
Public knowledge of microplastics for pro-environmental behavior

Eva Garcia-Vazquez*¹ and Cristina Garcia-Ael²

¹Garcia-Vazquez – Universidad de Oviedo, Spain

²Garcia-Ael – Universidad Nacional de Educación a Distancia, Spain

Abstract

Microplastics are currently threatening natural resources and human health. Despite their global ubiquity as an emerging contaminant, they are invisible to the human eye thus their public perception depends on external information, not on the own experience. In this study we have analyzed relevant literature employing qualitative contingency statistics and clustering of relevant terms to understand what is needed to transform current microplastic consumption behavior. Consumer's knowledge of microplastics was directly associated with the willingness to adopt a pro-environmental behavior regarding microplastics; in contrast, the perceived risk and control were apparently less important. Significant geographical gaps and differences between cultures were identified. Based on these analyses and on the detected research gaps, we recommend to create geographically wide, cross-cultural baselines of public knowledge about microplastics, to design ad-hoc interventions for their control. The role of environmental values as mediators between knowledge and behavior against microplastics should be explored, as well as the perspective of the industry, politicians and journalists. The improvement of scientific communication about this emerging pollutant would help to introduce the topic in formal and non-formal education settings.

Keywords: Microplastics control, Knowledge, Risk perception, proenvironmental behavior

*Speaker