International Journal of Physical Education

Research Article

Volume 6 | Issue 1 | April, 2013 | 1-4

Effect of music on psycho-physical variables of male cross-country athletes

■ J.P. BHUKAR AND SANJEEV KUMAR

Received : 20.09.2012; **Revised :** 01.02.2013; **Accepted :** 01.03.2013

■ **ABSTRACT**

The purpose of the study was to determine the effect of motivational music on psycho-physical variables *i.e.* Rating Perceived Exertion (RPE), Maximum Heart Rate (MHR) and Time to Exhaustion (TTE) of male cross country athletes. Twenty four (N=24) male cross country athletes of Lakshmibai National University of Physical Education, Gwalior in the age group of 20-25 years were randomly selected as subjects for the study. Subjects were randomly divided in two groups (A and B), each group had 12 participants. All the participants ran to Volitional exhaustion on two separate occasions. On trial (T_1) both group participants ran without listening music, whereas on trial (T_2) participants of Group B ran without listening music and group A participants ran while listening to preselected motivational music with intensity (115–125 beats per minute). To find out the significant difference between two trials, independent t-test was used at 0.05 level of significance. The results of this study indicated that music had psycho-physical effect on the male cross country athletes, as measured by RPE, MHR and TTE.

■ **Key Words :** Rating perceived exertion, Time to exhaustion, Maximum heart rate

■ **How to cite this paper :** Bhukar, J.P. and Kumar, Sanjeev (2013). Effect of music on psycho-physical variables of male cross-country athletes. *Internat. J. Phy. Edu.*, 6 (1) : 1-4.

See end of the article for authors' affiliations

J.P. BHUKAR
Lakshmibai National University of Physical Education, GWALIOR (M.P.) INDIA
Email: jaibhukar@gmail.com

The interplay of exercise and music has been long discussed, crossing the discipline of bio-mechanics, neurology and exercise physiology and sports psychology. Music alters emotional and physiological arousal and can therefore be used prior to competition or training as a stimulant, or as a sedative to calm "up" or anxious feelings (Bishop *et al.*, 2007). During sub-maximal exercise, music can narrow attention, in turn diverting the mind from sensations of fatigue. This diversionary technique, known to psychologists as dissociation, lowers perceptions of effort. Research shows that the dissociation effect results in a 10 per cent reduction in perceived exertion during treadmill running at moderate intensity (Karageorghis, 1999; Nethery, 2002; Szmedra and Bacharach, 1998). Although music does not reduce the perception of effort during high intensity work, it does improve the experience thereof. It makes hard training seem more like fun, by shaping how the mind interprets symptoms of fatigue. While running on a treadmill at 85 per cent of aerobic capacity (VO_2max), listening to music will not make the task seem easier in terms of information that the muscles and vital organs send the brain. Nevertheless, the runner is likely to find the experience more pleasurable. The bottom line is that during a hard session, music has limited power to influence what the athlete feels, but it does have considerable leverage on how the athlete feels.

People automatically felt the beats of the music they listen to and instinctively adjust their walking pace and heart rate to the tempo of the music. Listening to the music while exercise has been found in multiple studies to create an increased sense of motivation, distracting the mind while increasing heart rate. An athlete searching for music to incorporate in training and competition should start by considering the context in which he or she will operate (Karageorghis *et al.*, 2006). To assess the motivational qualities