Electromagnetic wave may hurt the human body

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INITIAL CLAIM

Q. What news report (or video which is less than 5 minutes) will this investigation focus on? (Provide citation and reference support.)

I. Mobile phone electromagnetic waves may incur physical and mental health risks (Qi-Xin, 2017).

Q. What is the initial claim presented in this article or video?

A. Electromagnetic waves that cell phones produce and use increase the chance of a person developing cancer in their body.

Q. What is one premise that supports the initial claim?

1. Electromagnetic waves from mobile phones can affect the human body.

Q. What evidence supports the premise?

a. In 2006, the World Health Organization released a new disease called ”Electromagnetic Hypersensitivity” that may affect the human central nervous system, immune system, cardiovascular, reproductive system, visual system (Chen, 2019).

b. According to the report of Yan of National Yi-Lan University, the participant who uses a mobile phone for a long time will experience more symptoms of physical discomfort, including dizziness, weariness, and headache (Yan, 2010).

Q. What is another premise that supports the initial claim?

2. Electromagnetic waves can increase cancer risk.

Q. What evidence supports the premise?

a. Israeli scientists pointed out that people who use mobile phones every day for several hours have a 50% higher chance of developing parotid gland cancer than those who don’t use mobile phones at all (Anonymous, 2008; Sadetzki et al., 2007).

b. According to a book called “Electromagnetic Waves and Human Health”, it mentioned there is an association between electromagnetic waves and childhood leukemia which is cancer of the body’s blood-forming issues (Feyyaz & Aysegl, 2011).

Q. What can be concluded from this information?

3. According to the information, we find that electromagnetic wave from cell phones produces could affect different body systems and increase the risk of cancer.

COUNTERCLAIM

Q. What news report, video or multiple information sources present a counterclaim (i.e., objection)?

II. Are electromagnetic waves terrible? The base station is out of communication, and the primitives are disturbed. (LIN, 2021)

Q. What is the counterclaim presented in this article or video?

A. Electromagnetic waves that cell phones produce and use does not increase the chance of a person developing cancer in their body.

Q. What is one premise that supports the counterclaim?

1. Its energy is not enough to affect humans.

Q. What evidence supports the premise?

a. The visible spectrum is 10^5 or higher energy than cell phones electromagnetic waves.

b. Einstein says: $E = h\nu$ in his paper "On the Electrodynamics of Moving Bodies". (Einstein, 1905)

Q. What is another premise that supports the counterclaim?

2. The relationship between electromagnetic waves and cancer has never been established.

Q. What evidence supports the premise?

a. The poster says: "It is Class 2B carcinogen". (IARC, 2013; WU, 2017)

b. Epidemiological evidence is limited, and animal experimental evidence is lacking. (HE, 2013)

Q. What can be concluded from this information?

3. It is not enough to affect humans, but do not reject it has a relationship between electromagnetic waves and cancer.

DISCUSSION

Q. What is your position toward the credibility of the information presented in the initial claim?

III. We thought this report's has low credibility. This information is provided by the Qi-Xin clinic, however, there is no strong academically supports.

Q. Is the source (e.g., person or organization) making the initial claim academically knowledgeable or experientially qualified in the field or subject area under examination?

A. No, the Qi-Xin clinic is just a health checking center, but they don't have the cancer experiential.

Q. Who else endorses the credibility of the information presented in the initial claim?

B. The Cellular Phone Use and Risk of Benign and Malignant Parotid Gland Tumors—A Nationwide Case-Control Study (Sadetzki et al., 2007).

Q. Is there an underlying intention to harm in the message/information in the initial claim?

C. No, they didn't want have any intention to harm any people. They just remind people to take care of it.

Q. What is your position toward the credibility of the information presented in the counterclaim?

IV. We thought the counterclaim has much credibilities to show that cell phones produce and use does not increase the chance of a person developing cancer.

Q. Is the source (e.g., person or organization) making the counterclaim academically knowledgeable or experientially qualified in the field or subject area under examination?

A. The author of this report (LIN, 2021) is a medical professor in UCSF and he published over 200 papers of medical researches.

Q. Who else endorses the credibility of the information presented in the counterclaim?

B. The famous physicist, Einstein, shows the formula of energy and electromagnetic wave relationship.

Q. Is there an underlying intention to harm in the message/information in the counterclaim?

C. Prof Lin. verified the myth of cell phones' electromagnetic wave, and he didn't want to harm people.

CONCLUSION

Q. From your perspective, what specific information presented in the initial claim or counterclaim is mis-, flip-, dis-, or mal-information?

V. The initial claim is mis-information.

Q. Why is the information mis-, flip-, dis-, or mal-information?

A. The initial claim didn't want to harm any people.

Q. What evidence from other source(s) supports this conclusion?

1. The report says that it is necessary to adjust the habit of using mobile phones to reduce the physical and mental health damage caused by mobile phones. Everyone in the mobile phone family should be concerned (Qi-Xin, 2017).

Q. Why else do you believe the information is mis-, flip-, dis-, or mal-information?

B. There is no any academical supporting this initial claim.

Q. What evidence from other source(s) supports this conclusion?

1. The definition of the WHO's 2B carcinogen is that epidemiological evidence is limited, and animal experimental evidence is lacking (HE, 2013).

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