# Article information:

The interactive effects of ambient air pollutants-meteorological factors on confirmed cases of COVID-19 in 120 Chinese cities - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/33501581/>

# Article summary:

1. This study explores the association between ambient air pollutants (PM2.5, NO2, SO2, CO, and O3), meteorological factors (average temperature, diurnal temperature range, relative humidity, wind velocity, air pressure, precipitation, and hours of sunshine), and their interaction on confirmed case counts of COVID-19 in 120 Chinese cities.

2. Positive associations were found between the number of confirmed cases of COVID-19 and CO, PM2.5, relative humidity, and O3 after controlling for population migration. Negative associations were also found for SO2 and wind velocity both with and without controlling for population migration.

3. Air pollutants and meteorological factors had interactive effects on COVID-19 after controlling for MSI.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article is a well-researched piece that provides an in-depth analysis of the interactive effects of ambient air pollutants-meteorological factors on confirmed cases of COVID-19 in 120 Chinese cities. The authors have used a negative binomial regression analysis to account for potential migration effects by including the migration scale index (MSI) from Wuhan to each of the 120 cities included in the model. The results show positive associations between the number of confirmed cases of COVID-19 and CO, PM2.5, relative humidity, and O3 after controlling for population migration as well as negative associations between SO2 and wind velocity both with and without controlling for population migration. Furthermore, it was found that air pollutants and meteorological factors had interactive effects on COVID-19 after controlling for MSI.

The article is reliable as it has been published in a reputable journal (Environ Sci Pollut Res Int.) which follows rigorous peer review processes before publication to ensure accuracy and validity of research findings presented in articles published therein. Moreover, all data sources used are clearly stated along with detailed methods employed to analyze them which adds to its trustworthiness as readers can easily verify the accuracy of results presented in this article if they wish to do so by replicating the same methods used by authors themselves using available data sources mentioned in this article.

In conclusion, this article is reliable due to its thoroughness in terms of research methodology employed as well as data sources used which makes it trustworthy enough to be cited by other researchers working on similar topics or related fields such as epidemiology or environmental science etcetera

# Topics for further research:

* Negative binomial regression analysis
* Migration scale index (MSI)
* Air pollutants and meteorological factors
* Interactive effects of air pollutants
* Epidemiology and environmental science
* Replicating research methods

# Report location:

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