

Is the intention to use sport supplements a predictor of placebo and nocebo responding among athletes?

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Background: Placebo and nocebo effects have been observed in relation to many interventions in sport. Given variance in response, a key question is whether individual difference variables identify likely 'responders.' Hypothetically, such a variable might be the person's intention to use the intervention. We aimed to explore relationships between athletes' intention to use sport supplements and their responses to a placebo/nocebo intervention. **Methods:** Participants completed a single-item measure of intention to use sport supplements ('intending', 'undecided' or 'not intending') prior to 5×20-m sprints. Participants were then randomised to Placebo (n=219), Nocebo (n=168) and Control (n = 134) conditions. Participants in Placebo and Nocebo conditions were administered a capsule deceptively presented as a sport supplement that would have a positive (Placebo) or negative (Nocebo) effect on performance. Controls were provided with no instructions and received no capsule. After 20 minutes, all participants completed another set of 5×20-m sprints. **Results:** Among 'intending to use' participants, the Placebo treatment was associated with faster times than the Nocebo treatment ($P=0.023$, Cohen's d [d]=0.34). In the Placebo treatment, 'intending to use' participants were significantly faster than 'not intending to use' participants ($P=0.004$, $d=0.49$), as were 'intending to use' participants in relation to 'undecided' participants in the Nocebo treatment ($P=0.044$, $d=0.44$). No significant differences in performance by intention were observed in the Control condition. **Conclusions:** Placebo and nocebo responses appear to be mediated by the participant's intention to use supplements. These findings have value in explaining placebo/nocebo responses, and should be tested in clinical medical settings.