

Peer Review

Review of: "Human Health Risks from Textile Chemicals: A Critical Review of Recent Evidence (2019-2025)"

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Weaknesses and Suggestions for Improvement

1. Structural Density and Synthesis Needs

Although the manuscript is impressively comprehensive, it occasionally overwhelms the reader with technical data presented in rapid succession. To improve clarity, the authors should summarize key findings for each chemical group more concisely by adding visual tools, such as summary tables or flowcharts.

2. Critical Appraisal of Evidence

While the review draws on extensive literature, its critical depth would benefit from clearer distinctions between in vitro, animal, and human studies to better contextualize the strength of evidence for risk assessment.

3. Exploration of Mixture Toxicity

Although the manuscript evaluates single-compound risk frameworks, it would be strengthened by a deep exploration of novel methods for mixture toxicity, such as PBPK modeling and cumulative risk assessment.

4. Readability and Organizational Structure

Parts of the "Results" section lack narrative cohesion and would benefit from clearer subsections or bullet summaries to enhance accessibility for interdisciplinary readers.

5. Methodological Transparency

The section explaining how the literature was searched is quite brief. Adding more details about

which studies were included or excluded, and using a PRISMA-style flowchart, would make the process clearer and easier to follow.

Minor Points

A few abbreviations (e.g., TDI, HQ, EDIs) could be more consistently defined upon first use.

Recommendation:

Minor Revision

This manuscript provides a valuable overview of recent advances in textile toxicology and human health risks. With improvements to structure, clarity, and critical analysis, it could become a key reference for both scientific and regulatory communities. I recommend acceptance after minor revisions focused on rearranging, methodology, and synthesis.

Declarations

Potential competing interests: No potential competing interests to declare.