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Short and Long-Term Impacts of Biotechnology Education on Professionals Who Communicate Science to the Public

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ABSTRACT

Consumer acceptance or rejection of biotechnology is often shaped by information prepared by communicators with varying levels of scientific knowledge, awareness, and acceptance. This study compared the prior, post-workshop, and sustained (1 year) biotechnology awareness, acceptance, and attitudes of professionals who communicate biotechnology to the public at an informational, day-long, university-sponsored workshop. Thirty-seven participants completed the three rounds of data collection. They consistently rated their scientific knowledge high. Throughout the three rounds, their primary media source of biotechnology information was newspapers, with the web being the second most frequently cited source. Participants were somewhat accepting of genetic modification of microorganisms, forests/landscape plants, and food crops, but were somewhat unaccepting of genetic modification of animals and humans. Fear of genes moving unchecked to other plants, insects, or microorganisms; fear of environmental harm; and fear of food safety consequences were identified as obstacles to their acceptance of food biotechnology. Participants were most confident with statements related to biotechnology from university scientists and health professionals and least confident with statements from celebrities. They saw their professional role in providing analysis and interpretation regarding desirable and undesirable consequences of biotechnology as important. Although the study participants were professionals, their awareness and attitudes toward biotechnology were similar to consumer awareness and attitudes measured in previous studies. It is important that university scientists provide unbiased, research-based biotechnology information to those who communicate biotechnology to the public (e.g., through workshops, websites, etc.) and accommodate learners with varying levels of scientific knowledge, because these communicators will affect consumer attitudes.

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