

Alzheimer's disease research papers omitting "mice" from titles linked to misleading media coverage

Study suggests relationship between how scientists communicate findings and how journalists report research to public

There is increasing scrutiny around how science is communicated to the public, yet the relationship between how scientists report their findings and how media reports it to the public has not been extensively studied. A study published in *PLOS Biology* by Marcia Trionfol at Humane Society International, in Washington, D.C. and Fabio Gouveia at Oswaldo Cruz Foundation in Rio de Janeiro, Brazil suggests that when authors of scientific papers omit that a study was conducted in mice and not humans from the article title, journalists reporting on the paper tend to do the same.

Alzheimer's Disease is an exclusively human condition that does not occur naturally in other species, yet around 200 rodent models have been developed to study it. News stories frequently lead with headlines omitting that Alzheimer's Disease research findings are based on research using mice, not humans. To test the hypothesis that how scientists report their research plays a role in the news reporting, researchers analyzed 623 scientific papers indexed in PubMed from 2018 to 2019 that used mice either as models or as the biological source for experimental studies in Alzheimer's Disease research. They then divided the papers into two groups, those that declared in their titles that mice were the main study's species and those that omitted mice from the paper's title. The authors analysed whether there was any difference between groups for the number of news stories each group of papers generated.

The researchers found an association between articles' titles and news stories' headlines, suggesting that journalists tend to follow authors' decision to omit the species studied in the paper's title. They also found that papers not mentioning mice in their titles receive more press coverage and are significantly more tweeted than papers that do. The study had several limitations, including that the articles analyzed were selected as a convenience sample that only included open access publications. Additionally, the article titles analyzed referred only to the topic of Alzheimer's Disease and the results cannot be generalized to other subject areas.

According to the authors, "To our knowledge, this is the first study to present scientific evidence that the way science is reported by scientists plays a role in how journalists report science news. News stories' headlines that omit mice as the main study subject may mislead the public regarding the actual state of affairs in Alzheimer's Disease research while they may raise false hopes for patients and their families".

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