Effect of a 12 Week Plyometric Training Programme on Explosive Power and Speed in Intercollegiate Soccer Players

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Plyometrics, also referred to as "jump training" or "plyos," encompass exercises that demand muscles to generate maximum force within short time intervals, aiming to amplify power and speed-strength. The objective of this study was to assess the impact of a 12-week plyometric training program on the development of explosive power and speed among male intercollegiate soccer players in Khammam District, Telangana State. The sample encompassed 30 soccer players, evenly divided into an experimental group (15 players) and a control group (15 players). Each group comprised a mixture of forward and defense players, selected randomly from the soccer cohort. Plyometric exercises were administered to the experimental group on alternate days, totaling three sessions per week for the duration of twelve weeks, concurrently with regular soccer training. In contrast, the control group underwent only conventional soccer training. Pre-test and post-test evaluations were conducted using the standing broad jump to gauge explosive strength and the 30-meter run to assess speed among both the experimental and control groups. Prior to intervention, the mean score for the experimental group in the standing broad jump was 2.30, while the control group's mean was 2.26. Post-training, the experimental group's mean score increased to 2.42, whereas the control group's mean remained at 2.22. A similar trend was observed in the 30-meter run, where the experimental group improved from a mean of 4.51 in the pre-test to 4.23 in the post-test. In contrast, the control group saw a slight drop in mean performance from 4.64 to 4.73. The study underscored the positive impact of plyometric training on explosive strength and speed among soccer players, with the experimental group displaying marked improvements compared to the control group. In conclusion, plyometric exercises effectively enhance explosive power in key muscle groups while also cushioning the impact forces experienced during matches.

Keywords: Plyometric Training, Speed, Explosive Power, Soccer