

# International Conference on **Sports Medicine and Fitness** March 23-25, 2015 Chicago, USA

## **Injected placebos and endurance running performance**

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The placebo effect is acknowledged as a key factor in medical research and, as a result, its effect has been controlled for in clinical trials for over 50 years. However, the understanding of how the placebo effect impacts sporting performance is still in its infancy and relatively little is understood about the placebo effect on real competition performance (as opposed to tests confined to the laboratory). Studies, mostly in laboratory conditions, have shown the positive effects a placebo intervention can have on physical performance where athletes have been shown to improve performance by either exceeding performance limitations, and/or diminishing the perception of fatigue/pain. There are reports of increasing use of performance enhancing drugs in both elite and recreational level sport and in recent years a growing body of research has been undertaken into the health and performance implications of taking these substances. One such drug is erythropoietin (more commonly known as EPO), which is an endogenous glycoprotein based hormone primarily secreted by the kidneys. A key feature of r-HuEPO administration is that it is given by injection, and there is clear evidence that the route of delivery is a key mediator of the size of placebo effect, with placebos administered by injection inducing a larger effect than placebos administered orally. Novel research, covering both quantitative and qualitative aspects, is discussed in addition to ethical considerations relating to placebo performance enhancement.

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## **M-Fitness- Mobile application for fitness coaches tutorial**

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This paper proposed the fitness tutorial system via mobile phone application. M-Fitness provides the workout tutorials that are designed differently in stages. The system is divided into two approaches supported the exploration and practicing modes. The first approach is an interactive tutorial system revealed that the users how to exercise under suitable equipment for personal training purpose. The second approach is the step-by-step tutorial start from the beginner to guide the users how to use the equipment through the most important functions including VOD display via mobile phone. It also monitors the user's condition during workout and triggers a signal to warn when the user is critical condition. Moreover, the mobile application can calculate the calories burned with ongoing progress. The results from a pilot study show that the achievement system motivated the users to visit and explore the equipment and its service. On-going research, in order to enforce or train certain behaviors can combine with game elements. Due to all these reasons, the system is not only used for exploration and tutorials but also for different kinds of personal training.

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