

## Is there a role for implicit and explicit information about placebo and nocebo effects in reducing the use of drugs in sport?

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**Background:** The gateway hypothesis posits that the use of sport supplements by athletes can lead to the use of banned and possibly harmful performance-enhancing drugs. Previous data suggest that athletes implicitly exposed to a placebo intervention and/or explicitly informed about the role of placebo effects in sport may be less likely to use sports supplements, and therefore - in line with the gateway hypothesis - less likely to progress to drugs. **Methods:** Participants (n=629) completed the Sports Supplements Beliefs Scale (SSBS), Performance Enhancement Attitude Scale (PEAS) and a Likert-type scale measuring intention to use sports supplements. They were then randomised to Placebo (n=263), Nocebo (n=209) and Control (n=157). All participants completed a performance trial (see Hurst et al., this conference). Placebo and Nocebo participants subsequently received the results of the trial as well as a brief educational session describing the role of placebo/nocebo effects in sports performance. Controls received no information. All participants re-completed the questionnaires. **Results:** Analyses indicated that following the intervention, beliefs ( $P=0.009$ , Cohens  $d [d]=0.43$ ), attitudes ( $P=0.047$ ,  $d=0.29$ ) and intentions ( $P=0.020$ ,  $d=0.33$ ) relating to the use of drugs and sport supplements were significantly lower in the Placebo and Nocebo group compared to Controls. **Conclusions:** Implicit exposure to a placebo/nocebo intervention and explicit exposure to a brief educational intervention about placebo effects influenced athlete's beliefs, attitudes and intentions about drugs and sport supplements. Given the gateway hypothesis, experience of, or education about the placebo and nocebo effect may prevent athletes transitioning towards doping.