

Pakorn Chootsungnoen 2015: Physiological Responses and Technical Skills During 3 VS 3 Small-Sided Games with Different Protocol in Futsal Players. Master of Science (Sports Science), Major Field: Sports Science, Department of Sports Science and Health. Thesis Advisor: Mr. Niromlee Makaje, Ph.D. 86 pages.

The purpose of this research was to study the effects of physiological responses and technical skills during small-sided games with different protocol in futsal players. Twelve male subjects aged 13-15 years old, who were a futsal player at the Setthabut Bumpen School. The subjects were simple randomly assigned into four groups with 3 subjects in each group. Each group performed small-sided games training without goalkeeper protocol, using goalkeeper protocol and using a small goal protocol. All subjects were recorded of the physiological responses and frequency of technical skills. Data were analyzed using mean, standard deviation and one way analysis of variance ANOVA with repeated measures. Multiple comparisons were performed using the Tukey method at the 0.05 level of significance.

The result showed that heart rate, number of successful pass and the number of one touch for small-sided games training without goalkeeper protocol were significantly higher ( $P < 0.05$ ) than using goalkeeper protocol and using a small goal protocol, lactate of small-sided games without goalkeeper protocol and is used goalkeeper protocol were significantly higher ( $P < 0.05$ ) than using small goal protocol, number of ball contacts and two touch of small-sided games by using goalkeeper protocol were significantly lower ( $P < 0.05$ ) than without goalkeeper protocol and using a small goal protocol.

The result indicated that effects of physiological responses and technical skills during small-sided games training without goalkeeper protocol were higher than using goalkeeper protocol and using a small goal protocol. The finding will be useful for the applied training to improve fitness and technical in futsal players as well.

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Thesis Advisor's signature