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**EXTENDED
ABSTRACT**

Effect of FIFA 11+ Level 3 on Balance and Agility of Young Adult Football Players

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I. INTRODUCTION

The intervention's effects on FIFA 11+ is a well-established injury prevention program; however, the benefits of its Level 3 protocol on neuromuscular performance remain underexplored [1]. This study evaluates the effectiveness of FIFA 11+ Level 3 on balance and agility in youth football players, offering comparative insights against traditional warm-up routines [2]. Understanding these effects could inform training strategies for enhancing postural control and movement efficiency in young athletes [3].

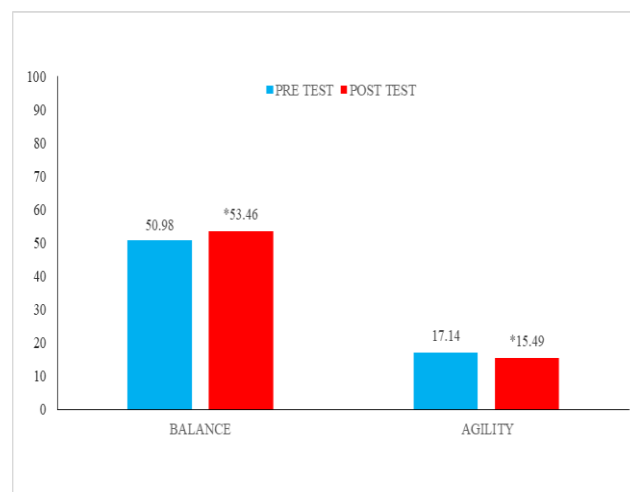
II. METHODS

20 young adult footballers were assigned to two groups: the FIFA 11+ Level 3 group and the traditional warm-up group. Balance was assessed using the Y balance test, while agility was evaluated using the Illinois Agility Test; both were assessed immediately before and after the warm-up. The data were analyzed using paired sample t-tests to assess within-group changes and independent sample t-tests to compare between-group differences.

III. RESULTS AND DISCUSSION

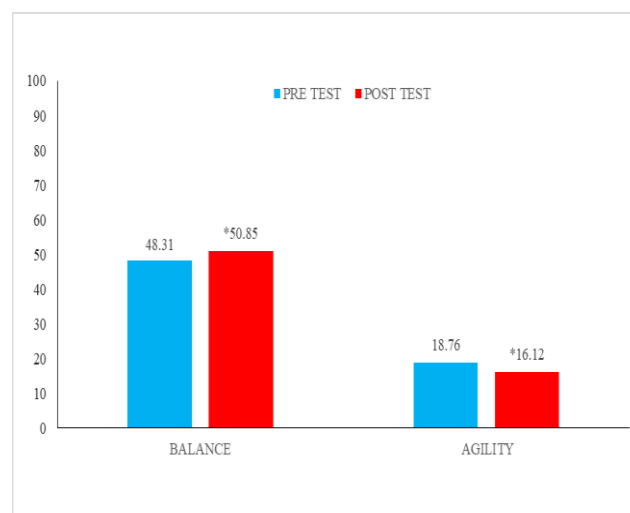
A. Effect Of FIFA 11+ Level 3 and Traditional Warm-Up on Balance and Agility

Participants in the FIFA 11+ Level 3 group exhibited notable enhancements in both stability and movement performance. Their balance scores increased significantly, while their agility improved, as shown by a reduction in the time taken to complete a standard movement course ($p < 0.05$). These outcomes indicate that the FIFA 11+ Level 3 routine may effectively enhance motor control and functional movement among young adult footballers. The traditional warm-up group also recorded significant progress, with measurable gains in balance and agility ($p < 0.05$). This suggests that both warm-up approaches contribute positively to physical preparedness and overall movement quality.



* $p < 0.05$

Fig. 1 Effect of FIFA11+ Level 3 on balance and agility



* $p < 0.05$

Fig. 2 Effect of Traditional warm-up on balance and agility.

B. Comparison Between FIFA 11+ Level 3 and Traditional Warm-Up

Results from the Independent t-test indicated statistically significant differences between the FIFA 11+ Level 3 group and the traditional warm-up group in both balance and agility, with $p < 0.05$. However, descriptive analysis suggests that the FIFA 11+ Level 3 group exhibited greater improvements in both variables compared to the Traditional warm-up group.

TABLE I
COMPARISON BETWEEN FIFA 11+ AND TRADITIONAL WARM-UP IN
BALANCE AND AGILITY

Variables	Group	Mean (SD)	t	df	Sign (2-tailed)
Balance	FIFA 11+	2.48±0.72	-.148	18	0.844
	TRADITIONAL WARM UP	2.53±0.94	-.148	16.90	0.844
Agility	FIFA 11+	1.65±0.80	2.136	18	0.47
	TRADITIONAL WARM UP	2.64±1.22	2.136	15.47	0.49

* $p < 0.05$

IV. CONCLUSIONS

The findings of this study revealed that the FIFA 11+ Level 3 warm-up led to improvements in balance and agility among young adult football players. However, these improvements are greater than those observed in the traditional warm-up group. This suggests that FIFA 11+ Level 3 warm-up has performance-enhancing potential; it is more effective than traditional warm-up methods in eliciting measurable gains in reaction-based outcomes. One possible explanation for this limited effectiveness is the nature of FIFA 11+ as a warm-up protocol, rather than a long-term or intensive neuromuscular training program. The FIFA 11+ program is effective in enhancing both balance and agility in football players. The meta-analysis confirms significant improvements in dynamic balance and agility across various populations, while the controlled trial specifically highlights improvements in static and dynamic balance among youth players.[4].

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REFERENCES

- [1] Bizzini, M., & Dvorak, J. (2015). Physiological and performance responses to the “FIFA 11+” (Part 1): Is it an appropriate warm-up? *Journal of Sports Sciences*, 31(1), 1–?. <https://doi.org/10.1080/02640414.2013.802922>.
- [2] Daneshjoo, A., Mokhtar, A. H., Rahnama, N., & Yusof, A. (2013). The effects of FIFA 11+ warm-up program on kinematic risk factors of anterior cruciate ligament injury in male soccer players. *PLoS ONE*, 8(5), e65057. <https://doi.org/10.1371/journal.pone.0065057>.
- [3] Granacher, U., Lesinski, M., Büsch, D., Muehlbauer, T., Prieske, O., & Behm, D. G. (2016). Effects of resistance training in youth athletes on muscular fitness and athletic performance: A conceptual model for long-term athlete development. *Frontiers in Physiology*, 7, 164. <https://doi.org/10.3389/fphys.2016.00164>.
- [4] Gomes Neto, M., Conceição, C. S., de Lima Brasileiro, A. J. A., de Sousa, C. S., Carvalho, V. O., & de Jesus, F. L. A. (2017). Effects of the FIFA 11 training program on injury prevention and performance in football players: A systematic review and meta-analysis. *Clinical Rehabilitation*, 31(5), 651–659. <https://doi.org/10.1177/0269215516675906>.