Investigating the influence of media narratives on microplastics risk perception

November 2 2023

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In a world increasingly aware of the environmental challenges posed by microplastics, a study conducted by Ruxandra Malina Petrescu-Mag from Babes-Bolyai University, and published in *PeerJ Life &*

Environment, sheds new light on the impact of media narratives on public perception and awareness of microplastic risks.

Microplastics—tiny plastic particles that pollute both terrestrial and marine ecosystems—have garnered significant scientific, media, and public attention in recent years. However, this study reveals a lack of consensus between the scientific community and the media, particularly when it comes to how the risks associated with microplastics are portrayed and perceived over time.

The work, titled "The Influence of Media Narratives on Microplastics Risk Perception," addresses a critical need for a better understanding of the social aspects surrounding microplastics, including the factors that influence public awareness and risk perception.

In the quest for answers, the study pursued two primary objectives. Firstly, it investigated whether media narratives had an impact on the awareness of microplastics among the Romanian population. Secondly, it delved into the influence of media narratives on how Romanians perceived the health and environmental risks associated with microplastics.

In an online survey of 417 respondents from Romania, participants were asked a series of 21 questions designed to gauge their awareness of microplastics, their perception of the health and environmental risks, their exposure to media narratives regarding microplastics, and demographic information. The study then employed binary logistic regression to identify the specific media narratives that played a significant role in influencing awareness and risk perception.

Key findings of the study demonstrated that media narratives play a pivotal role in shaping public awareness. Notably, the media narrative "Microplastics in the sea threaten fish stocks" was found to significantly

influence the awareness of microplastics. This means that as the exposure to this narrative increased, so did the awareness of microplastics among the surveyed population. Additionally, the study observed that age had a positive correlation with increased awareness of microplastics, further emphasizing the influence of media in shaping public perception.

Moreover, the perceived health risk associated with microplastics was heavily influenced by the media narrative "Leakage of harmful chemicals from microplastics affects the soil." These findings underscore the growing importance of media narratives in shaping public awareness and perceptions of environmental and health risks. With the mass media's expanding role in shaping public perception regarding health and environmental issues, this study reaffirms the need for accurate and balanced reporting on microplastics.

The research suggests that providing the public with clear and accurate information on microplastic risks is crucial to combat misinformation and foster informed decision-making. Furthermore, by gaining a better understanding of public perceptions, it becomes possible to design targeted interventions to reduce plastic consumption, ultimately mitigating the risks associated with microplastic pollution, with profound benefits for both human health and the environment.

This study represents a significant step forward in understanding the dynamics of media narratives on microplastics. It offers a valuable foundation for future research and policymaking, as the world grapples with the increasingly pressing issue of plastic pollution.

More information: The influence of media narratives on microplastics risk perception, *PeerJ* (2023). DOI: 10.7717/peerj.16338

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