Supplementary Information (SI) for Environmental Science: Advances.


**Table S4-1**. Level of correct actual knowledge on general characteristics and hazards of plastics, microplastics, and nanoplastics, stratified by risk perception groups. Mean value and standard deviation of scores values from -1 (min correctness) to +1 (max correctness).

| | **Group 1 (29)** | **Group 3 (20)** | **Group 4 (178)** | **Sign.[a]** | **Sign.[b]** | **$(\eta_H^2)$ Effect size[c]** |
|---|---|---|---|---|---|---|
| P1 - Plastics, overall characteristics | 0.66±0.28 | 0.63±0.29 | 0.61±0.26 | n.s. | - | 0.006 |
| P2 - Plastics, advantages | 0.61±0.28 | 0.53±0.47 | 0.57±0.35 | n.s. | - | 0.001 |
| P3 - Plastics, disadvantages | 0.49±0.35 | 0.30±0.42 | 0.49±0.32 | n.s. | G3 vs G4 ($p<0.05$) | 0.014 |
| P4 - Plastics, pittogrammes | 0.38±0.41 | 0.15±0.43 | 0.34±0.42 | n.s. | G1 vs G3 ($p<0.05$)<br>G3 vs G4 ($p<0.05$) | 0.021 |
| MN1 - MPs/NPs, definition and sources | 0.53±0.38 | 0.56±0.39 | 0.59±0.32 | n.s. | - | 0.002 |
| MN2 - MPs/NPs, contaminated environmental matrices | 0.66±0.40 | 0.56±0.35 | 0.68±0.30 | n.s. | - | 0.009 |
| MN3 - MPs/NPs, contaminated foods | 0.36±0.43 | 0.44±0.48 | 0.52±0.39 | n.s. | G1 vs G4 ($p<0.05$) | 0.017 |
| MN4 - MPs/NPs, human exposure and general toxicity | 0.56±0.29 | 0.53±0.39 | 0.68±0.30 | $p<0.05$ | G1 vs G4 ($p<0.05$)<br>G3 vs G4 ($p<0.05$) | 0.028 |
| MN5 - MPs toxicity for organs and body systems | 0.41±0.27 | 0.35±0.29 | 0.43±0.28 | n.s. | - | 0.006 |
| MN6 - NPs toxicity for organs and body systems | 0.31±0.28 | 0.46±0.32 | 0.44±0.29 | n.s. | G1 vs G3 ($p<0.05$)<br>G1 vs G4 ($p<0.05$) | 0.021 |
| MN7 - MPs/NPs, risk of carcinogenicity | -0.31±0.59 | -0.69±0.63 | -0.44±0.64 | n.s. | G1 vs G3 ($p<0.05$)<br>G3 vs G4 ($p<0.05$) | 0.023 |

[a] Kruskal-Wallis non-parametric test (comparison of three or more independent groups)

[b] Dunn test with Benjamini-Hochberg's correction (non-parametric post-hoc test for pairwise comparison)

[c] Eta squared effect size ($\eta_H^2$) on Kruskall-Wallis test:
≥0.01 small
≥0.06 medium
≥0.14 large

**Table S4-2**. Use of different source to learn about health and environmental risks: % proportion of interviewed using 'often' each source stratified by risk perception groups.

| | **Group 1 (29)** | **Group 3 (178)** | **Group 4 (20)** | **Sign.[a]** | **Effect size[b]** |
|---|---|---|---|---|---|
| TV | 24.1% | 60.0% | 40.9% | p<0.05 | 0.169 |
| Radio | 10.3% | 53.3% | 15.0% | p<0.001 | 0.274 |
| Social network | 67.9% | 78.9% | 69.1% | n.s. | 0.063 |
| Websites | 75.9% | 70.0% | 69.8% | n.s. | 0.045 |
| Newspapers | 3.4% | 52.6% | 26.8% | p<0.01 | 0.264 |
| Specialized journals | 25.0% | 33.3% | 25.0% | n.s. | 0.053 |
| Books | 24.1% | 33.3% | 23.4% | n.s. | 0.065 |
| Seminars | 24.1% | 22.2% | 11.9% | n.s. | 0.137 |
| People | 31.0% | 50.0% | 32.5% | n.s. | 0.106 |

[a] Significant at Fisher's exact test

[b] Cramer's V effect size:
≥0.10 small
≥0.30 medium
≥0.50 large

**Table S4-3**. Possible public strategy or technology solutions regarding plastic that the governments should adopt: % proportion of interviewed approved each solution ('YES' response option) stratified by risk perception groups.

| | Group 1 (29) | Group 3 (178) | Group 4 (20) | Sign.[a] | Effect size[b] |
|---|---|---|---|---|---|
| Solution 1 - Use alternative materials instead of plastic whenever possible | 85.7% | 80.0% | 98.9% | p<0.001 | 0.315 |
| Solution 2 - Make plastic products lighter to reduce their overall quantity | 71.4% | 85.0% | 77.1% | n.s. | 0.074 |
| Solution 3 - Use biodegradable plastic | 85.2% | 80.0% | 86.9% | n.s. | 0.058 |
| Solution 4 - Promote separate collection and recycling of plastic | 85.7% | 90.0% | 97.2% | p<0.05 | 0.189 |
| Solution 5 - Encourage technologies for remediation of natural environments | 100.0% | 85.0% | 96.0% | n.s. | 0.172 |
| Solution 6 - Offer free reusable bags | 71.4% | 75.0% | 73.9% | n.s. | 0.020 |
| Solution 7 - Ban the sale of plastic bags | 67.9% | 85.0% | 79.4% | n.s. | 0.105 |
| Solution 8 - Educate the people | 92.9% | 90.0% | 98.9% | p<0.05 | 0.187 |
| Solution 9 - Improve water purification technology | 89.3% | 85.0% | 90.8% | n.s. | 0.056 |

[a] Significant at Fisher's exact test

[b] Cramer's V effect size:
≥0.10 small
≥0.30 medium
≥0.50 large