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EXTENDED ABSTRACT

Effect FIFA 11+ Level Three on Speed and Agility Among Soccer Athletes Under 15

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I. Introduction

FIFA 11+ Level Three, a recent extension of the widely used injury prevention program, may offer untapped benefits for youth performance enhancement. However, little is known about its effects on sprint speed and agility, particularly in soccer athletes under 15. This study investigates its impact versus traditional warm-ups, addressing key developmental and methodological gaps in current sports science literature.

II. Methods

Sixteen male soccer players (ages 12–15) were assigned to experimental and control groups in a quasi-experimental pre-post design. The experimental group followed FIFA 11+ Level Three; the control group used a traditional warm-up. Sprint speed (20-Meter Sprint Test) and agility (Illinois Agility Test) were assessed before and after a brief intervention period to evaluate performance changes.

III. Results and Discussion

A. Impact of FIFA 11+ Level Three on Speed and Agility in Youth Soccer Players

Table I showed that the FIFA 11+ Level 3 group demonstrated significant improvements in both speed and agility. Specifically, the mean 20-meter sprint time improved from 3.62 ± 0.11 seconds to 2.88 ± 0.27 seconds (p = 0.001), while agility performance improved from 18.00 ± 0.90 seconds to 16.81 ± 0.55 seconds (p = 0.003). These findings indicate that FIFA 11+ Level 3, which incorporates high-intensity, multidirectional movement patterns and neuromuscular activation, can effectively enhance physical performance in youth players, especially in explosive and reactive tasks [1][2].

Table I
Paired T-Test Results (FIFA 11+ Group)

Assessment	Pre-F11+	Post-F11+	*p* value
20-Meter Sprint (s)	3.62 ± 0.11	2.88 ± 0.27	0.001
Illinois Agility Test (s)	18.00 ± 0.90	16.81 ± 0.55	0.003

B. Impact of Normal Warm-up on Speed and Agility in Youth Soccer Players

In contrast, Table II showed that the traditional warm-up group demonstrated only a modest but statistically significant improvement in 20-meter sprint time (from 3.50 ± 0.18 s to 3.19 ± 0.30 s, p = 0.028). However, no significant change was observed in agility performance (from 19.47 ± 2.79 s to 18.23 ± 3.63 s, p = 0.059). This suggests that while traditional warm-ups may offer basic physiological readiness, they lack the targeted neuromuscular components required to meaningfully enhance agility-related performance.

Table II
Paired T-Test Results (Traditional Group)

Assessment	Pre-T	Post-T	*p* value
20-Meter Sprint (s)	3.50 ± 0.18	3.19 ± 0.30	0.028
Illinois Agility Test (s)	19.47 ± 2.79	18.23 ± 3.63	0.059

C. Comparative Analysis of FIFA 11+ Versus Traditional Warm-Up on Speed and Agility

Table III showed that the 20-meter sprint performance was better in the FIFA 11+ group (2.88 ± 0.27 s) compared to the traditional group (3.19 ± 0.30 s), with a borderline significant difference (p = 0.050). This suggests that the FIFA 11+ Level 3 program may offer a practical advantage in short-distance sprinting, which is a critical component of match performance in youth soccer. Despite the lack of statistical significance in the Illinois Agility Test (FIFA 11+ = 16.81 ± 0.55 s; Traditional = 18.23 ± 3.63 s; p = 0.226), the FIFA 11+ group still demonstrated numerically superior agility performance. The absence of significance could be attributed to the high variability in the traditional group's performance (as seen in the larger standard deviation), as well as a relatively small sample size, which may have reduced the statistical power. These findings are consistent with previous studies indicating that FIFA 11+ programs, especially advanced levels like Level 3, can contribute to improvements in explosive and reactive movement qualities due to their dynamic and sport-specific structure [3][4]. However, the modest between-group differences imply that while FIFA 11+ may be more effective,

traditional warm-ups may still offer baseline physiological readiness, albeit with less consistency and specificity.

TABLE III
INDEPENDENT T-TEST (FIFA 11+ AND TRADITIONAL GROUP POST-TEST)

Assessment	Fifa 11+	Traditional	*t(df)*	*p* value
20-Meter Sprint (s)	2.88 ± 0.27	3.19 ± 0.30	t (14) = -2.147	0.050
Illinois Agility Test (s)	16.81 ± 0.55	18.23 ± 3.63	t (14) = -1.268	0.226

IV. CONCLUSIONS

This study demonstrated that the FIFA 11+ Level 3 warm-up program significantly improved sprint speed and agility among under-15 soccer athletes. Compared to traditional warm-up routines, the FIFA 11+ Level 3 produced greater enhancements in 20-meter sprint and Illinois Agility Test performance, although between-group differences were only borderline significant for speed and non-significant for agility. These findings suggest that incorporating FIFA 11+ Level 3 into regular training may offer meaningful short-term performance benefits, especially in explosive movements critical to soccer performance. Future studies with larger samples and longer durations are recommended to further validate these effects.

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