Abstract

Bisphenol A (BPA) is a widely used chemical in plastic production and food packaging, raising concerns due to its potential endocrine-disrupting effects and associated health risks. This study examines the relationships between awareness, knowledge, and risk perception in influencing attitudes and behaviors concerning BPA exposure. The research employs a quantitative survey methodology to assess how societal perceptions of BPA shape regulatory support and individual preventive actions. Findings indicate that while awareness and knowledge contribute to shaping attitudes, risk perception plays a more significant role in driving behavior change. Individuals who perceive BPA as a high-risk substance are more likely to adopt precautionary measures, supporting the Health Belief Model and the Theory of Planned Behavior. However, knowledge alone does not directly translate into behavior change, emphasizing the need for targeted interventions that enhance risk perception and self-efficacy. The study highlights demographic factors such as age, gender, and socioeconomic status in shaping risk perceptions and behaviors. Policy recommendations include mandatory BPA-free labeling, stricter regulatory frameworks, public awareness campaigns, and subsidies for safer alternatives. Addressing the knowledge-behavior gap through multi-faceted public health strategies is crucial in mitigating BPA-related health risks. Future research should explore longitudinal impacts of risk perception and behavior change over time to develop more effective intervention models.

Keywords: Bisphenol A, awareness, knowledge, risk perception, attitude, behavior