

[09 方-ポ-39]The Effect of a 12-Week Corrective Exercise Program on Functional Movement Patterns of Male High School Soccer Players

○Nan Yang¹, Li Li² (1.Shanghai University of Sport, 2.Shanghai Yangpu District Institution of Education)

Purpose: The present study was designed to improve functional movement patterns in young soccer players by implementing corrective functional exercise developed on the basis of functional movement screen (FMS) assessment. **Methods:** 40 young male high school soccer players (mean age: 15.96 ± 1.22) were recruited to participate in the study. Their functional movement patterns, including deep squat, hurdle step, in-line lunge, shoulder mobility, active straight leg raise, trunk stability push-up, and rotatory stability, were assessed with FMS protocol before the intervention. 32 of the participants whose FMS scores were less than 14 were included in the further study and were randomly categorized into two groups: the intervention group and the control group (16 participants in either of the groups). The corrective exercise program was composed of a 1-hour training session of integration exercises of mobility, flexibility and stability, three times a week for a total of 12 weeks. The two groups were re-evaluated with FMS protocol at the end of the intervention. **Results:** A chi-square analysis showed significant differences depending on groups ($P = 0.004$) and time ($P = 0.001$). A significant decrease ($P < 0.001$) in dysfunctional movements was found among the intervention group at the end of the corrective exercise program. Statistically significant improvements were identified in total FMS scores ($P = 0.008$), trunk stability push-up ($P = 0.01$), deep squat ($P = 0.04$), in-line lunge ($P = 0.006$), and hurdle step ($P = 0.005$). However, the control group did not show any of these changes. **Conclusions:** Functional movement screen and proper corrective functional training is valuable in improving functional movement patterns of high school soccer players.

Keywords: Functional movement screen, functional training, corrective exercise, soccer player