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## Edu-Exergames: Emerging technologies for supporting the healthy aging for older adults

Francesco Sgrò

Kore University of Enna, Italy

The promotion of physical activity in old age has become increasingly important in a society characterized by a significant increase in life span. However, there are many scientific evidences and institutional testifying that numerically limited older adults adopted a physically active lifestyle. In this scenario, emerging technologies in the entertainment domain seem to be useful in order to promote a healthy aging process and to change the negative trend relative to the levels of physical activity in all age groups, including the elderly. In this scenario the exergames are serious games where the players need to move their body for interacting with the virtual game. The exergames are safe and feasible, and their players resulted with an increase on their physical activity levels. These technologies have been proposed for supporting a regular daily exercise, post-stroke rehabilitation, heart failure and depression prevention in older adults. Moreover, several controllers used by these games have been investigated as clinical tools for assessing movement skills as sit-to-stand and postural stability. The edu-exergames target specific serious games where the standard games are improved with set of exercises aiming to promote the fundamental movement skill over life span. These emerging technologies support the promotion of physical activity in old age and are indicated as in-field low-cost assessment instruments.

[francesco.sgro@unikore.it](mailto:francesco.sgro@unikore.it)

## The study of methods to reduce anxiety in athletes

Gholamreza Zourmand<sup>1,2</sup> and Wang Changsheng<sup>1</sup><sup>1</sup>Central China Normal University, China<sup>2</sup>Islamic Azad University, Iran

**Background:** Often seen athletes are with high athletic abilities in sports because they have anxiety and cannot present his abilities in exercising anxiety pressure on the muscles which caused severe contraction and reduction in their power and accurately done skills. Therefore, the effect of anxiety in sports is important.

**Aim:** To devise methods to reduce anxiety in athletes.

**Methods:** Statistical population of this study included all male athletes' students, in single and team sports that they participate in the courses of preparation to academic competitions. Sample included 9 groups (8 experimental groups and one control group) of student athletes with age 18-28 that selected randomly and cluster from basketball, handball, futsal, football, volleyball as team sports and wrestling, taekwondo, judo, badminton, ping pong, athletic sports as single sports (n= 20). This study has been done descriptive-field and using questionnaires to investigate factors personality characteristics. Variables included anxiety (dependent variable) and body (biofeedback, massage, breathing, relaxation) and mental (self-talk, Imagery, goal setting, music) methods to reduction anxiety (independent variable). Measurement tool of this study is sports personality questionnaire (SPQ20). One of the factors measured by this questionnaire is anxiety. Validity of this questionnaire based on the criterion validity and through the study questionnaire in  $p < 0/05$  was significant and its reliability by Cronbach alpha 0/800 and in  $p < 0/05$  was significant. After selecting the study subjects, Questionnaires to complete as pre-test subjects were given after completion were collected. Subjects divided into a control and experimental athlete groups for 8 weeks, three sessions a week and a one hour session and regular activities are designed per test.

**Results:** Results showed significant difference between control and experimental groups, body and mental methods, body methods, mental methods, between pre-post tests in some methods, between single and team sports to reduce sport anxiety of athletes. Teachers and coaches according to possible experience, their abilities and their athletes abilities, can select one of these methods to reduce anxiety.

**Conclusion:** According to the results, physiological changes in body methods were most and increase self-concept and self-esteem in athletes. These factors can mostly reduce anxiety

[ygholamreza@gmail.com](mailto:ygholamreza@gmail.com)