Thinking about errors may foul up athletes

By Merritt McKinney

NEW YORK, Sep 27 (Reuters Health) - Athletes who think too much about missing a shot may end up hurting, not helping, their game, the results of a new study suggest.

In a study of novice golfers, researchers found that frequently visualizing negative images--overshooting or undershooting the target--before putting had a negative effect on putting performance, even when putters tried to counteract the images with positive thoughts.

"The effects of positive imagery are still up in the air," according to Dr. Sian L. Beilock, a cognitive psychologist at Michigan State University in East Lansing.

"Positive imagery did not benefit performance in comparison to a control group who received no imagery instructions prior to performance in our study," she told Reuters Health in an interview.

But based on the study, "negative imagery has a negative effect on performance," she said.

However, Beilock stressed that the effects of imagery may differ when performed during practice, rather than during actual competition, when the stakes are higher. The effects of imagery may also be different in professionals than in amateurs, she noted.

"I don't want to say that imagery is not important for amateur athletes," Beilock said. But "imagery itself is a skill," she explained. "It's something that has to be practiced along with the physical skill."

Beilock and her colleagues tested the impact of imagery on the ability to putt a golf ball towards a target. None of the college students who participated was an experienced golfer.

A "control" group of students was not instructed to visualize any images before performing a series of putts.

The remaining students were instructed to visualize one of three types of imagery. The positive imagery group was supposed to visualize putting the golf ball into the "hole," in this case a taped off target on the floor.

Students in the suppression imagery group were also told to visualize a successful putt, but they were also instructed not to visualize either overshooting or undershooting the target.

The third type of imagery, suppression-replacement imagery, included the same instructions as suppression imagery, but students were also told that if they visualized undershooting or overshooting the target, they should immediately visualize putting the ball into the target zone.

For each type of imagery, there was a group instructed to visualize before each putt and another told to do so before every third putt.

The putting performance of students in the positive imagery groups improved, regardless of whether they visualized before every putt or before every third putt.

But frequently trying to suppress negative images did not do much for participants' golf game, researchers report in the Journal of Sport and Exercise Psychology.

The putting of those who visualized before every putt actually worsened, even when they were told to visualize a positive replacement image.

"There is a common understanding among athletes that thinking too much about a particular flaw in one's performance can backfire, making the performance even worse," according to the authors. The results support this idea, they note.

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