposure to radio frequencies, electromagnetic fields, and low frequencies (Castaño-Vinyals et al. 2022).

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

Emerging Findings

Cell phone and Brain Cancer

Researchers determined that regular users of mobile phones were not more likely to have been diagnosed with brain tumors compared with nonusers because exposure to even small amounts of radiation can have a big impact on the development of brain cancer (Aydin et al. 2011). Scientists also discovered that there was some connection between wireless phones and young adults, but additional research would need to be done to confirm the link between the two because the evidence isn't substantial enough (Castaño-Vinyals et al. 2022). Lastly, it was determined that after the study over 37 countries over a 25-year period showed no significant association between mobile phone use and brain cancer mortality rates (Mialon & Nesson 2019). The reason being because the significant time gap potentially affected the credibility of the data used throughout the study rates (Mialon & Nesson 2019).

Conclusion:

Scientists have concluded that the evidence found throughout each study is inconclusive and further research is needed to determine the long-term phone use on all age groups especially young adults (Aydin et al. 2011; Mialon & Nesson 2019; Castaño-Vinyals et al. 2022).

Reference

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