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Corrigendum: The effects of creatine supplementation on cognitive function in adults: a systematic review and meta-analysis

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KEYWORDS

creatine, cognitive function, brain health, neuropsychological tests, randomized controlled trials

A Corrigendum on

The effects of creatine supplementation on cognitive function in adults: a systematic review and meta-analysis

by Xu, C., Bi, S., Zhang, W., and Luo, L. (2024). *Front. Nutr.* 11:1424972.
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In the published article, there was an error due to a translation from Chinese to English. A correction has been made to **Results**, *Section 3.4.3 Attention*, paragraph one.

The paragraph previously read as: “The meta-analysis results (Figure 6) indicate that creatine supplementation does not have a significant impact on attention. Four studies, encompassing a total of 128 participants, assessed the potential effects of creatine supplementation on attention. The combined analysis shows an overall SMD of 0.22 (95% CI: -0.40 to 0.84), with a heterogeneity (I^2) of 61% and a Z-value for the overall effect test of 0.69 ($p = 0.49$). Additionally, Hedges’ g is 0.2129 (95% CI: -0.1346 to 0.5604). This indicates that, although individual studies show varying degrees of effect, creatine supplementation does not have a significant positive impact on attention when considered as a whole.”

The corrected paragraph appears below:

“The meta-analysis results (Figure 6) indicate that creatine supplementation does not have a significant impact on attention scores. Four studies, encompassing a total of 128 participants, assessed the potential effects of creatine supplementation on attention scores. The combined analysis shows an overall SMD of 0.22 (95% CI: -0.40 to 0.84), with a heterogeneity (I^2) of 61% and a Z-value for the overall effect test of 0.69 ($p = 0.49$). Additionally, Hedges’ g is 0.2129 (95% CI: -0.1346 to 0.5604). This indicates that, although individual studies show varying degrees of effect, creatine supplementation does not have a significant positive impact on attention scores when considered as a whole.”

In the published article, there was an error due to the translation from Chinese to English. A correction has been made to **Results**, *Section 3.4.5 Processing speed*, paragraph one.

The paragraph previously read as: “The meta-analysis results (Figure 9) indicate that creatine supplementation does not have a significant impact on processing speed. Four

studies, encompassing a total of 104 participants, assessed the potential effects of creatine supplementation on processing speed. The combined analysis shows an overall SMD of 0.01 (95% CI: -0.38 to 0.40), with a heterogeneity (I^2) of 0% and a Z-value for the overall effect test of 0.04 ($p = 0.97$). Additionally, Hedges's g is 0.0097 (95% CI: -0.3764 to 0.3958). This indicates that, although individual studies show varying degrees of effect, creatine supplementation does not have a significant positive impact on processing speed when considered as a whole."

The corrected paragraph appears below:

"The meta-analysis results (Figure 9) indicate that creatine supplementation does not have a significant impact on processing speed scores. Four studies, encompassing a total of 104 participants, assessed the potential effects of creatine supplementation on processing speed scores. The combined analysis shows an overall SMD of 0.01 (95% CI: -0.38 to 0.40), with a heterogeneity (I^2) of 0% and a Z-value for the overall effect test of 0.04 ($p = 0.97$).

Additionally, Hedges' g is 0.0097 (95% CI: -0.3764 to 0.3958). This indicates that, although individual studies show varying degrees of effect, creatine supplementation does not have a significant positive impact on processing speed scores when considered as a whole."

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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