

The Effects of an Additive Component With Coping Techniques in Dealing With Pressure in Athletics

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Background

Improving athletic performance is a primary focus in sport psychology. This is particularly true when helping athletes cope with stress. Various coping techniques have been developed in hopes of improving performance under pressure (Prapavessis et al. 2019). For instance, self-talk can increase motivation and confidence (Weinberg & Gould 2015). Similarly, visualization has been shown to be effective at improve performance (Smith et al. 2008).

However, to date, little research has examined the effects of implementing multiple techniques or their interactions with each other. This pilot study attempts to address these shortcoming by investigating if coping techniques interact additively when used together.

Methods

Each participant was randomly assigned to one of the four training groups:

1. Control - The control group watched a short video on proper putting form.
2. Self-talk - The self-talk group was instructed to construct their own phrases following the idea of motivational positive self-talk. This involves self-talk that does not pertain to a specific activity and boosts the individual's self-confidence.
3. Visualization - The visualization group went through a visualization training following the PETTLEP model. This model includes the physical movement, environment, task, timing, learning the movements, emotions, and perspective. Participants were asked if they had any questions about putting form. They were then instructed to stand in their putting form over the starting point. They were then told to swing the putter as though they were going to hit a ball.
4. Hybrid - The hybrid group went through both the self-talk and visualization training.

Procedure

Pre-Pressure

They were instructed to putt 20 golf balls at a mark on the carpet floor with the intent of landing the golf ball on the mark. Out of the 20 putts, the last five were measured to account for the practice effect.

Pressure

Participants were told to utilize what they learned while putting another 20 balls. However, this time they would be videotaped from two cameras and the tapes would be given to golfers on the university team to code.

Individual Difference Measures

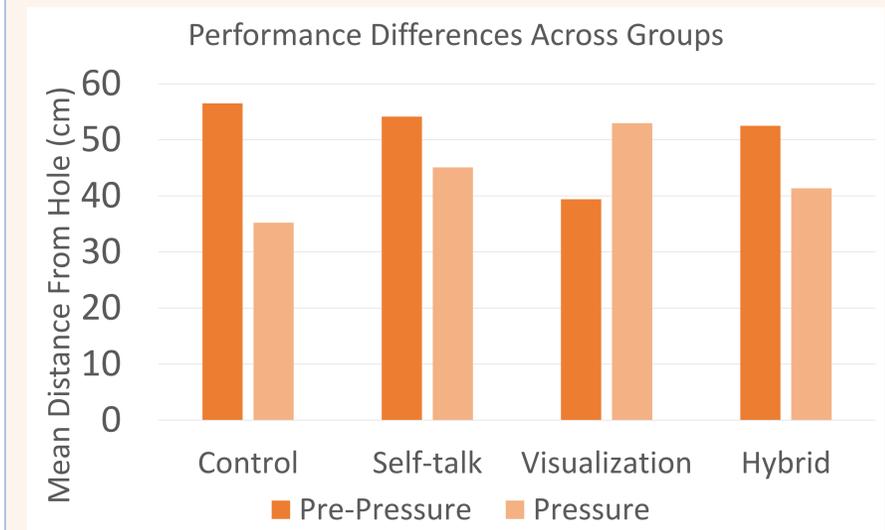
There were no videos taken as this was the means by which pressure was being induced. All putts were measured and participants filled out 3 surveys: MAAS, BAQ, and STAI.

Results

A mixed-model repeated measures ANOVA was used to analyze the data. There was a total of 10 participants (Control N = 2, Self-talk N = 3, Visualization N = 2, Hybrid N = 3). There was no effect of condition or group, $F(1,6) = 1.94, p = .213, \eta^2_p = .244$ and $F(3,6) = 0.06, p = .979, \eta^2_p = .029$, respectively. Additionally, analyses indicated no significant interaction between condition and group, $F(3,6) = 1.82, p = .244, \eta^2_p = .476$.

Group	Pre-Pressure	Pressure
Control	56.5 cm	35.2 cm
Self-talk	54.1 cm	45.1 cm
Visualization	39.4 cm	53.0 cm
Hybrid	52.5 cm	41.4 cm

Visualization showed a visible average decrease in distance in the pre-pressure setting compared to during the pressure .



Discussion

Trends in putting performance indicated that coping strategies may have facilitated participants' ability to perform in under pressure. In fact, visualization participants performed better in the pressure context than the no-pressure context. Given that a similarly increase was not observed in the other conditions it is unlikely that this increase is a result of practice effects.

It is worth noting that even though participants in the self-talk condition showed an absolute decline in performance, this decrease was less than control participants suggesting some benefit to this strategy.

However, the combined effects of multiple strategies was not superior to the use of individual strategies. Based on the similar trends observed for self-talk and hybrid participants, it may be that participants relied primarily on only one strategy even though multiple strategies were presumably available. It is unclear whether this similarity reflects an underlying preference for self-talk over visualization or whether employing multiple strategies was to cognitively demanding. Future research should explore these alternatives by increase training and/or include non-amateur athletes.