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 Persuasive Essay

Recurrent headache has been reported to be affecting 14% of the American individuals. Several patients have reported that air pollution and weather changes have been significantly associated with the onset of headaches. Various researchers have shown that recurrent migraine has been significantly rising due to air pollution. Air contains carbon dioxide, smoke particles, nitrogen, and other harmful substances that have a strong impact on the health of people. Different regression analysis was performed by the researchers to utilize the data that can significantly identify the impact of air pollutants on headache or migraine. Global Burden of Disease Study has reported in the year 2016 that prevalence of headache and migraine-related disorders of 14.4%. It is reported from different surveys and interviews that air pollutants are the major reason for causing headaches and migraines among communities. The argument that air pollutants cause headaches and migraines is a tranquil that is under debate (*Air Pollution- Headaches- Causes- Prevention- Dr. Abhishek*). According to an estimate, the presence of CO, No2, O3, and PM10 are essentially reported as significant factors that cause headaches among the population. It has been reported that PM10 causes noteworthy changes in the body functions that cause headaches in high-temperature days.

Global warming and the rising temperature of the atmosphere are significantly affecting the health of people in various ways (Li et al.). Various studies have been conducted that have shown the positive effects of ambient air on the health of people. The humidity level of the environment is increasing in recent years belligerently. It has been reported traffic associated air pollutants, carbon monoxide and related harmful substances are strongly associated with the rise in migraines among communities. The arguments that air pollutants present in higher quantities in air are associated with the risk of headaches (Li et al.). The studies have been verified through various surveys and it has been observed that air pollutants and increased humidity levels in cold weather are linked with higher probabilities of headaches and migraines. It has been suggested that a higher level of ozone in the air is also associated with a strong impact on health (Lee et al.). The argument is true as a higher level of ozone in the air and its exposure to individuals with an estimate of 8 hours a day can have a significant effect.

Physicians and healthcare providers have recommended that various pollutants including ozone, carbon dioxide, and related pollutants can damage the health of people particularly resulting in headaches and onset and duration of headache varies (*Air Pollution- Headaches- Causes- Prevention- Dr. Abhishek*). Physicians have suggested that people should remain in homes to avoid exposure to air pollutants in the days of higher intensity of air pollutants. The substantial loss of health is due to the impact of air pollutants. It is true that air pollutants in days when are higher in intensities have a significant impact on health and can cause mild to severe headaches. Environmentalists have reported that air pollutants are associated with humans not only through the air but with water and foodstuff. Ingredients of pollutants present in foodstuff are associated with a higher level of health disastrous effects (*Air Pollution- Headaches- Causes- Prevention- Dr. Abhishek*). Several scientists and physicians have shown that environmental pollutants are linked with severe damaging effects on health including neurological functions of the body. Also, it causes inflammation, neurologic imbalances, and migraines (Lee et al.).

Ambient air pollution along with air pollutants are associated with the increase in health problems such as brain damage, Parkinson’s disease and migraines (Lee et al.). This is true that air pollutants cause headaches as various studies have been conducted on participants having a higher rate of direct or passive exposure with air pollutants. Study participants have reported that because of exposure they have suffered from migraines from mild to severe level (Lee et al.). The duration and onset of headache and migraines vary among participants because of age-related differences.

In a study, participants with migraine with 4406 days data was recorded that level of humidity and greater O3 was associated with the onset of higher probability of headaches among members (Li et al.). The argument remains under debate that how air pollutants can cause headaches among participants however, these are strongly associated with some mechanism that triggers changes in the brain and nervous system (Lee et al.). Various environmentalists have reported that the absorption of air pollutants inside the body through various routes can cause serious changes in the nervous system (Lee et al.). Different levels of air pollutants have been associated with significant changes in the body that altered the normal processes (Lee et al.). The studies that have shown that air pollutants particularly traffic associated pollutants have mild effects in causing migraines and headaches (*Air Pollution- Headaches- Causes- Prevention- Dr. Abhishek*). The arguments have been evaluated from other studies that air pollutants particularly ambient air such as higher levels of O3 has been significantly causing headaches.

A numeral of current studies scrutinized the relations among ambient air contaminants and appointments to emergency sections or hospitals and have established normally positive relations (Chen et al., 2015; Chiu and Yang, 2015; Dales et al., 2009; Lee et al., 2018; Szyszkowicz, 2008; Szyszkowicz and Porada, 2012; Szyszkowicz et al., 2009; Vodonos et al., 2015) (Li et al.). Though, the study presently conducted has not found any relationship between headaches and air pollutants unswerving with preceding large-scale research in the area conducted by Mukamal and colleagues in the year 2009. Although, the argument has been clarified by the study conducted by Hyewon Lee in 2018 that ambient air is directly associated with the onset of migraine and headache (Lee et al.). The study has significantly linked the relation of ambient air and headaches in the participants.

