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Letter to Editor

Physiology Section

Correspondance:Level of Motivation during Cardiac Efficiency Test; A Confounding Factor to Consider

HIMEL MONDAL

Dear Editor,

Samsudeen N and Rajagopalan A, contributed a good research article titled "Effect of different phases of menstrual cycle on cardio-respiratory efficiency in normal, overweight and obese female undergraduate students" in 2016 [1].

Researchers took a convenience sample from female undergraduate students for their study. A brief discussion about their current exercise or physical activity level would enrich the article. Aerobic training of the subjects helps in increasing maximal oxygen consumption as well as cardiac output which helps in continuous submaximal exercise [2].

There are several advantages of using cycle ergometer as a mode of exercise during the endurance tests. It is non weight bearing and there is less danger of falling off the instrument. But only the lower body exercise can be achieved by exercise on cycle ergometer [3]. However, the sitting arrangements of the cycle ergometer may contribute to a sense of consciousness in female subjects on menstruation during exercise test. This may interfere with performance of the subject. Motivation for exercise plays an integral part during the measurement of endurance performance [4]. Female subjects during menstruation may not have sufficient level of motivation as of luteal or follicular phase. Hence, a discussion about the 'motivation' of participant in menstruation as a confounding factor would make the article richer. In a review article by Janse de Jonge XA suggests that determinants of aerobic capacity, especially heart rate, which is the basis of submaximal exercise tests are not affected by the menstrual cycle [5]. Hence, the lower motivation level might be stressed as a factor for the lower efficiency of the participant found in the study of discussion.

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AUTHOR'S REPLY

Dear Editor,

With reference to letter to editor, we thank the author for his interest in our research work and his valuable suggestions. We agree with the author that the sense of menstruation will definitely have its impact on performance of subjects. Further, level of motivation also influences the performance. We will definitely consider these factors in our future work.