Researchers have found through various experiments by measuring air pressure, the presence of pollutants in the air that the quantity of pollutants in air varies in different weather. For example, air pollutants and ambient air humidity increases in cold weather. However, the effect of ambient air in causing headaches has been associated to be higher in cold weather. Air pressure significantly changes with the presence of air pollutants. The study conducted by Chen and colleagues in 2015 has confirmed the argument that air pollutants are strongly associated with the migraines. A numeral of studies scrutinized the relations among ambient air contaminants and migraines in participants and have established direct relations (Lee et al.). It has been found through various studies that pathogenesis of the migraines is still a complicated process however, air pollutants can cause migraines are valid arguments raised by researchers (Lee et al.). The arguments have not been appropriately justified by the study conducted by Mukamal and colleagues in 2009.

Various studies have identified the same results as the current study has evaluated the association of ambient air pollutants with migraines. The triggering factors are unknown, though the causes of migraines have been identified that have shown the consequences in favor of the study by confirming that air pollutants are the factors causing migraines. Various studies have shown the results in favor of the current study including Cull, 1981 and Hoffmann and the colleagues in 2011. The argument that states air pollutants are the reason behind the potential triggering event for the cause of migraine among individuals is true (Lee et al.). The current study has shown the opinions in supporting the argument and positive association has been found between migraines and air pollutants, particularly ambient air.

Gomersall and Stuart, 1973 and Hoffmann et al., 2011 have shown the results in support of the argument that ambient air has been associated positively with higher probabilities of hospitalization (Lee et al.). The study has also shown the results and opinions in views of the study conducted by Cull, 1981. Therefore, air pollutants are strongly associated in some way to cause migraines and headaches among the population (Li et al.). The route and mechanism of triggering the vent are unknown though it has been found that it is linked with physiological changes in the nervous system (Li et al.). Physicians have also confirmed that if air pollutants are present in higher amount particularly in cold weather, cases of migraines have been reported more in this weather.

To support the argument that ambient air is a causal factor behind headaches and migraines, the study conducted by Szyszkowicz, 2008 and Szyszkowicz and Porada, 2012 has similar results as the current study has declared. The favoring and positive association of ambient air and headaches have been found and confirmed through various studies. Therefore, the argument has supported in the current study in favor of the opinion (Li et al.). Ambient air and air pollutants have a higher intensity of components that can cause migraines through various changes in the physiological processes of the body. The level of carbon monoxide and sulfur dioxide along with the higher amount of traffic-related pollutants are rising the air. This has generated and produced the global warming effect in the environment.

Various human activities such as deforestation and urbanization have resulted in the environment severely damaged. Global warming and a higher level of production of greenhouse gases in the air have also polluted the air significantly. The argument for generating headaches and migraines along with other health associated problems among communities is somewhat true with the rising environmental problems (Li et al.). The climate has been significantly changed in recent years. Cold weather is severely cold and ice of the tops of the mountains is melting with time resulting in floods and overflows. Therefore, climate changes are linked to health issues among communities. These changes in the climate and environment are all associated with the argument that air pollutants are been associated with causing health problems including migraines and headaches.

**Conclusion**

Adverse climate changes, environmental pollution, and associated health issues among communities are linked strongly with each other. Rising health problems are associated with air pollution, water pollution and noise pollution (Li et al.). Different kinds of pollutions are linked with different kinds of disorders and therefore, the health of humans is drastically impacted. Climate and weather change is associated strongly with human health. As the study Szyszkowicz and Porada, 2012 and Szyszkowicz, 2008) have shown a positive association of ambient air and hospitalization supporting the argument significantly (Li et al.). The arguments and opinions from various studies have resulted in a strong association of the onset of headaches and migraines due to ambient air pollution and weather changes (Li et al.). The studies have found that ambient air is linked with causing severe migraines ranging from mild to chronic levels among individuals. The studies conducted by Szyszkowicz and Porada, 2012 and Szyszkowicz, 2008 and Cull in the year 1981, Gomersall and Stuart, 1973 and Hoffmann et al., 2011 have strongly suggested that ambient air pollution is linked in some way to cause migraines and headaches (Li et al.). Lung disease and related health issues have been also found to be due associated with air pollution. Hence, favoring the arguments, the current study has significantly evaluated and assessed the association of migraines with air pollution.

# Works Cited

*Air Pollution- Headaches- Causes- Prevention- Dr. Abhishek*. https://www.parashospitals.com/blogs/bad-air-causes-headaches-prevent/.

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